

# Portland Water District



**Administrative Office**  
**225 Douglass Street**  
**Portland, ME 04101**

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General Manager

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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 2<sup>nd</sup> and 4<sup>th</sup> Monday of every month. The Board will review the proposed budget at the November 23rd 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 2016?*

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](http://www.pwd.org) regularly or follow us on Facebook and Twitter.

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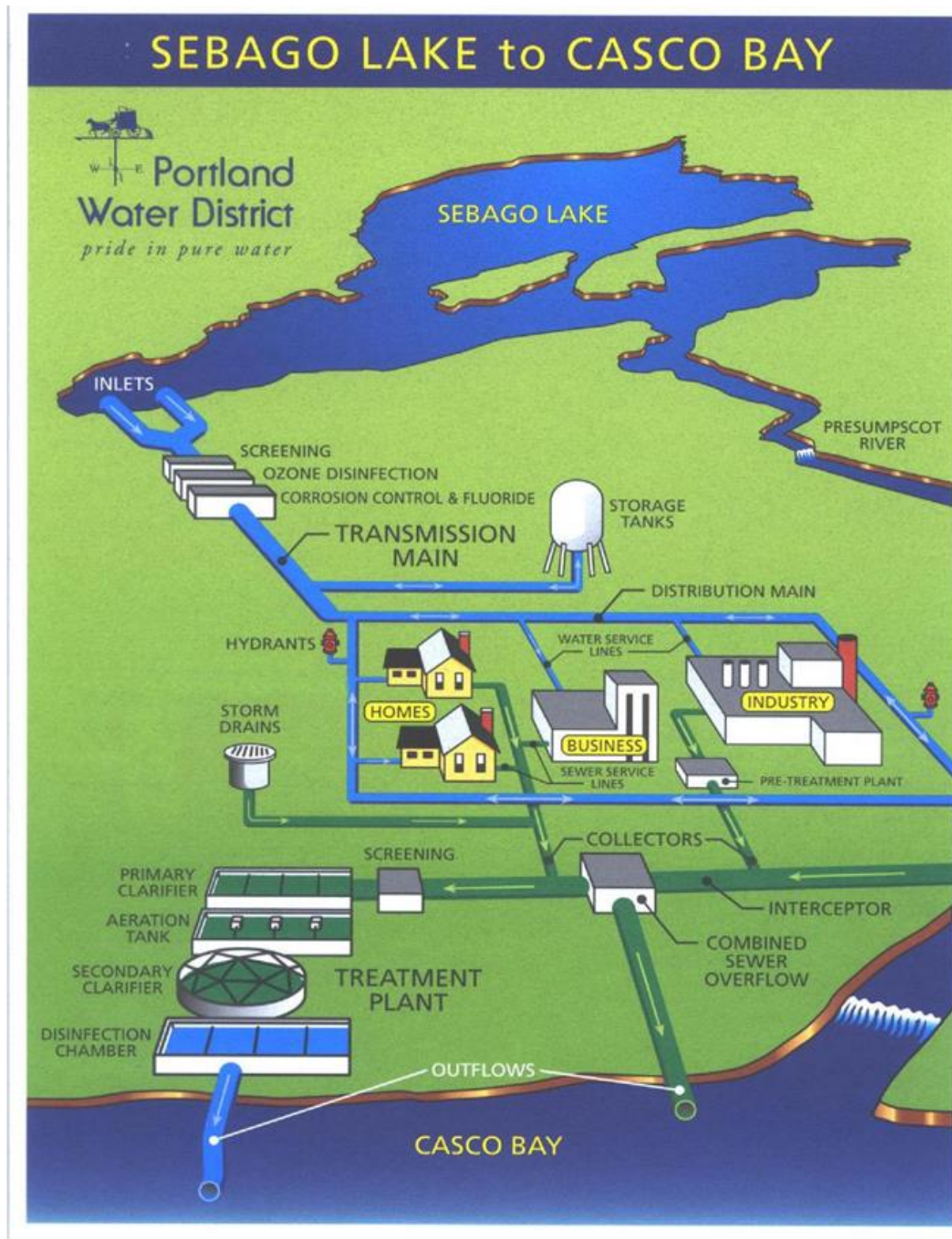
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## Overview of the Water and Wastewater System

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 26, 2015

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 2016. 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 108th 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 2016 budget includes an Environmental Services staff of eight with an operating budget of more than \$1,080,000 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 2016 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 treatment process and starting in 2015 the District began its first full year of operating a new \$12 million ultraviolet/ozone treatment system to comply with Environmental Protection Agency's enhanced rules. The 2016 budget includes debt service payments for the treatment system upgrade of almost \$950,000, which is 4.2% 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. A 2003 master plan identified \$175 million of distribution system needs over 20 years, and we are making progress towards meeting that need. 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 90 miles of pipe and 64 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 2016 will include beginning work on the \$12 million aeration system upgrade at the Portland Wastewater Treatment Plant and 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 2016, the data focus will be on digitizing the location of customer associated assets such as water service lines and meters.
- **Customer Service Options:** The District will continue to expand customers "on demand" access to a variety of common transactions through telephonic and on-line tools.
- **Public Relations:** Customers having an understanding of the benefits of well-maintained system that delivers quality water to customers' homes and treats their wastewater 24/7 is important. Continued efforts will be made in 2016 continuing the 'value of water' campaign and water bottle water filling station grant program.

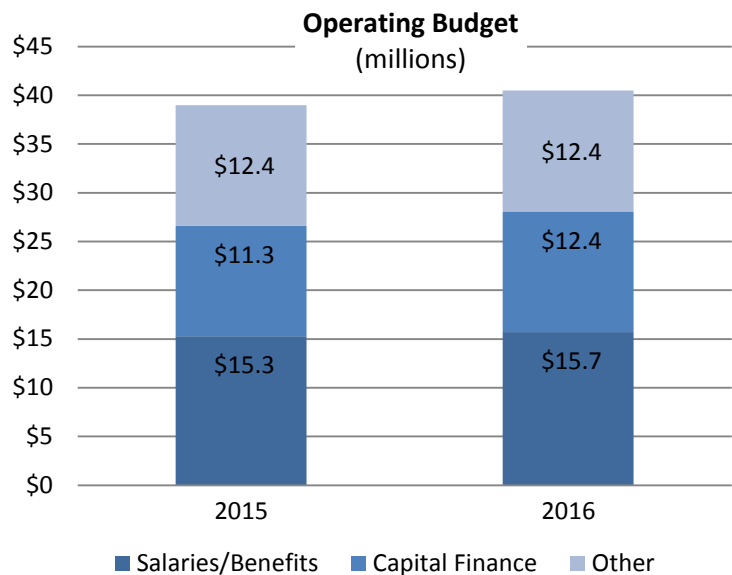
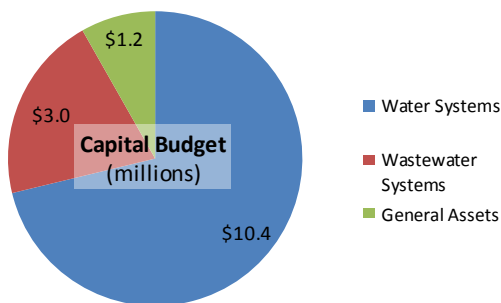
### Financial Overview

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

The proposed budget for 2016 recommends \$40.5 million for operations and \$14.6 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 2.0% (\$200,000) and increased pension costs (\$192,000; 19% higher). Health insurance costs are lower than the previous year partially due to increased employees' contributions. Capital financing cost are \$1.1 million higher due to debt service to finance water main renewals and treatment plant upgrade, aeration system upgrade at Portland wastewater treatment plant and wastewater collection system upgrade in Westbrook. Total other expenses are virtually flat with only an \$8,714, or 0.1%, increase from prior year.

The significant changes in specific line-items include:

- Higher contracted engineering services to support operations (\$55,000),
- Lower heat and fuel costs due to lower unit prices (\$50,000),
- Consultant costs to conduct the periodic water rate cost of service study (\$20,000).



The capital budget includes \$10.4 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 \$3.0 million wastewater system capital budget includes \$1.0 million to upgrade the sludge dewatering system at the Westbrook Regional Wastewater Treatment facility.



# Budget Highlights

NEW INITIATIVES	BUDGET SUMMARY	CHALLENGES AND ISSUES
<p>Investing an additional \$7.0 million in water main renewal; including \$2.0 million through new 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 \$40.5 million, an increase of \$1.5 million or 3.8%.</p> <p>Total Revenues are projected at \$40.5 million, which assumes a 3.73% water rate increase and wastewater assessments that meet the municipalities' expectations.</p> <p>The Capital Budget is proposed at \$14.6 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>Improving but relatively weak economic growth limits revenue growth from new customers.</p>

## Customer Impact

The proposed budget assumes a 3.73% rate adjustment effective May 1, 2016. The increase is consistent with the Board's intent to adopt small water rate adjustments annually. For a typical customer, the impact is \$8.52 a year or \$0.71 a month. Of the 3.73% rate adjustment, 2.73% 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, Westbrook and Windham remain the same as last year. Cape Elizabeth's, Cumberland's and Portland's assessments increase by 2.2%, 2.5% and 1.0%, respectively.

The 2016 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

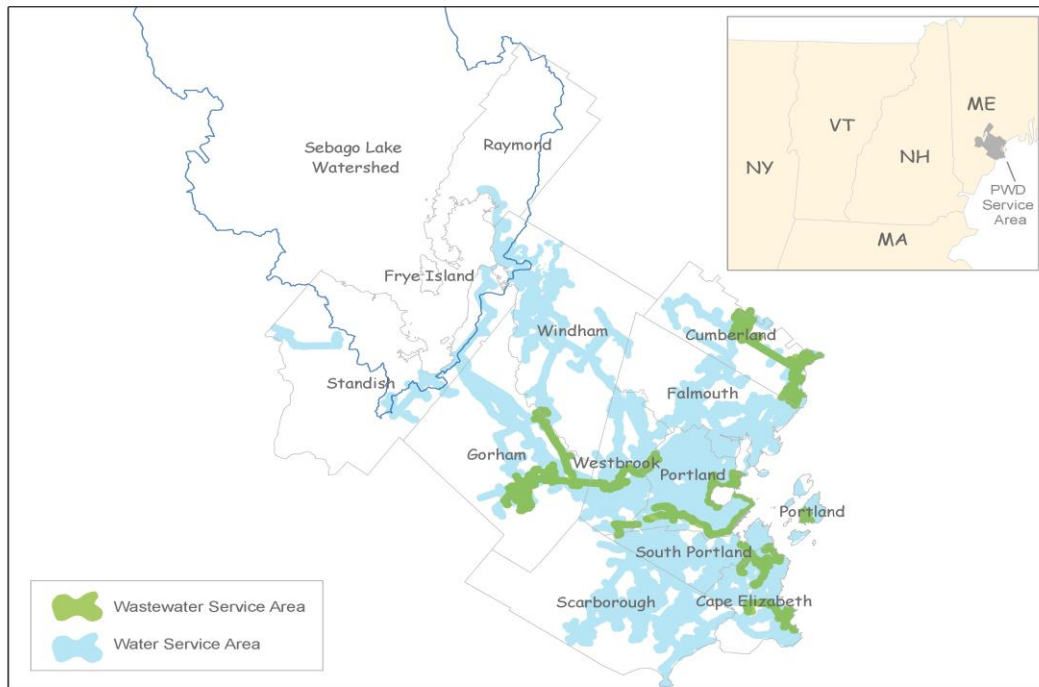
## Introduction

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 52,020 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:

	By Charter:		By Contract:			
Community	Customers	Treatment	Interceptors	Collectors	Storm Drains	Billing
Cape Elizabeth	2,296	Yes	Yes	No	No	Yes
Cumberland	1,084	No	Yes	Yes	No	Yes
Falmouth	1,914	No	No	No	No	Yes
Gorham	1,705	Yes	Yes	Yes	No	Yes
Portland	16,968	Yes	Yes	Peaks Island (only)	Peaks Island (only)	Yes
Scarborough	405	No	No	No	No	Yes
South Portland	7,793	No	No	No	No	Yes
Westbrook	4,520	Yes	Yes	No	No	Yes
Windham	51	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 expecting a better product, and the emergence of newly detected contaminants and pathogens which did not exist or were unidentified years ago. 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 with the Board committing to double the main renewal budget by 2016. In 2014, the Board established a capital reserve fund that will provide an additional \$2 million available for main renewal. A \$7.0 million investment in water main replacement is budgeted for 2016. 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.

### *Good Place To Live*

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*

This month, CardHub released its Back-to-School Report, which identifies cities and states with the best learning environments for children. The report listed Portland, Maine as 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

### *Good Place to Visit*

In total, the City's port will host a 15% increase in passengers this year with 74 cruise ship visits and more than 97,000 passengers between June and November

**Portland Metro Region one of the Best Restaurant Areas in the Country**

*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 National Geographic Traveler** 11-2008

### *Economic Hub of Maine*

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 government, 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 with an 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 2016, the District's Board of Trustees will consider a 3.73% rate adjustment. The chart on the next page outlines the process the District will follow in 2016. 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 3.73% 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.

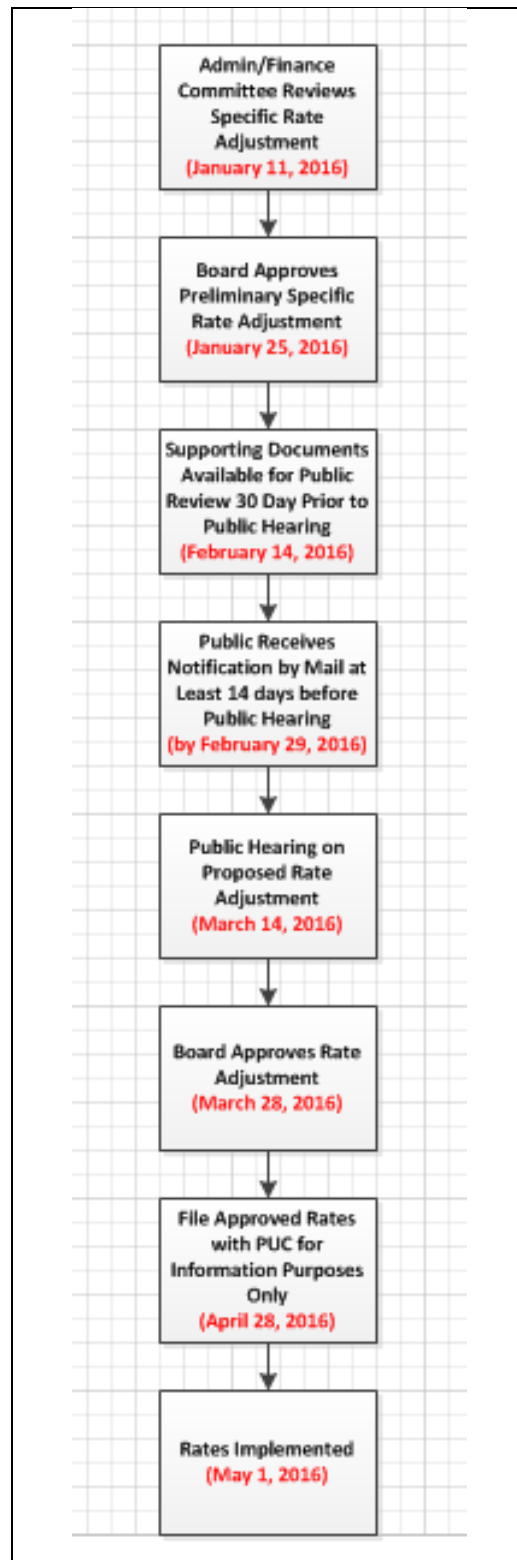
The District filed for exemptions from certain state regulations and the ability to implement local review and rules.

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 has been approved and will become effective January 1, 2016.

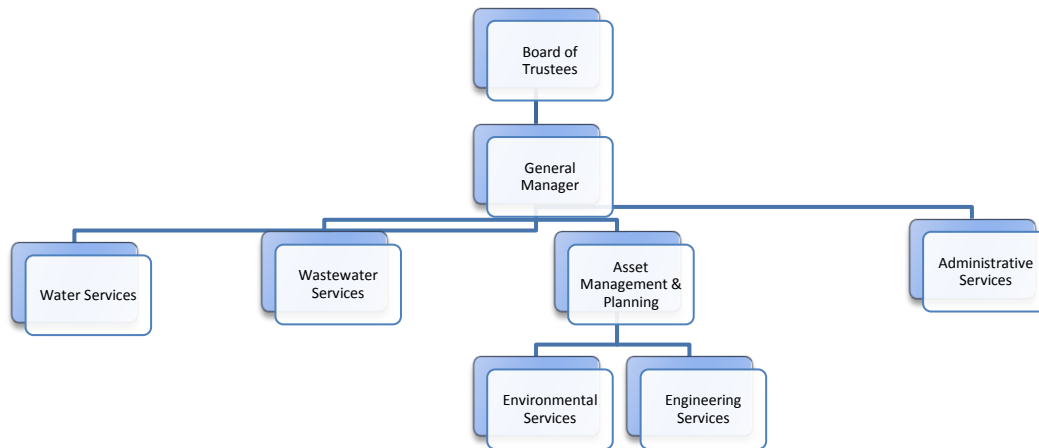
## The Regulatory Environment in Which We Function (continued)

### Rate Case Process

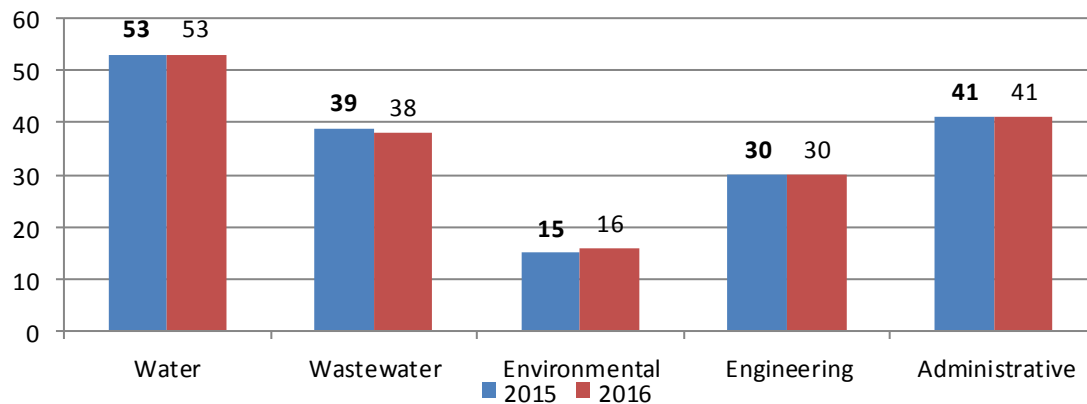


## Organization Structure

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. Reduced by 1 treatment plant operator.
- **Environmental Services** provides watershed protection and laboratory services. Increased by 1 reflects the creating a full-time educator position.
- **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:
<b>Mission Statement and Strategic Goals.</b> 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
<b>Annual Budget Guidelines by Board.</b> Broad guidelines were established providing important budget parameters.	Introduction Section, Board Established Annual Budget Guidelines
<b>External Factors.</b> A review of the industry, economic, and stakeholders' trends provided information to make better planning decisions.	Introduction Section, External Factors Impacting the Budget
<b>Multi-Year Ratemaking Revenue Projections.</b> 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.
<b>Capital Master Plans and Asset Evaluations Studies.</b> Proposed budget incorporates recommendations from the various infrastructure plans/studies.	Capital Expenditures Section, Infrastructure and Operational Evaluation Plans
<b>Customer Satisfaction Survey.</b> 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
<b>Workforce Management.</b> 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
<b>Financial Policies.</b> 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

- 8 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.
- 25-29 Senior Managers host meetings with Department Managers to review budget parameters and process

### June

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

### July

- 10 Board review Staff's recommended guidelines and provides policy and high-level direction for the Budget.
- 17 Senior Management Team provides feedback on first draft submittal and Board feedback
- 24 Department Managers submit second draft Operating Budget and preliminary-level Capital & Non-capital projects and initiatives.

### Aug

- 17-21 Department Managers present second draft Operating and Capital budget to the Senior Management Team.

### Sep

- 11 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

- 26 Budget is presented to the Board of Trustees.

### Nov

- 9 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.
- 23 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 27 and November 6. By January 15, 2016, the District notifies the municipality of 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 are measured weekly at forty-three locations throughout the service area, and the treatment process is adjusted continuously to maintain desired levels.

<b>Benchmarks:</b>	<b>1998</b>	<b>2003</b>	<b>2008</b>	<b>2013</b>
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 has been made for the design process of 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 \$5.5 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 utilizing 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>
<b><u>Compliance with discharge permit:</u></b>			
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 2016, 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 conducts a formal customer satisfaction survey periodically. 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 recently completed and indicates satisfaction continues to be high with 82% 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.

In 2016, 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 purchase of additional backup generators for pump stations to provide reliable source of electricity during bad weather events 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 3.73% 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 2016 and 2015 for all municipalities except for Cape Elizabeth, Cumberland and Portland. Assessment increase in Portland (3%) is higher due to the capital financing costs related to upgrades at the Fore River pump station and East End Treatment Plant. Cape Elizabeth's assessment increase (2.2%) is slightly higher due to municipal requested project – Garden Lane pump station upgrade. Cumberland's assessment increase (2.5%) is slightly higher due to their request to upgrade the Mill Creek Pump Station to add additional capacity to handle economic growth.

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 have reorganized its staff and continue 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 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 costs. 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 slightly above average for our industry (last 10 years average is 1.08; 2015 factor increased to 1.16).

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 2015, we strengthen our incident investigation process to ensure improved data collection to aid job hazard prevention.

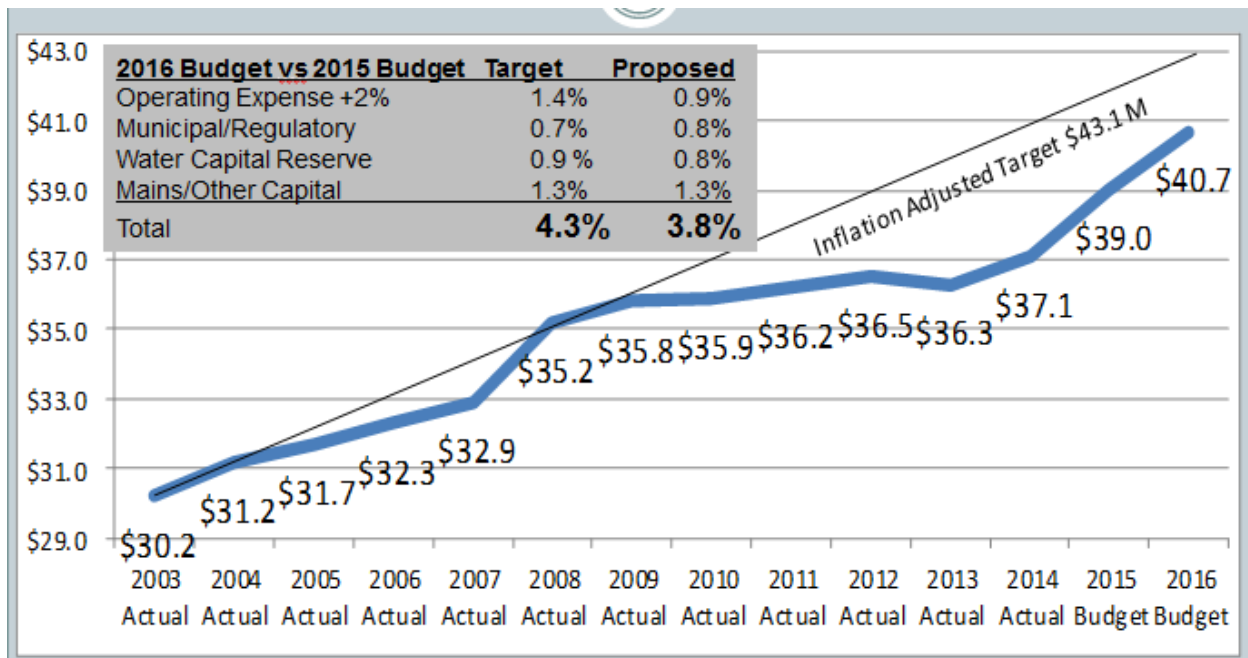
Management development and consistency of practice efforts continue through "Lunch and Learns". This effort impacts both our training and employee satisfaction goals.

## 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 2% inflation rate for operation expenses plus expected capital related expense, the 2016 operating budget target increase was established to not to exceed 4.3%. The resulting budget target of \$40.7 would be almost \$3.0 M less than the budget would be 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 \$40.5 million, \$0.2 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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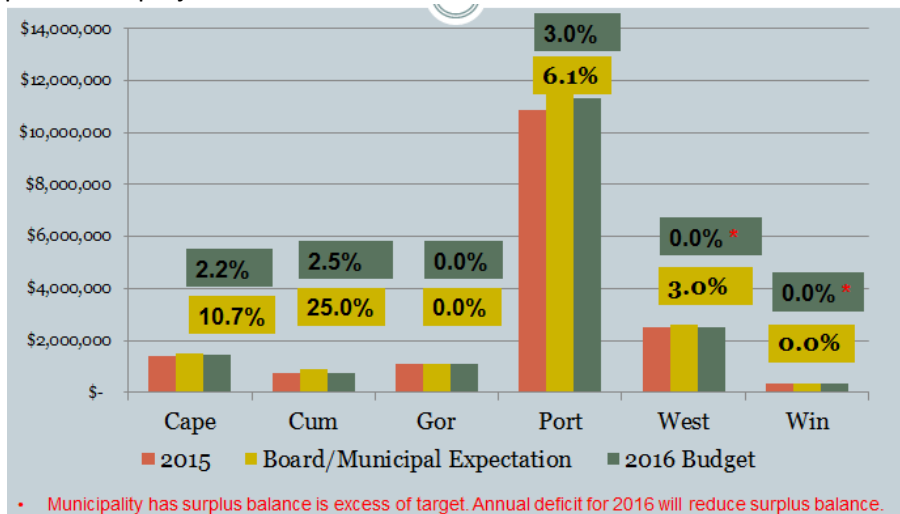
A guideline was established to assure capital projects are consistent with various plans including the Water Master Plan, Comprehensive Plant and System plans, and Combined Sewer Overflow plans. **The proposed capital expenditures meet the guidelines** – see Infrastructure and Operational Evaluation Plans in the Capital Expenditures section for details.



## Board Established Annual Budget Guidelines (continued)

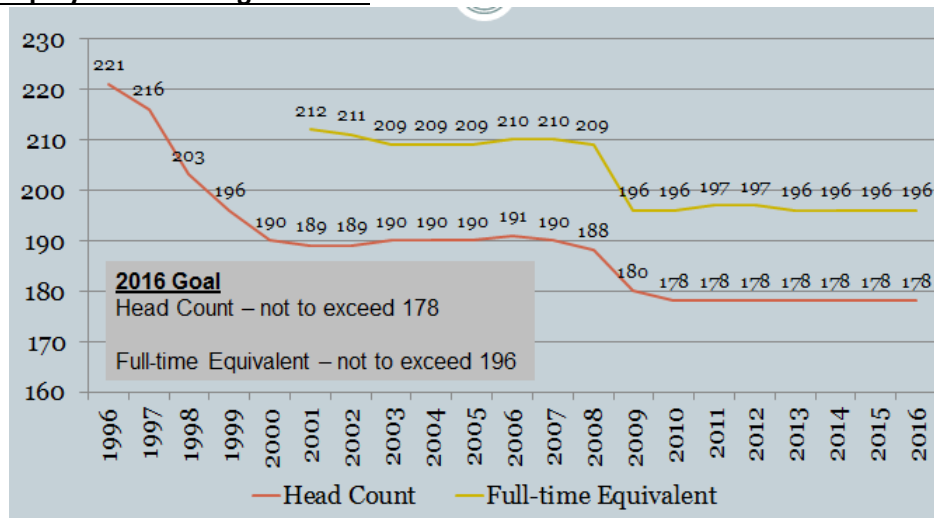
<u>Guideline</u>	Water Revenue Requirement and Wastewater Assessments increases will not exceed the rate of inflation excluding the impact of mutually agreed upon changes in services, capital investments, surplus fund utilization or Board's request to increase surplus balance.
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**All Wastewater assessments and Water Rates Increases meet or are below the Board of Trustees and Municipal targets.** Cape Elizabeth's, Cumberland's and Portland's Assessment are higher than inflation due to higher costs related to requested or approved capital projects. Water rates are scheduled to increase 3.73% in 2016 – higher than inflation due to higher costs related primarily due to higher level of water main replacement 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 194.4 full-time equivalent employees – meeting the Goal.**



## External Factors Impacting the Budget

### Economy

The local economy continues to make improvement from the national recession. State unemployment level has returned to pre-recession levels at 4.5%, which is better the prior year's rate of 5.6% (as of August 2015). The unemployment rate is better than national unemployment rate of 5.1%. Cumberland County's unemployment rate is 2.9%, which is 1.0% better than last year.

Greater Portland's real estate market continues to rebound. In 2014, the number sales grew by over 6% and are now at a higher level than before the recession though the median price remains below the pre-recession price by almost 3%. In the 2016 budget, the water consumption projection includes the same number of households as of June 30, 2015 and assumes no customer growth. A typical year's growth in new customers is 1.5% (750 accounts).

The recession impacted the financial markets, resulting in continued lower than historical interest earning on investments and interest expense on debt. However, both investment and bond rates have risen in the past year. The 2016 budget includes a \$32,021, or 42% increase, in earnings from operating funds investments as the average rates increase to 0.43% from 0.26%.

The poor equity market returns in the past year combined with union negotiated increase in benefit in November 2014 continues to cause the annual pension costs to increase. The 2016 estimated actuarially determined contribution to our pension plans are almost \$1,191,500, which is \$191,500 or 19% higher than the prior year.

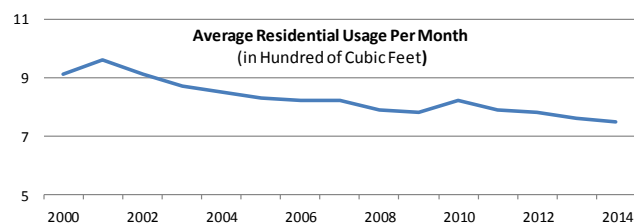
The chemical, metal and fuel commodity market prices are impacted by the economy's health and have been volatile in the past couple of years. With the slower global economic growth, the lower demand for chemicals has resulted in lower per unit prices for chemicals purchased by the District. Approximately 10% of the District's expenses are related to chemical, metal and fuel markets. The 2016 budget reflects the commodity prices available in mid-2015.

### 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 2016 Budget includes the impact of debt service of \$12.5 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 18%. 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 (\$10.36 million or 25.6% of total budget). The latest three-year union contract is expires at the end of October 2015. For 2016 budget purposes, union wage rates were assumed to increase by 2.0% effective November 1, 2015. Non-union pay rates were assumed to increase by 2.0% effective January 1, 2016. A 1.0% variance on both union and non-wages would be approximately \$70,000 and \$41,000, respectively.

In addition, the budget assumes 14,102 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 \$36,000.

Purchased Power (\$1.79 million or 4.4% of total budget). Electricity costs consist of delivery charges purchased from Central Maine Power (\$700,401) and energy costs purchased from Constellation Energy (\$1,098,317). Typically, CMP implements a rate adjustment effective July 1<sup>st</sup>. The amount of the 2016 increase is unknown. The 2016 assumes a 4% increase. For every variance of 1%, the budget would be impact approximately \$7,000. Energy contracts locks in the prices for virtually the whole year, except for a portion of the three large accounts (Water Treatment and East End Wastewater Treatment/India Street pump station) which have 34% for May to December and 40% for November, respectively, not locked in and will pay the market rate. The budget assumed a market rate of \$.05/kwh, which is higher than October 2015 market rate of \$.03/kwh.

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

Chemicals (\$1.10 million or 2.7% 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 (\$0.38 million or 1.7% of total budget). The prices assumed for heating oil and vehicle fuel in the budget are the actual rates through December 2016. The price for natural gas, which is used for heat at the East End WWTF, is budgeted for \$112,402 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 to be produced by the water treatment facility. For the 2016 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 1.4% greater than the 2015 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 reducing the amount of premium (i.e. overtime, double time, etc.) compensation was made while planning for 2016, including the \$6,697 reduction in the 2016 budget. Over the past four budgets premium time has been reduced from \$551,043 in the 2012 Budget to \$507,805 in the 2016 Budget without reducing service levels.

In 2016, Water and Wastewater Services continues to make staff changes that are consistent with the goal of creating positions whose job responsibilities are defined more broadly. This long-term goal creates a more versatile, responsive work force and requires improved information sharing systems and processes. The 2016 budget includes 13 entry level positions (nine 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 2016 budget continues our emphasis on training employees with the continued goal of providing an average of 80 hours training.

Employee Benefits The most costly employee benefits are health insurance and pension benefits. In 2016, the employees' health insurance co-pay percent was increased to 6.0% from 5.0%. That change, alone with an average rate decrease of 0.91% resulted in a budget reduction savings of \$92,328. The defined benefit plan contributions in the 2016 Budget increased \$191,500 (19.2%) to \$1,191,500. 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 2016. 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 \$60,000 was allocated in 2016 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 2016 budget continues this effort by allocating close to \$110,000.

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 meters and \$44,000 decrease in the Gorham Wastewater fund.

## **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 2016, the amount dedicated to replace aging water mains will increase by \$0.5 million to a total of \$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 2016.
- **Portland Wastewater pump station upgrade:** The Fore River pump station will be upgraded after over 30 years of service (\$1,400,000). Project is scheduled to be completed in 2016.
- **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).
- **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).

### **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 2016 budget assumes a 3.73% increase in rates.

The 3.73% 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 its 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 \$40.55 million in revenues and \$40.50 million expenses.

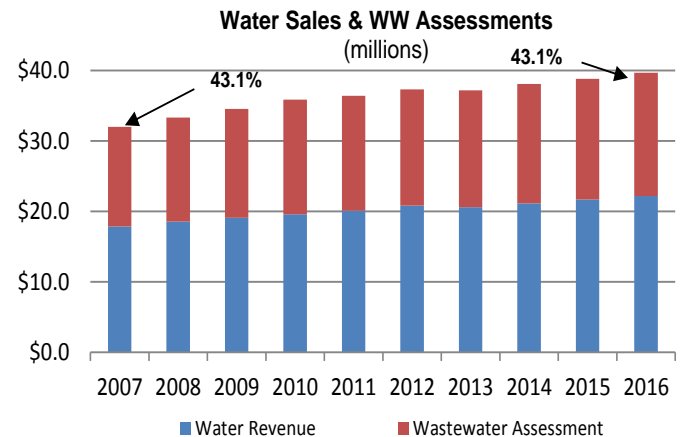
### Revenues

The two major revenue sources are water sales (\$22.21 million or 54.8% of total revenue) and wastewater assessment revenues (\$17.49 million or 43.1% of total revenue). Wastewater revenues have increased from \$14.15 million, or 43.1% of total revenue, since 2007 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 2016 Budget assumes an increase of 3.73% over current rates on May 1, 2016.

Wastewater assessments are the amounts billed individual municipalities to provide collection, sewer treatment, interception, utility

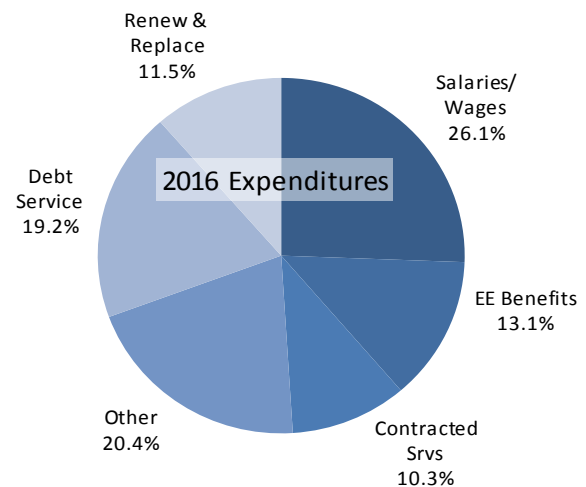
billing services and, by request, collection and billing services. Assessments in 2016 increased 2.2% overall (\$377,016).



### Expenses

Departmental Expenses increased to \$40.5 million, an increase of 3.8%.

Personnel Costs, (Salaries/Wages and employee Benefits) which are 39.2% of the total budget, increased 2.4% due to labor/benefit rate increases (2.0% & 1.9%). Debt Service (19.2% of expense) increased 13.9% due to new debt issues. Contracted Services rose 2.1% (\$87,057), Renewal and Replace contributions increased \$152,672 (3.4%) while Other Expense increased \$25,298 (0.3%).



## Capital Budget Summary

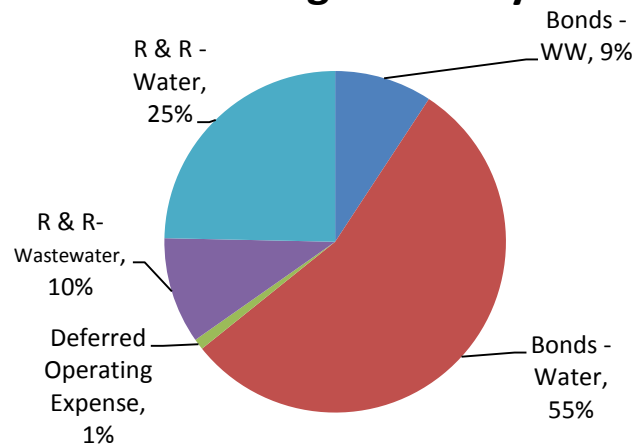
The proposed Capital Budget is \$14.6 million with projects for the water and wastewater funds of \$11.6 and \$3 million, respectively.

### Water

Of the \$11.6 million in water capital projects, the largest component (72.4%) involved the renewal of water distribution assets such as mains, services and hydrants. The other categories include the 407 zone (17%), facilities & security (3%), vehicles & equipment (3.4%), technology & SCADA (2%) and meters (2.2%).

The projects will be funded by issuing \$8 million in bonds and utilizing \$3.6 million in renewal and replacement proceeds.

### Financing Summary

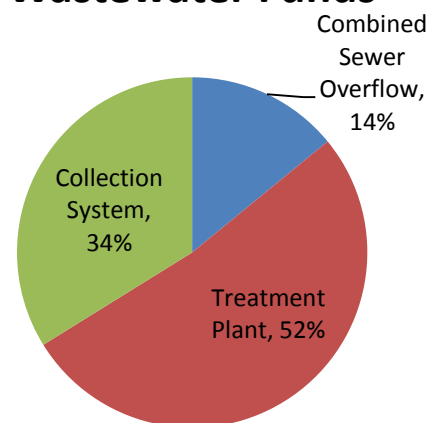


### Wastewater

The largest project included in the \$3 million wastewater capital plan is \$1 million upgrades to the sludge dewatering system at the Westbrook Regional treatment facilities.

The projects will be funded by issuing \$1.35 million in bonds and by utilizing \$1.6 million in renewal & replacement fund proceeds and \$150,000 from Deferred Operating Expense, which will be expensed in future years.

### Wastewater Funds



## Combined Water and Wastewater Operating Funds

Total revenues are \$40.55 million, \$0.92 million or 2.3% higher than last year's budget. The 2016 Budget proposes a 3.73% water rate increase (effective 05/31/16). Wastewater Assessments increases for the full year are budgeted in Cape Elizabeth (2.2%), Cumberland (2.5%) and Portland (3.0%).

Departmental Expenses are \$40.51 million, an increase of 3.8%. The following pages provide additional details.

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Beginning Fund Balance</b>	<b>\$9,509,031</b>	<b>\$9,990,457</b>	<b>\$10,462,598</b>	<b>\$11,148,346</b>		
Water Sales	20,738,959	10,238,963	21,690,890	22,213,173	522,283	2.4%
Assessment Income	16,972,320	8,558,142	17,116,284	17,493,300	377,016	2.2%
Contracted Billing Income	218,016	109,008	218,016	218,220	204	0.1%
Interest Income	87,245	71,631	76,236	108,257	32,021	42.0%
<u>Other Income</u>	<u>563,501</u>	<u>231,626</u>	<u>526,280</u>	<u>515,970</u>	<u>(10,310)</u>	<u>-2.0%</u>
<b>Total Revenue</b>	<b>38,580,041</b>	<b>19,209,370</b>	<b>39,627,706</b>	<b>40,548,920</b>	<b>921,214</b>	<b>2.3%</b>
Salaries & Wages	9,699,724	4,739,543	10,178,032	10,361,351	183,319	1.8%
Employee Benefits	4,662,451	2,422,958	5,118,429	5,308,818	190,389	3.7%
Biosolids Disposal	1,462,622	734,920	1,387,398	1,390,252	2,854	0.2%
Chemicals	1,086,724	471,844	1,070,838	1,100,862	30,024	2.8%
Contracted Services	3,491,349	1,985,099	4,084,006	4,171,063	87,057	2.1%
Deferred Cost W/O	103,444	14,744	29,488	24,486	(5,002)	-17.0%
Heat/Fuel Oil	454,458	332,950	499,058	448,844	(50,214)	-10.1%
Insurance	183,785	98,983	204,560	200,164	(4,396)	-2.1%
Materials & Supplies	1,599,296	779,854	1,611,952	1,602,150	(9,802)	-0.6%
Other Expense	657,211	328,390	806,267	748,253	(58,014)	-7.2%
Purchased Power	1,699,980	928,237	1,790,652	1,786,094	(4,558)	-0.3%
Regulatory/Taxes	214,999	180,085	226,586	214,896	(11,690)	-5.2%
Tele/Other Utilities	287,915	166,428	317,429	350,638	33,209	10.5%
Transportation	1,118,928	607,405	1,297,239	1,215,348	(81,891)	-6.3%
<u>Trans Offset</u>	<u>(749,985)</u>	<u>(387,174)</u>	<u>(898,062)</u>	<u>(816,925)</u>	<u>81,137</u>	<u>-9.0%</u>
Departmental Expense	25,972,901	13,404,266	27,723,872	28,106,294	382,422	1.4%
Debt Service	6,943,854	3,403,771	6,810,658	7,756,603	945,945	13.9%
Renewal & Replacement - Direct	3,732,950	1,998,181	3,996,362	4,049,034	52,672	1.3%
<u>Renewal &amp; Replace - Indirect</u>	<u>490,000</u>	<u>245,000</u>	<u>490,000</u>	<u>590,000</u>	<u>100,000</u>	<u>20.4%</u>
<b>Operating Expense</b>	<b>37,139,705</b>	<b>19,051,218</b>	<b>39,020,892</b>	<b>40,501,931</b>	<b>1,481,039</b>	<b>3.8%</b>
Current Year Surplus (Deficit)	1,440,336	158,152	606,814	46,989		
Transfer to Water Capital Reserve	(119,679)	(33,416)	(66,831)	(16,208)		
Transfer to Water Land Fund	(364,000)	-	-	-		
Land Cash Reserve Expense	134,240	-	-	-		
Transfer to R&R Reserve	(609,471)	-	-	-		
Return of WW Accumulated Surplus	-	(42,000)	-	-		
<b>Ending Fund Balance</b>	<b>9,990,457</b>	<b>10,073,193</b>	<b>11,002,581</b>	<b>11,179,127</b>		
Operating Expense (above)	37,139,705	19,051,218	39,020,892	40,501,931		
<u>Capital Expenditures</u>	<u>9,498,133</u>	<u>1,884,665</u>	<u>24,962,597</u>	<u>14,595,000</u>		
<b>Total Expenditures</b>	<b>46,637,838</b>	<b>20,935,883</b>	<b>63,983,489</b>	<b>55,096,931</b>		



## Combined Operating, Capital and Grant Funds

The total combined revenue and funding for 2016 is \$65.53 million, total combined expenditures are \$63.48 million. The budgeted surplus for 2016 is \$46,989.

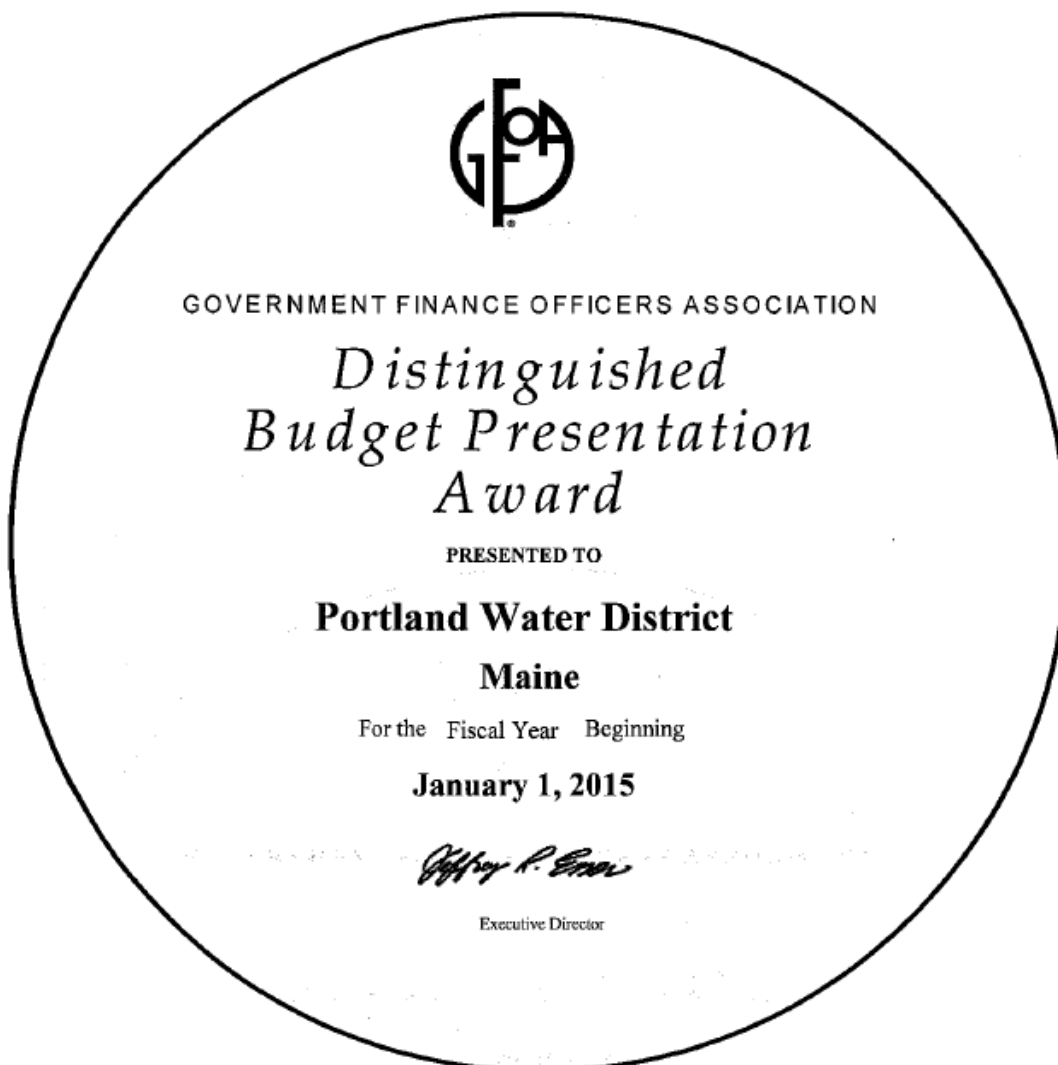
Operating funds details are included in Operating Revenues, Departmental Expense and Human Resources Sections. Capital funds details are included in included in Capital Finance and Capital Expenditures Sections. The Budget by Fund Section provides a summary of the Operating and Capital budget by individual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

	Operating	Capital	Total
Water Revenue	\$22,213,173	\$0	\$22,213,173
WW Assessments	17,493,300	-	17,493,300
Water Bond	-	8,000,000	8,000,000
Water R&R	-	3,625,000	3,625,000
WW Bond (Future)	-	-	-
WW Bond	-	1,350,000	1,350,000
WW R&R	-	1,470,000	1,470,000
Deferred Operating Expense	-	150,000	150,000
Contracted Billing Income	218,220	-	218,220
Interest Income	108,257	-	108,257
<u>Other Income</u>	<u>515,970</u>	<u>-</u>	<u>515,970</u>
Total Revenue	40,548,920	14,595,000	55,143,920
Salaries & Wages	10,361,351	334,456	10,695,807
Employee Benefits	5,308,818	154,921	5,463,739
Biosolids Disposal	1,390,252	-	1,390,252
Chemicals	1,100,862	-	1,100,862
Contracted Services	4,171,063	13,757,064	17,928,127
Deferred Cost W/O	24,486	-	24,486
Heat/Fuel Oil	448,844	-	448,844
Insurance	200,164	-	200,164
Materials & Supplies	1,602,150	261,299	1,863,449
Other Expense	748,253	-	748,253
Purchased Power	1,786,094	-	1,786,094
Regulatory/Taxes	214,896	-	214,896
Tele/Other Utilities	350,638	-	350,638
Transportation	1,215,348	87,260	1,302,608
<u>Trans Offset</u>	<u>(816,925)</u>	<u>-</u>	<u>(816,925)</u>
Operating Expense	28,106,294	14,595,000	42,701,294
Debt Service	7,756,603	-	7,756,603
Renewal & Replacement - Direct	4,049,034	-	4,049,034
<u>Renewal &amp; Replace - Indirect</u>	<u>590,000</u>	<u>-</u>	<u>590,000</u>
Total Expense	40,501,931	14,595,000	55,096,931
Surplus (Deficit)	46,989	-	46,989

## 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, 2015. 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.



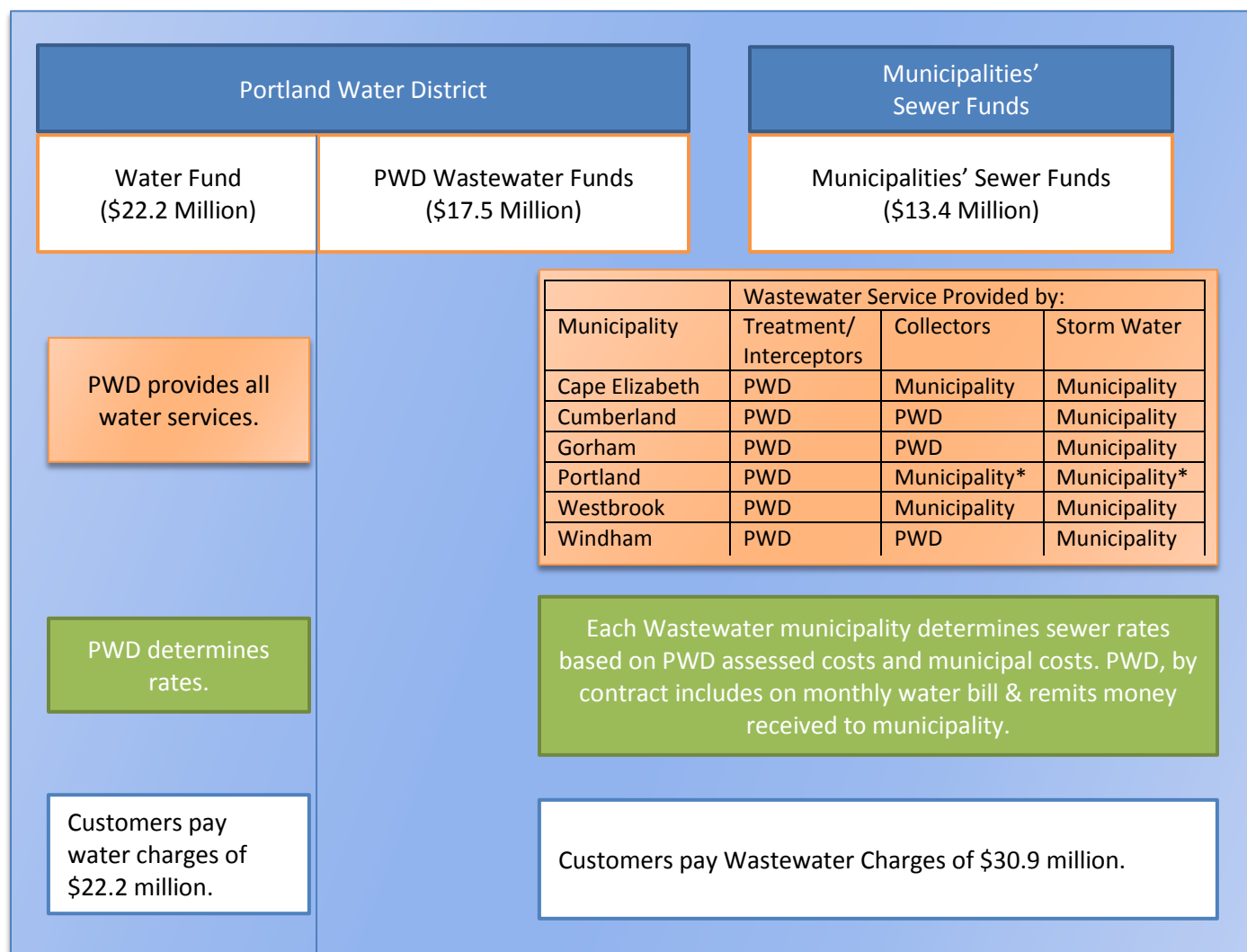
## Introduction

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.



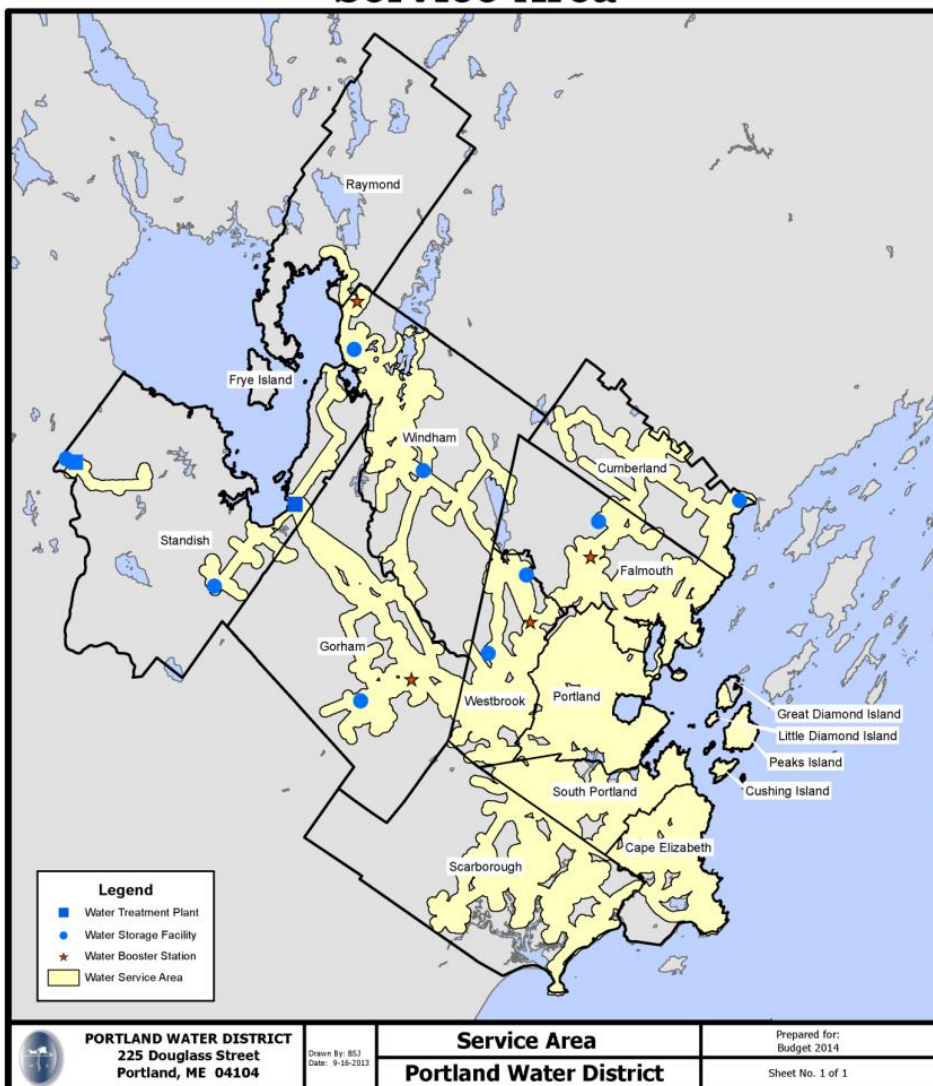
\*By contract, the District maintains collectors and storm drain system on Peaks Island, a small part of Portland

## 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.

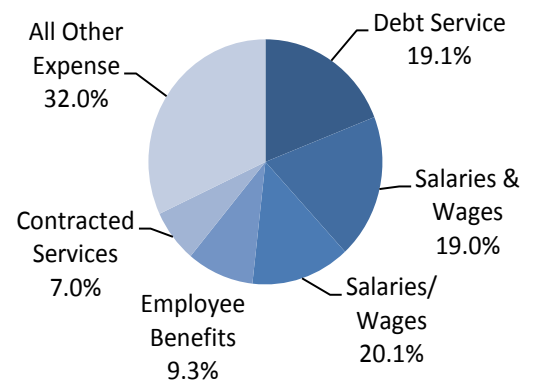
## 2016 Financial Summary

The proposed 2016 Operating expense and Capital budgets are \$22,383,758 and \$11,613,000, respectively.

Operating Expense was \$998,106, or 4.7%, higher than the previous year. Departmental Expense was up 1.0% (\$153,036) and Renewal & Replacement (direct & indirect) was up \$167,424. Debt Service increased \$677,646 (18.9%) due to debt newer issues.

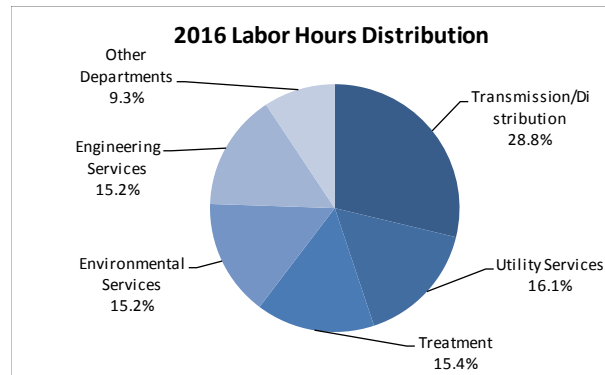
The Capital budget includes \$7 million for distribution main renewals. Additionally, \$4.6 million in capital work involving various other assets will be funded from the renewal and replacement fund.

### 2016 Operating Expense



## 2016 Operating Expense Highlights

**Salaries/Wages** – Slightly lower labor hours, due to a shift to construction (capital) inspection, combined with an average 2.0% wage rate increase resulted in the overall labor increase was 1.7% or \$69,361.



**Employee Benefits** – Benefits, which are charged as a percentage of regular wages, increased 3.6%. The benefit rate increased 1.9% due to increases in pension costs.

**Chemicals** – Costs are budgeted to decrease 2.0% (\$8,005). Chemical usage is based on historical usage and pricing based on current prices and predicted market trends. In the 2016 Budget, cost increases for liquid oxygen and zinc orthophosphate are offset by reductions in caustic soda and sodium hypochlorite.

**Heat/Fuel Oil** – This expense decreased 8.9% (\$14,205) due to a drop in the per gallon cost of heating oil.

**Other Expense** – Other Expense decreased \$65,385 (33.3%). The change is mostly due to an increase in main renewal work and the shift of efforts by staff to that capital work.

**Purchased Power** – The budget for supply for the water treatment plant decreased almost \$50,000 due to a decrease in rates. This offset increases in rates for delivery as well as supply (energy) costs for other facilities. Overall the budget was down \$20,612 or 4.9%.

**Tele/Other Utilities** – This expense is up \$9,083 (13.4%) due to the outsourcing of holding tank pumping at the water treatment facility in 2015. When preparing the 2015 budget in 2014, the outsourcing cost was estimated. This year's budget is based on a year of actual costs.

**Transportation** – The budget is down 1.5% (\$12,519) due to drop in projected fuel prices.

**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. The combined Support Services costs increased 2.8% or \$115,885.

**Debt Service** - The annual principal and interest payments on bonds issued to finance capital projects. This expense will increase 18.9% (\$677,646) in 2016 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 \$167,424 to support continued capital work including the renewal of older water mains.

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Water Sales	\$20,738,959	\$10,238,963	\$21,690,890	\$22,213,173	\$522,283	2.4%
Interest Income	39,869	31,350	34,391	56,031	21,640	62.9%
<u>Other Income</u>	<u>280,767</u>	<u>161,936</u>	<u>265,370</u>	<u>265,370</u>	<u>0</u>	<u>0.0%</u>
Total Revenue	21,059,595	10,432,249	21,990,651	22,534,574	543,923	2.5%
Salaries & Wages	4,062,632	2,026,517	4,193,292	4,262,653	69,361	1.7%
Employee Benefits	1,842,173	978,254	2,002,068	2,073,725	71,657	3.6%
Chemicals	382,584	166,022	402,975	394,970	-8,005	-2.0%
Contracted Services	1,297,566	754,100	1,559,772	1,564,472	4,700	0.3%
Deferred Cost W/O	1,200	400	800	0	-800	-100.0%
Facilities	92,047	52,875	112,850	114,107	1,257	1.1%
Heat/Fuel Oil	151,400	95,630	159,341	145,136	-14,205	-8.9%
Insurance	28,073	17,849	36,667	29,696	-6,971	-19.0%
Materials & Supplies	640,136	331,440	567,604	588,884	21,280	3.7%
Other Expense	173,498	89,072	196,610	131,225	-65,385	-33.3%
Purchased Power	377,326	255,878	422,798	402,186	-20,612	-4.9%
Regulatory/Taxes	214,999	180,085	226,586	214,896	-11,690	-5.2%
Tele/Other Utilities	60,439	32,096	67,822	76,905	9,083	13.4%
Transportation	733,916	407,985	826,432	813,913	-12,519	-1.5%
SS - Administration	2,921,511	1,521,547	3,185,851	3,276,686	90,835	2.9%
SS - Engineering Services	726,511	340,164	739,689	764,954	25,265	3.4%
SS - Environmental Services	81,791	45,700	109,197	71,813	-37,384	-34.2%
<u>SS - Water Services</u>	<u>86,268</u>	<u>49,095</u>	<u>92,586</u>	<u>129,755</u>	<u>37,169</u>	<u>40.1%</u>
Departmental Expense	13,874,070	7,344,709	14,902,940	15,055,976	153,036	1.0%
Debt Service	3,708,954	1,828,380	3,586,833	4,264,479	677,646	18.9%
Renewal & Replace - Indirect	296,044	147,939	295,879	363,303	67,424	22.8%
<u>Renewal &amp; Replacement - Direct</u>	<u>2,400,000</u>	<u>1,300,000</u>	<u>2,600,000</u>	<u>2,700,000</u>	<u>100,000</u>	<u>3.8%</u>
Operating Expense	20,279,068	10,621,028	21,385,652	22,383,758	998,106	4.7%
Current Surplus (Deficit)	780,527	-188,779	604,999	150,816		
Transfer to Capital Reserve	-119,679	-33,416	-66,831	-16,208		
Transfer to Land Reserve	-364,000	0	0	0		
Land Cash Reserve Expense	134,240	0	0	0		
<u>Prior Year Surplus</u>	<u>3,500,786</u>	<u>3,931,874</u>	<u>4,097,689</u>	<u>4,684,543</u>		
Accumulated Surplus	3,931,874	3,709,680	4,635,857	4,819,151		



## Operation Summary

The current treatment processes at the Sebago Lake Water Treatment Facility (SLWTF) include ozone, ultra-violet energy (U V) 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 2016, 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.

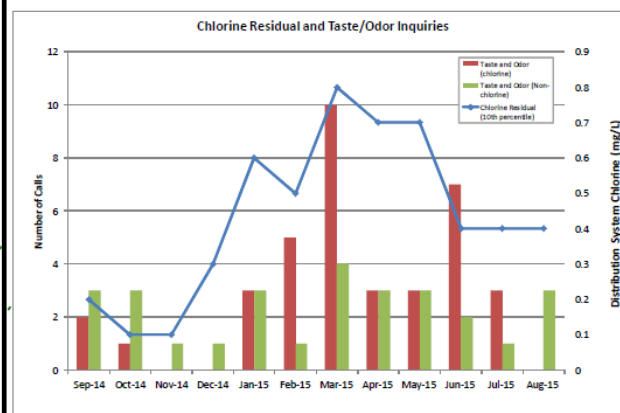
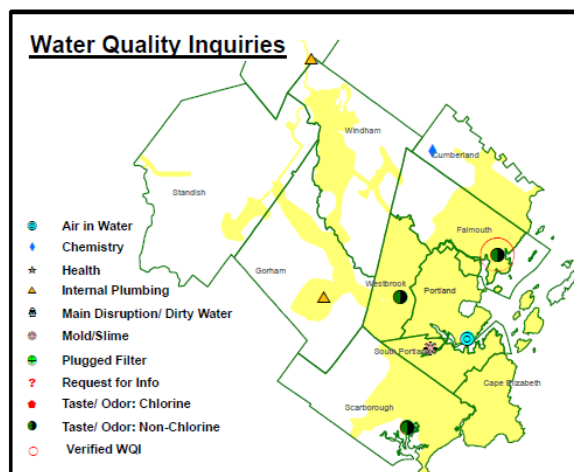
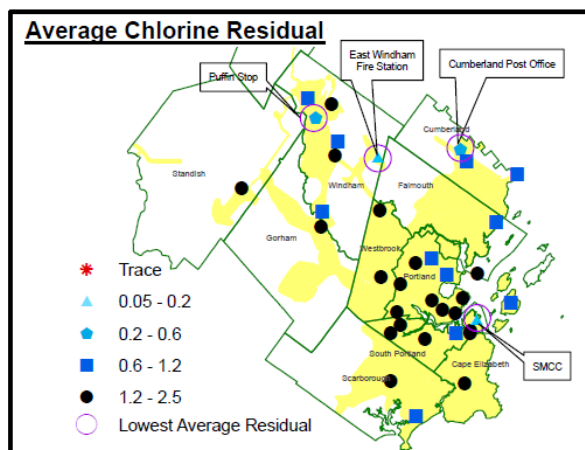
### August 2015 Distribution System Water Quality Summary

Page 1 of 1

<b>August Greater Portland:</b>			
0 of 166 coliform samples were positive (0.00%, Limit = 5%)			
<b>2015 Totals:</b>			
0 of 1203 coliform samples were positive (0.00%)			
Distribution System Water Quality Data			
Parameter	August	Year to Date	Goal
Cl <sub>2</sub> 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 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. The program's resources had been stretched thin over the past few years, with the amount of the system flushed falling to 9% during 2009. A renewed emphasis was placed on the program and during 2012 and our annual objective of flushing 33% of the system was met. The goal is to flush the entire distribution system in a 3-year cycle.

	2013 Actual	2014 Actual	2015 Projected	2016 Goal
% of Distribution System Flushed	33%	37%	33%	33%

The hydrant inspection program was revised over the past 3 years and the new procedures were implemented during the winter of 2012. One expanded area of this program is to exercise and confirm that each hydrant is fully functional. The long-term objective is to test each hydrant annually. Many hydrants had not been tested against this higher standard, and this created more maintenance work during the first few years of the revised program.

	2013 Actual	2014 Actual	2015 Projected	2016 Goal
Annual Hydrant Inspections	1992 (40%)	4963 (100%)	4963 (100%)	5,003 (100%)

The District continues to be innovative in its use of technology. One significant project under way is the GPS locating, confirming addresses, and updating the utility account information of all water service lines. This multi-year project will improve the efficiency of employees by clarifying 100 year old records and thus reduce time spent determining the exact location of buried assets. The Towns of Gorham and Falmouth are complete. Staff is working in Windham in 2015, and will move into another community in 2016. Depending on the size of the community selected, it may take more than a year to complete.



## 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. Water bonds are usually issued through the Maine Municipal Bond Bank though the District did issue a \$5.8 million bond in 2015 directly to the bond market. The 2016 planned projects are listed below. A detailed description of the projects is listed in the capital improvement plan section of the budget book. In 2016, the district plans to issue \$8 million in bonds and fund renewal and replacement at \$3.6 million to fund the remaining capital projects.

	2014 Actual	2015 Projected	2016 Budget
<b>Beginning of Year Fund Balance</b>	\$4,694,250	\$4,089,035	\$4,907,135
<b>Funding Sources:</b>			
Bond Proceeds - Main Renewal	4,541,000	6,061,000	6,000,000
Bond Proceeds - 407 Zone	-	-	2,000,000
Bond Proceeds - Ozone Plant	-	500,000	-
Renewal & Replacement Contribution	3,270,000	3,470,000	3,670,000
	12,505,250	14,120,035	16,577,135
<b>Expenditures:</b>			
Scada & Technology	42,892	265,000	298,000
Vehicle/Equipment Replacement	303,195	275,000	400,000
Water Operations - Mains/Valves	129,153	220,000	250,000
Water Operations - Services/Meters	512,910	445,000	650,000
Water Operations - Hydrants	218,691	200,000	200,000
Main Renewal Projects	7,138,662	6,950,000	7,450,000
Ozone Plant/UV Project	-	250,000	-
407 Zone Work	-	-	2,000,000
Water Facilities	69,449	545,000	340,000
Water Supply Security	1,263	62,900	25,000
	8,416,215	9,212,900	11,613,000
<b>End of Year Fund Balance</b>	4,089,035	4,907,135	4,964,135

## 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.

### Summary

#### Major Assumptions:

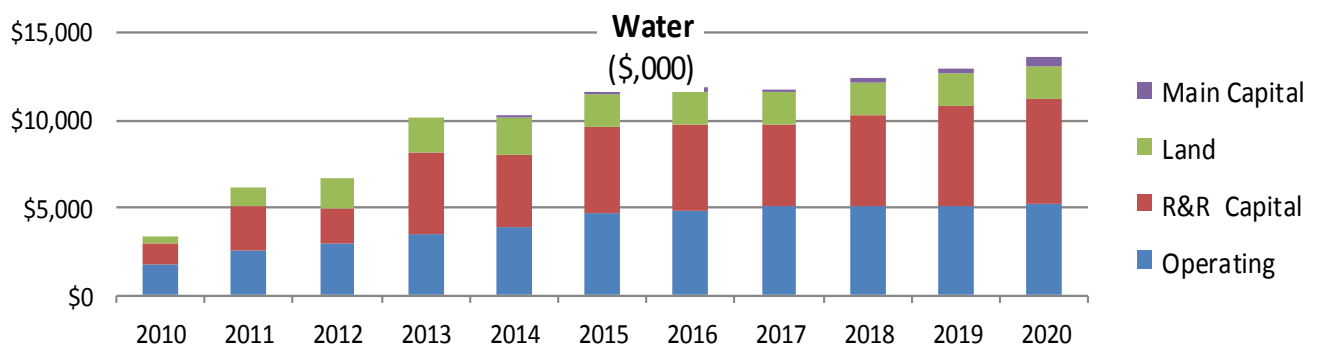
The assumptions incorporated in the projections are as follows:

- Salary increases of 2% each year. Maintain same number of employees.
- Benefit increases of 5% each year. Assumed pension contribution increased to \$1.2 million a year in 2016 and health insurance increases 7 % per year.
- Other expenses increase by 2.5% in 2016-2017 and 3.5% in subsequent years.
- New debt service and renewal/replacement fund expenditures consistent with the 2016 5-year capital plan (new debt assumed a 20 year life at 5%). The most significant projects are related to replacing aging water mains (\$30 million), improvements in the Gorham/Windham 407 pressure zone area (\$5.5 million) and computer system replacement (\$2.4 million).

### Summary

Water Revenue is projected to increase to \$27,000,251, a 22% increase, 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
Water	17%	17%	20%	22%	25%	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
Water	1.84	1.88	1.68	1.62	1.50	1.46	1.75

## Projections for Rate-Making Purposes (continued)

### Water Fund

#### Operating Fund:

	2016	2017	2018	2019	2020
<b>Revenue:</b>	<b>Budget</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>
Water Revenue	\$22,213,173	\$23,323,832	\$24,490,024	\$25,714,525	\$27,000,251
Other Income	265,370	265,370	265,370	265,370	265,370
Interest Income	56,031	56,031	56,031	56,031	56,031
<b>Total Revenue</b>	<b>22,534,574</b>	<b>23,645,233</b>	<b>24,811,425</b>	<b>26,035,926</b>	<b>27,321,652</b>
<b>Expense:</b>					
Salaries/Wages	4,262,653	4,347,906	4,434,864	4,523,561	4,614,032
Employee Benefits	2,073,725	2,177,411	2,286,282	2,400,596	2,520,626
Contracted Srvs	1,564,472	1,603,584	1,659,709	1,717,799	1,777,922
Transportation	813,913	834,261	863,460	893,681	924,960
Materials/Supplies	588,884	603,606	624,732	646,598	669,229
Purchased Power	402,186	412,241	426,669	441,602	457,058
Chemicals	394,970	404,844	419,014	433,679	448,858
Regulatory/Taxes	214,896	220,268	227,977	235,956	244,214
Heat/Fuel Oil	145,136	148,764	153,971	159,360	164,938
Facilities	114,107	116,960	121,054	125,291	129,676
Other Expense	131,225	134,506	139,214	144,086	149,129
Tele/Oth Utilities	76,905	78,828	81,587	84,443	87,399
Insurance	29,696	30,438	31,503	32,606	33,747
Deferred Cost W/O	0	0	0	0	0
<b>Support Services:</b>					
Administration	3,276,686	3,358,603	3,476,154	3,597,819	3,723,743
Engineering Services	764,954	784,078	811,521	839,924	869,321
Water Services	129,755	132,999	137,654	142,472	147,459
Environmental Services	71,813	73,608	76,184	78,850	81,610
<b>Capital:</b>					
Debt Service	4,264,479	4,864,071	5,710,445	6,353,312	6,993,494
Renewal & Replacement	3,063,303	3,063,303	3,063,303	3,063,303	3,063,303
<b>Total Expense</b>	<b>22,383,758</b>	<b>23,390,279</b>	<b>24,745,297</b>	<b>25,914,938</b>	<b>27,100,718</b>
Annual Surplus (Deficit)	150,816	254,954	66,128	120,988	220,934
Transfer to Cap Reserve	-16,208	-28,514	-36,801	-81,817	-165,405
Carryforward Surplus	4,684,543	4,819,151	5,045,591	5,074,918	5,114,089
<b>Period End Surplus</b>	<b>4,819,151</b>	<b>5,045,591</b>	<b>5,074,918</b>	<b>5,114,089</b>	<b>5,169,618</b>
<b>Target</b>	<b>5,595,940</b>	<b>5,847,570</b>	<b>6,186,324</b>	<b>6,478,735</b>	<b>6,775,180</b>
<b>Below Target</b>	<b>-\$776,789</b>	<b>-\$801,979</b>	<b>-\$1,111,406</b>	<b>-\$1,364,646</b>	<b>-\$1,605,562</b>

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

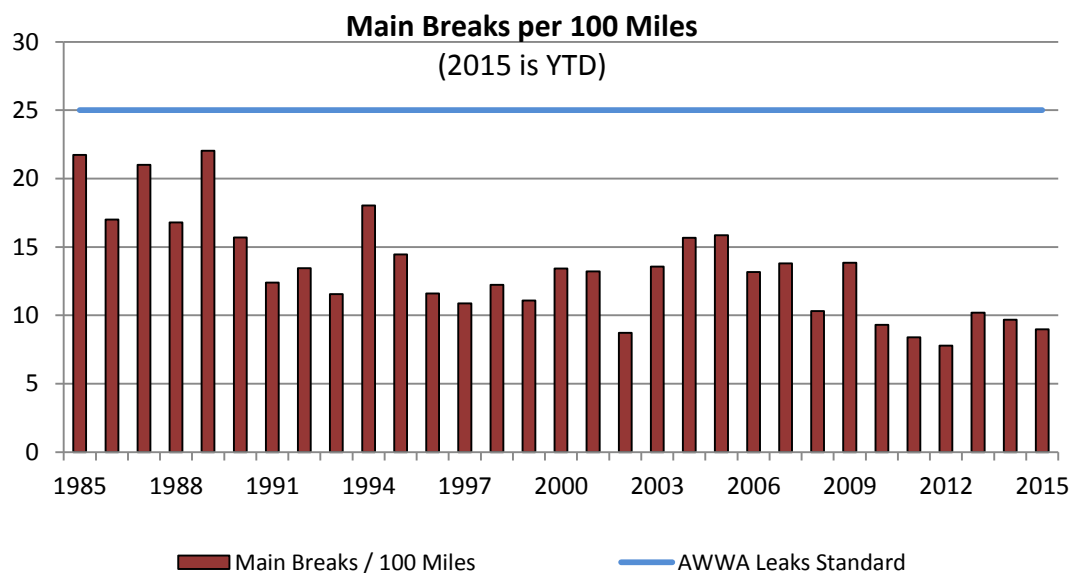
Year	Beg Balance	R&R Contribution	Bond	Land Reserve	Expenditures	End Balance
2016	4,907,135	3,670,000	8,000,000	0	11,613,000	4,964,135
2017	4,964,135	3,670,000	8,500,000	0	12,445,000	4,689,135
2018	4,689,135	3,670,000	8,300,000	0	11,475,000	5,184,135
2019	5,184,135	3,670,000	8,200,000	0	11,355,000	5,699,135
2020	5,699,135	3,670,000	6,000,000	0	9,320,000	6,049,135



## Water Main Renewals



Our commitment to maintain aging water infrastructure includes replacing water mains. The 2016 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.

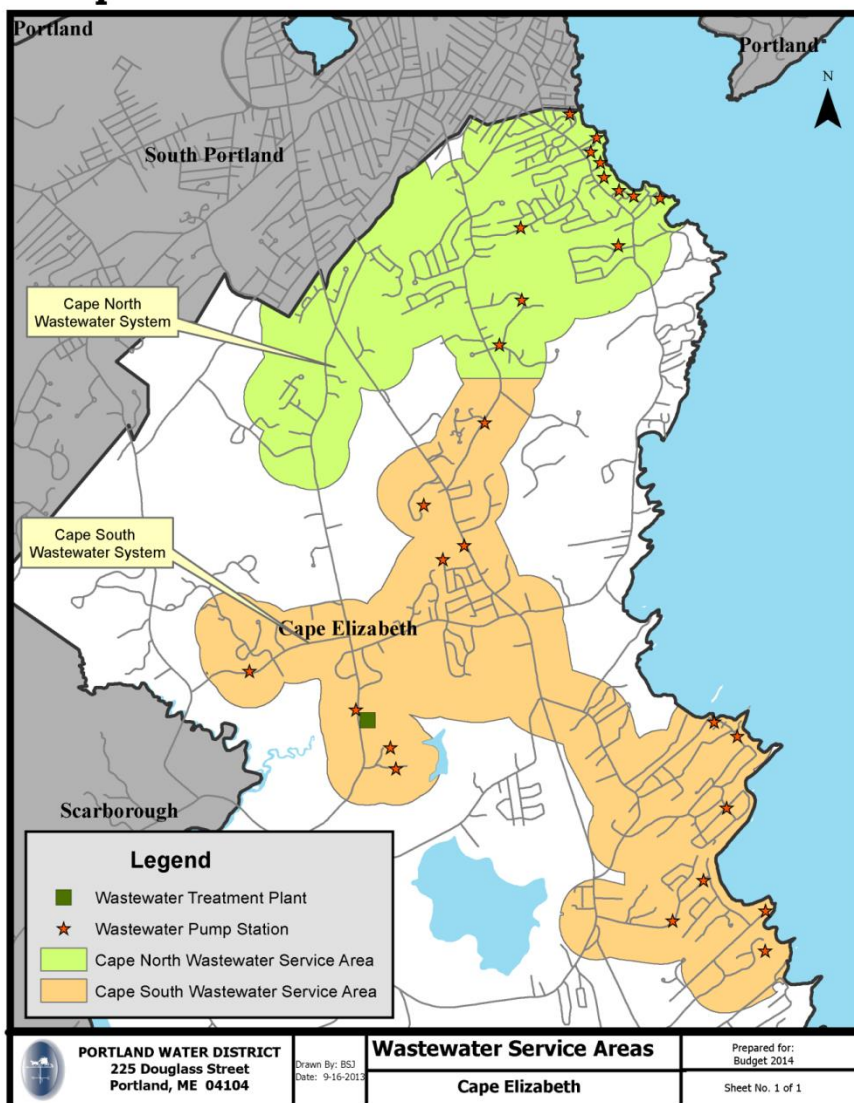


## Fund: Wastewater - Cape Elizabeth

### 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-collectors 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:

0.776 million gallons/day

##### Collection System:

23 Pump Stations with  
13.5 miles of pipe

##### Utility Billing Services:

Annual Billings of  
\$1,985,416 on 2,296  
Customers (avg.  
\$72.07/month)



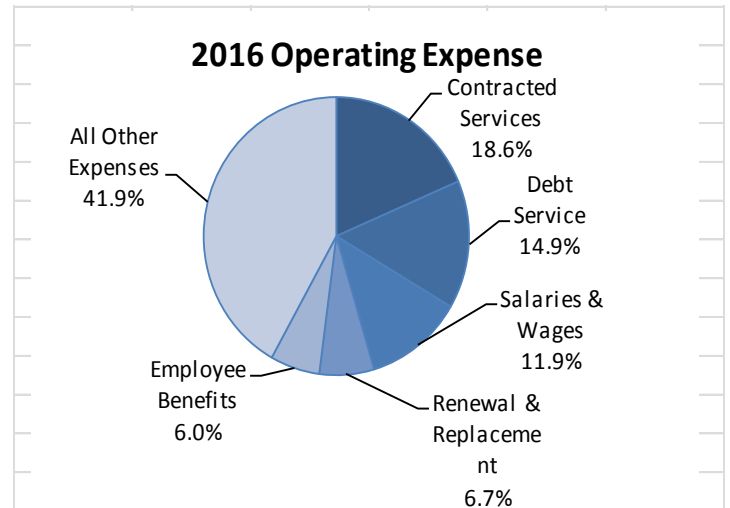
## Fund: Wastewater - Cape Elizabeth

### 2016 Financial Summary

The proposed assessment of \$1,443,408 is a 2.2% increase. The assessment is \$81,673 lower than the forecasted assessment provided the town last year.

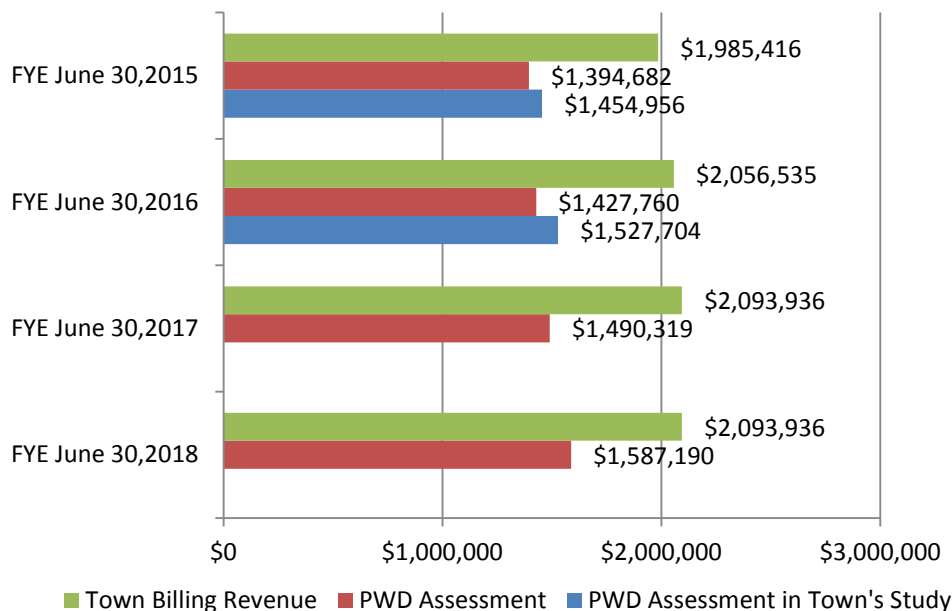
The proposed 2016 Operating Expense and Capital budgets are \$1,446,377 and \$535,000, respectively. The Operating Expense budget increased \$32,278 or 2.3%.

The 2016 Capital budget includes upgrades at the Broad Cove, Stonegate and Maiden Cove pump stations as well as an assessment of the condition of Clarifier and Aeration Systems and an ultraviolet treatment system evaluation. Work will be financed by a withdrawal of \$185,000 from the renewal and replacement fund and bonds of \$350,000.



### 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:

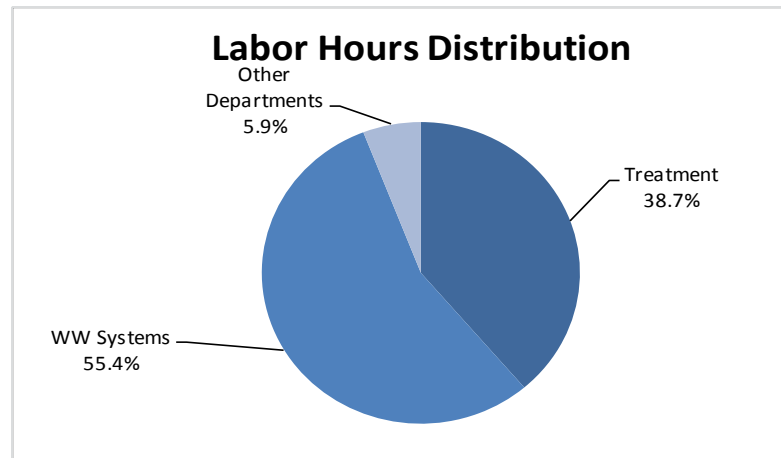
- Consumption is the 12 months ending June 30, 2015

- 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

## 2016 Operating Expense Highlights

**Salaries/Wages** – Labor hours budgeted decreased 8.4% (665 hours). This combined with District labor rates increasing an average of 2.0% resulted in a 7.8% (\$14,538) decrease in Salaries/Wages. There were labor reductions in both treatment and systems and was done so that the budget better reflected historical work hours and also the elimination of weekend visits for sampling accomplished through changes in the process.



**Employee Benefits** – Benefits, which are charged as a percentage of regular wages, decreased 4.4% (\$4,015) to a total of \$87,217. The benefit rate increased 1.9% due to increases in pension costs.

**Contracted Services** – The budget for this item increased \$13,154 (5.2%). The increase included \$6,500 in outside engineering services to provide software updates and other technical assistance with treatment plant operations plant, \$4,974 (a 3.1% increase) in treatment expense from the City of South Portland for estimated cost increases at their treatment plant and \$3,880 for additional laboratory testing required by regulators as the plant enters the last year of its current license.

**Transportation** – Transportation decreased \$3,155 (7.5%), this increase is in line with the decreased 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 information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund.

The combined Support Services costs increased 5.0% (\$18,562). Engineering Services increased in large part due to the creation of a new SCADA Specialist position, another position was eliminated in the process which was part of the reason for decline in Salaries/Wages as well as Employee Benefits. The increase in Environmental Services reflects a shift in the laboratory work load more towards the wastewater areas.

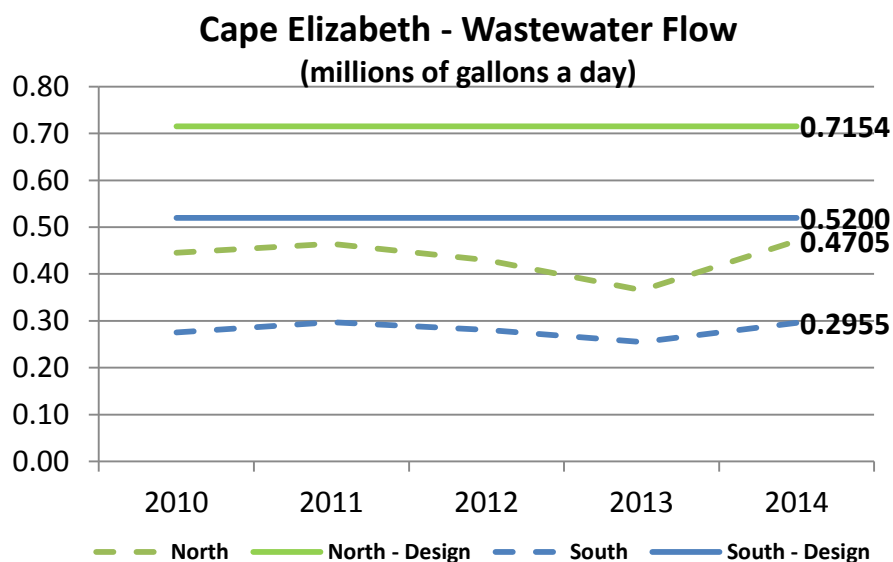
**Debt Service** - The annual principal and interest payments on bonds issued to finance capital projects. This cost increased \$24,198 (12.6%) from the prior year budget to \$215,731. The plan includes the impact of the new a bond issue of \$240,000 in May 2015 for work at the Garden Lane Pump Station as well as a 2016 \$172,500 bond issue for treatment plant and pump station projects.

**Renewal & Replacement** - Dollars put aside to fund capital projects. A contribution of \$96,383 will be made in 2016.

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$1,377,252	\$706,056	\$1,412,112	\$1,443,408	\$31,296	2.2%
Interest Income	<u>2,148</u>	<u>1,671</u>	<u>1,988</u>	<u>2,969</u>	<u>981</u>	<u>49.3%</u>
Total Revenue	1,379,400	707,727	1,414,100	1,446,377	32,277	2.3%
					0	n/a
Salaries & Wages	161,191	76,594	187,062	172,524	-14,538	-7.8%
Employee Benefits	74,438	39,002	91,232	87,217	-4,015	-4.4%
Biosolids Disposal	12,610	6,968	14,622	12,844	-1,778	-12.2%
Chemicals	10,639	6,616	12,767	11,686	-1,081	-8.5%
Contracted Services	203,707	102,844	255,256	268,410	13,154	5.2%
Deferred Cost W/O	81,556	0	0	0	0	n/a
Heat/Fuel Oil	16,326	11,502	16,457	14,548	-1,909	-11.6%
Insurance	5,258	2,623	5,631	5,245	-386	-6.9%
Materials & Supplies	32,354	11,599	34,225	35,500	1,275	3.7%
Other Expense	4,344	3,481	3,900	4,150	250	6.4%
Purchased Power	73,756	40,550	76,657	77,133	476	0.6%
Tele/Other Utilities	10,232	4,904	13,660	13,180	-480	-3.5%
Transportation	52,272	17,867	41,960	38,805	-3,155	-7.5%
SS - Administration	154,261	80,732	169,507	175,025	5,518	3.3%
SS - Engineering Services	46,538	22,929	67,570	76,146	8,576	12.7%
SS - Environmental Services	38,407	16,387	34,293	40,156	5,863	17.1%
SS - Wastewater Services	86,931	53,971	98,569	98,012	-557	-0.6%
SS - Water Services	<u>2,379</u>	<u>1,326</u>	<u>4,520</u>	<u>3,682</u>	<u>-838</u>	<u>-18.5%</u>
Departmental Expense	1,067,199	499,895	1,127,888	1,134,263	6,375	0.6%
Debt Service	187,961	92,362	191,534	215,731	24,197	12.6%
Renewal & Replace - Indirect	14,708	7,339	14,678	16,383	1,705	11.6%
Renewal & Replacement - Direct	<u>80,000</u>	<u>40,000</u>	<u>80,000</u>	<u>80,000</u>	<u>0</u>	<u>0.0%</u>
Operating Expense	1,349,868	639,596	1,414,100	1,446,377	32,277	2.3%
Surplus (Deficit)	29,532	68,131	0	0		
Transfer to R&R	0	0	0	0		
Prior Year Surplus	<u>257,730</u>	<u>287,263</u>	<u>322,118</u>	<u>367,754</u>		
Accumulated Surplus	287,262	355,394	322,118	367,754		

## Operation Summary

**Wastewater Treatment:** The Cape Elizabeth Wastewater System is divided into two sectors, North and South. Flow generated in the Northern sector is pumped to South Portland for treatment while flow generated in South Cape is treated at the Cape South WWTF. The Cape South facility is designed to treat 520,000 gallons per day. Cape North has 715,400 gallons per day capacity at South Portland's WWTF. The wet weather capacity was increased in 2011 to manage high flows during wet weather. This system performed as designed during several "record" rain event and has continued to perform very well.



**2015 YTD** - The South Cape WWTF has operated well through the first three quarters. The plant is averaging 93% removal of BOD and 97% of total suspended solids, which exceeds the minimum 85% removal required in the permit for both parameters. There were a number of effluent violations related to a leak in a pump station force main that has been corrected.

### Effluent Permit Requirements:

Parameter	Discussion												
Biological Oxygen Demand (BOD)	Measure of organic material and the strength of pollution. The treatment plant removed 91% 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.												
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p style="text-align: center;"><b>License Exceedences</b></p> <table border="1"> <thead> <tr> <th>Year</th> <th>License Exceedences</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> </tbody> </table> </div> <div style="flex: 1; padding-left: 20px;"> <p>The current Discharge Permit will expire on December 2, 2016. The renewal process will begin in the summer of 2016.</p> </div> </div>		Year	License Exceedences	2010	4	2011	3	2012	9	2013	0	2014	2
Year	License Exceedences												
2010	4												
2011	3												
2012	9												
2013	0												
2014	2												

## 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. Staff continues to respond and maintain service during various storm events and power failures, while installing emergency generators to assist in managing elevated flows during power losses. Additional work performed by the Systems crew is shown in the table below.

Parameter	2015 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

## 2015 Other Highlights

- Asset Management Software will continue 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.
- Through a cooperative effort with the Engineering Services department, all the equipment at the treatment plant was reviewed and the information in the asset management system was updated.
- Weekend sampling is now handled by staff from the East End WWTF, reducing routine overtime work.
- Replacement of the Garden Circle Pump Station was completed in 2015. This new submersible station will be more resilient to extreme coastal flooding events.

## 2016 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.
- The Wildwood, Stonegate, Broad Cove South and Maiden Cove pump stations will be upgraded in 2016. A significant portion of the Peabbles Cove Pump Station force main will be replaced. This force main has had a number of leaks in past years.
- A feasibility study related to the installation of a UV disinfection system at the treatment plant will be initiated.

## 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 2016. The planned projects are listed below:

**Pump Stations – 52:** Routine and equipment renewal and replacements (\$125,000) will be financed through the renewal and replacement fund.

**Pump Stations – 407:** Maiden Cove upgrade (\$200,000) and Peabbles Cove Main (\$150,000) totaling \$350,000. These projects will be financed by bonds in November 2016.

**Treatment Plant – 418:** The Clarifier and Aeration condition assessment and UV disinfection evaluation will be funded by renewal and replacement fund (\$30,000).

**Treatment Plant – 424:** Routine and equipment renewal and replacements (\$20,000) and LED lighting upgrade (\$10,000). These projects will be financed through the renewal and replacement fund.

Capital Fund:	2014 Actual	2015 Projected	2016 Budget
Beginning of Year Fund Balance	\$143,754	\$201,832	\$155,916
Source of Funds:			
Bond Proceeds - prior year(s)	-	240,000	-
Bond Proceeds - current year	-	-	522,500
Bond Proceeds - future years	-	-	-
Renewal and Replacement Contribution	80,000	80,000	80,000
Transfer from Operating Fund	-	-	-
Capital Funding	80,000	320,000	602,500
Capital Expenditures:			
Pump Station R&R – 52	7,105	77,972	125,000
SCADA System Controls (prorated) - 177	-	12,944	-
Cape CSO / Pump Station Capital Program - 407	718	250,000	445,000
Treatment Plant Capital Program – 418	-	-	107,500
Treatment Plant R&R – 424	14,099	25,000	30,000
Capital Expenditures	21,922	365,916	707,500
End of Year Fund Balance	201,832	155,916	50,916

## 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:

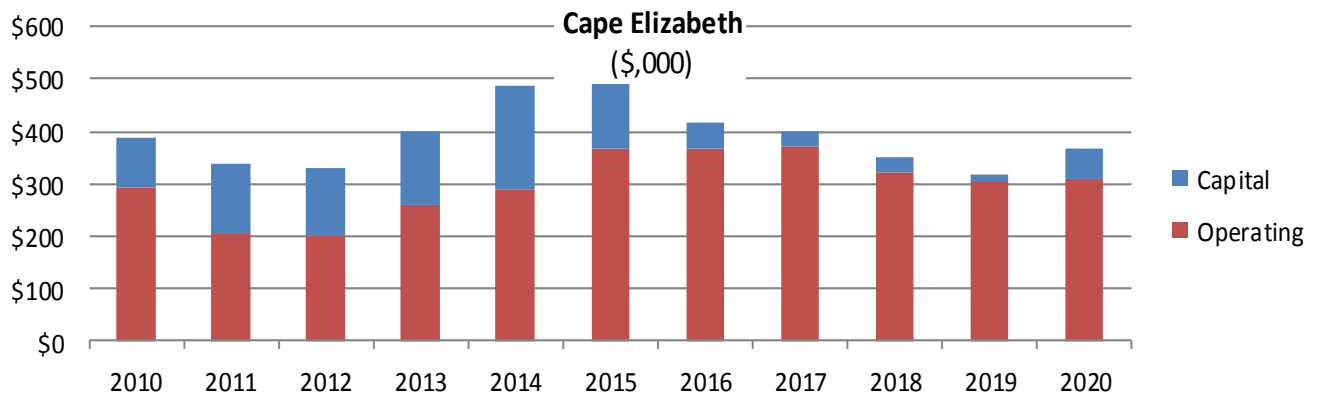
The assumptions incorporated in the projections are as follows:

- Salary increases of 2% each year. Maintain same number of employees.
- Benefit increases of 5% each year. Assumed pension contribution increased to \$1.2 million a year in 2016 and health insurance increases 7 % per year.
- Other expenses increase by 2.5% in 2016-2017 and 3.5% in subsequent years.
- New debt service and renewal/replacement fund expenditures consistent with the 2016 5-year capital plan (new debt assumed a 20 year life at 5%). Significant projects include \$1.24 million upgrade at the treatment facility in 2017-18 and upgrades to the Maiden Cove and Little John Field pump stations and the force main near Peabbles Cove pump station.

### Summary

Assessment is projected to increase to \$1,795,872 with the most significant cost change related to debt service issued to finance capital projects. Reserves balances are expected to 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
Cape Elizabeth	14%	14%	15%	17%	22%	23%	22%

#### Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020
Cape Elizabeth	1.66	1.49	1.45	1.37	1.13	1.19	1.25



## Projections for Rate-Making Purposes (continued)

### Operating Fund:

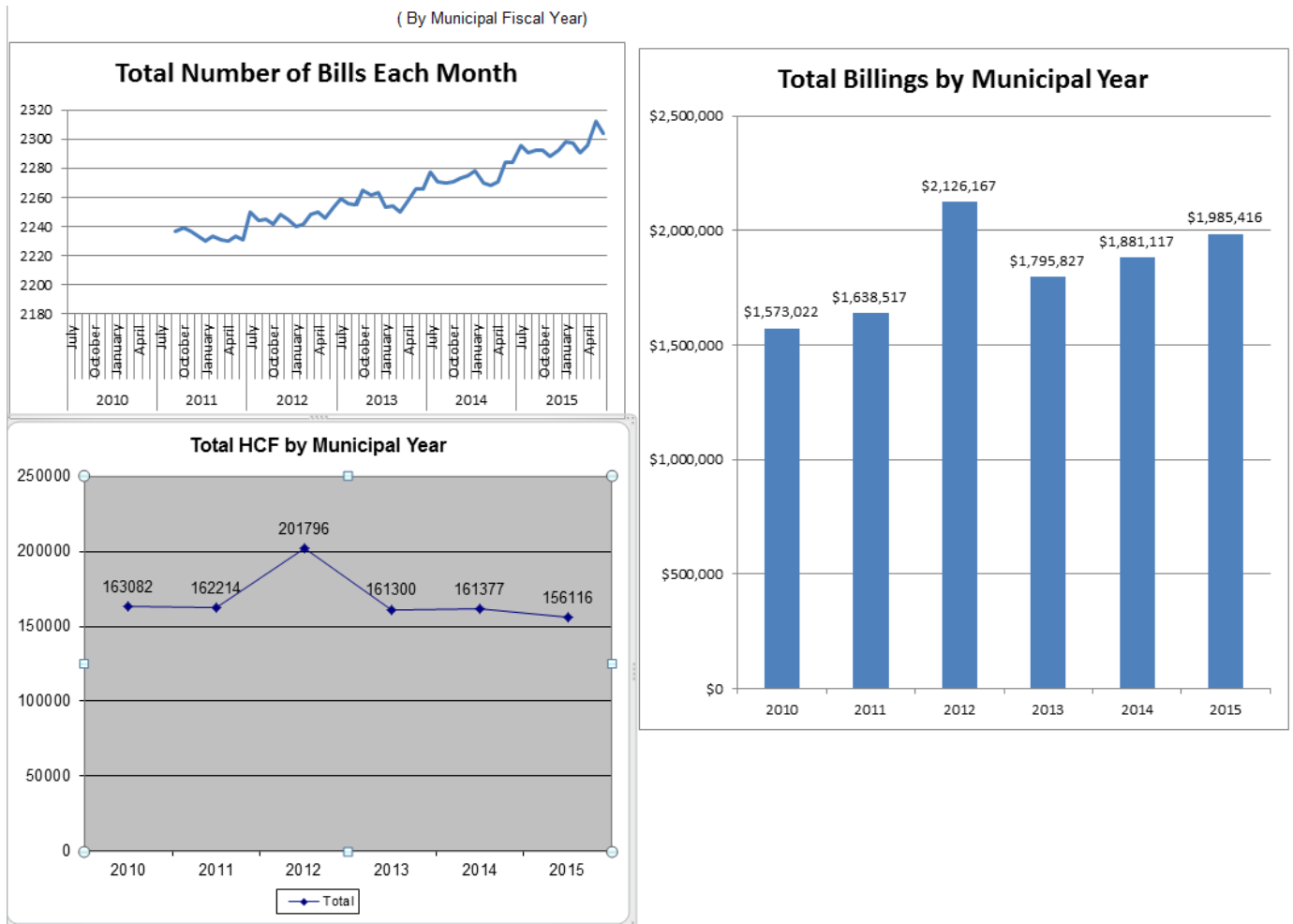
Wastewater Cape Elizabeth	2016	2017	2018	2019	2020
<b>Revenue:</b>	<b>Budget</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>
Assessment Income	\$1,443,408	\$1,537,230	\$1,637,150	\$1,743,565	\$1,795,872
Interest Income	2,969	2,995	2,995	2,995	2,995
FEMA Reimbursement	0	0	0	0	0
Total Revenue	1,446,377	1,540,225	1,640,145	1,746,560	1,798,867
<b>Expense:</b>					
Contracted Svcs	268,410	275,935	283,673	291,630	299,811
Salaries/Wages	172,524	175,974	179,493	183,083	186,745
Employee Benefits	87,217	91,578	96,157	100,965	106,013
Purchased Power	77,133	79,061	81,828	84,692	87,656
Transportation	38,805	39,775	41,167	42,608	44,099
Materials/Supplies	35,500	36,388	37,662	38,980	40,344
Heat/Fuel Oil	14,548	14,912	15,434	15,974	16,533
Biosolids Disposal	12,844	13,165	13,626	14,103	14,597
Tele/Oth Utilities	13,180	13,510	13,983	14,472	14,979
Chemicals	11,686	11,978	12,397	12,831	13,280
Other Expense	4,150	7,254	7,508	7,771	8,043
Insurance	5,245	5,376	5,564	5,759	5,961
Support Services:					
Administration	175,025	179,401	185,680	192,179	198,905
Wastewater Services	98,012	100,462	103,978	107,617	111,384
Engineering Services	76,146	89,050	92,167	95,393	98,732
Environmental Services	40,156	41,160	42,601	44,092	45,635
Water Services	3,682	3,774	3,906	4,043	4,185
Capital:					
Debt Service	215,731	263,611	374,741	410,430	402,669
Renewal & Replacement	96,383	96,383	96,383	96,383	96,383
Total Expense	1,446,377	1,538,747	1,687,948	1,763,005	1,795,954
Annual Surplus (Deficit)	0	1,478	-47,803	-16,445	2,913
Carryforward Surplus	367,754	367,754	369,232	321,429	304,985
Period Ending Surplus	367,754	369,232	321,429	304,985	307,898
Target	361,594	384,687	421,987	440,751	448,988
Above/(Below)	\$6,160	-\$15,455	-\$100,558	-\$135,766	-\$141,091

**Capital Expenditures:** (See details in the Capital Expenditure section) Target Balance: \$469,500

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2016	155,916	80,000	522,500	707,500	50,916
2017	50,916	80,000	1,395,000	1,495,000	30,916
2018	30,916	80,000	465,000	545,000	30,916
2019	30,916	80,000	0	100,000	10,916
2020	10,916	80,000	0	30,000	60,916

## Sewer Billing Statistics

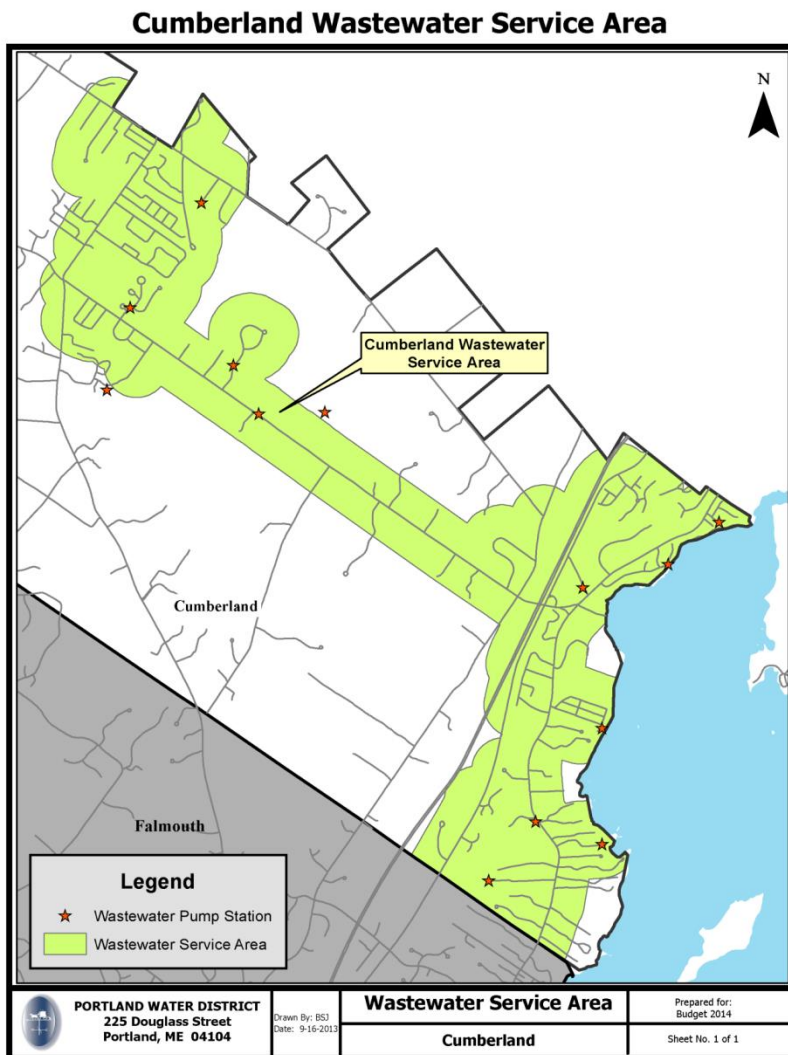
The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District's water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.



## **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:***

*12 Pump Stations with  
25.0 miles of pipe*

#### ***Utility Billing Services:***

*Annual Billings of  
\$900,992 on 1,084  
Customers (avg.  
\$69.24/month)*

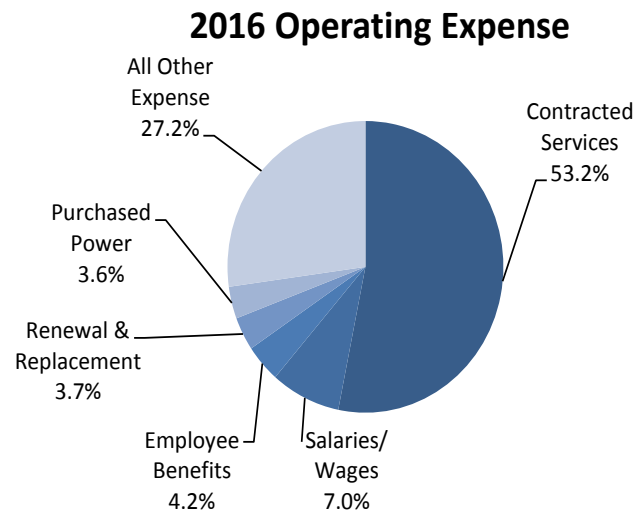
## Fund: Wastewater - Cumberland

### 2016 Financial Summary

The proposed assessment of \$750,072 is a 2.5% (\$18,288) increase from the previous year and is below the forecasted assessment provided the town last year.

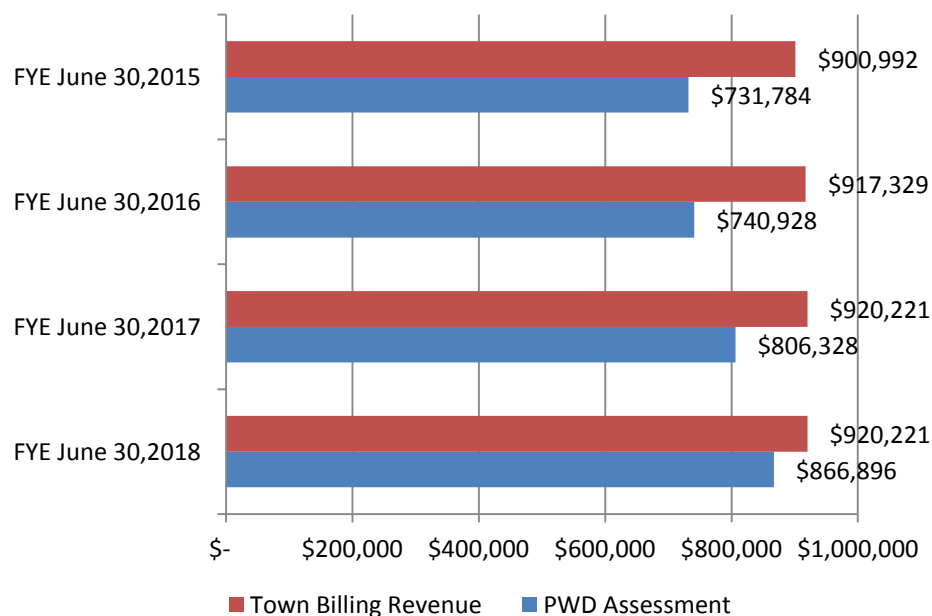
The proposed 2016 Operating Expense and Capital budgets are \$753,484 and \$115,000, respectively. The Operating Expense budget increased \$19,789 or 2.7%.

Capital work scheduled for 2016 includes a pump and telemetry upgrade at Longmeadow Pump Station and routine small equipment repairs. The work will be funded by a withdrawal of \$115,000 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, 2015

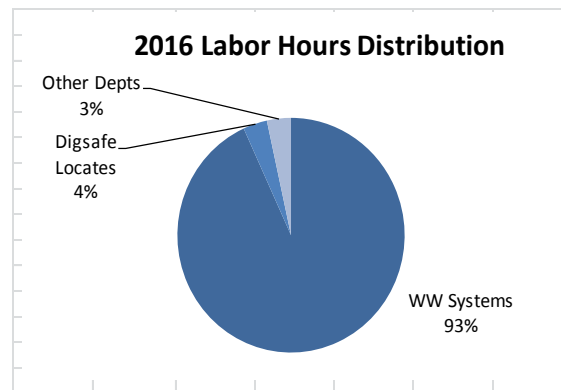
- Rates Assumed:

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

Jul 2013	\$34.25/\$4.96
Sep 2013	\$34.25/\$5.29
Sep 2015	\$35.58/\$5.29

## 2016 Operating Expense Highlights

**Salaries/Wages** – This expense is budgeted to increase 4.9% or \$2,853 to \$61,657. District labor rates increased an average of 2.0% and hours for this fund increased 4.1% (102 hours). The majority of the change comes from WW Systems in order to bring the budget more in line with historical averages. A total of 2,574 hours (1.24 full time equivalents) were budgeted for 2016 (see graph for breakdown).



**Employee Benefits** – Benefits, which are charged as a percentage of regular wages, increased 6.4% (\$1,897) to a total of \$31,657. The benefit rate increased 1.9% due to increases in pension costs.

**Contracted Services** – This category involves payments to the Town of Falmouth for wastewater treatment services, these services increased 2.4% (\$8,469) to a total of \$364,000. A small reduction in CCTV services resulted in the overall category increase of 2.1% or \$8,181.

**Insurance** – Insurance costs increased 27.6% (\$701) due to large increases in the premiums for flood insurance for wastewater pump stations.

**Purchased Power** – Modest rate increases of between 2-3% for supply (energy) and 3-5% for delivery resulted in a small overall increase in power costs. Overall the budget increased \$862 (3.3%).

**Transportation** – Transportation costs increased 3.3% (\$841), 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.

The combined Support Services costs increased 2.8% (\$4,100). Engineering Services increased in large part due to the creation of a new SCADA Specialist position. The increase in Wastewater Services was done to bring the budget in line with historical staffing efforts in this fund.

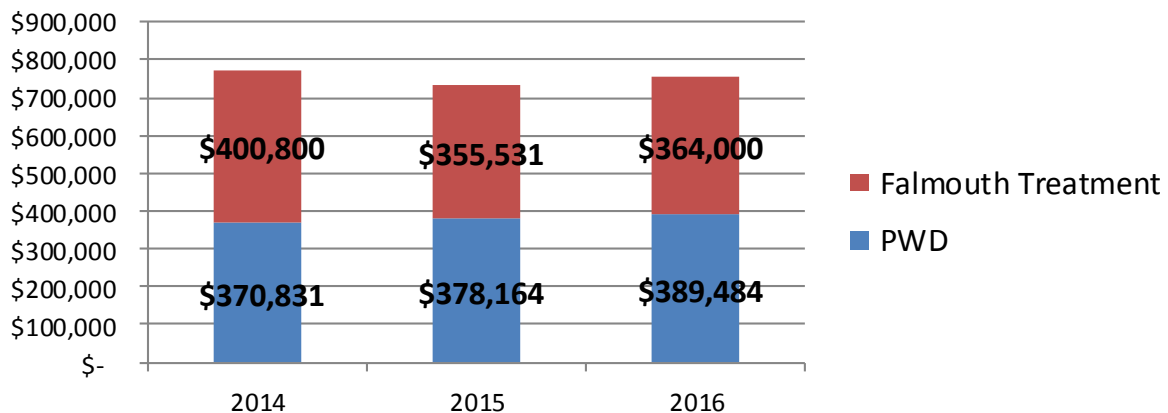
**Debt Service** - The annual principal and interest payments on bonds issued to finance capital projects. No new debt is expected to be issued in 2016 and the expense will decline 1.4% (\$214).

**Renewal and Replacement** – This is the annual contribution to a fund to finance smaller capital projects. A contribution of \$27,929 will be made in 2016.

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$731,784	\$365,892	\$731,784	\$750,072	\$18,288	2.5%
Interest Income	<u>2,194</u>	<u>1,789</u>	<u>1,911</u>	<u>3,412</u>	<u>1,501</u>	<u>78.5%</u>
Total Revenue	733,978	367,681	733,695	753,484	19,789	2.7%
Salaries & Wages	69,643	30,315	58,804	61,657	2,853	4.9%
Employee Benefits	33,691	16,432	29,760	31,657	1,897	6.4%
Contracted Services	393,788	183,109	392,371	400,552	8,181	2.1%
Heat/Fuel Oil	33	0	170	140	-30	-17.6%
Insurance	2,492	2,714	2,543	3,244	701	27.6%
Materials & Supplies	11,822	4,228	7,801	7,850	49	0.6%
Other Expense	50	0	0	0	0	n/a
Purchased Power	24,738	14,513	25,957	26,819	862	3.3%
Tele/Other Utilities	623	182	425	425	0	0.0%
Transportation	24,606	11,733	25,258	26,099	841	3.3%
SS - Administration	80,858	44,975	94,363	91,045	-3,318	-3.5%
SS - Engineering Services	22,497	10,339	30,903	34,849	3,946	12.8%
SS - Wastewater Services	27,232	11,303	21,133	24,641	3,508	16.6%
SS - Water Services	<u>1,179</u>	<u>659</u>	<u>1,861</u>	<u>1,825</u>	<u>-36</u>	<u>-1.9%</u>
Departmental Expense	693,252	330,502	691,349	710,803	19,454	2.8%
Debt Service	15,204	7,327	14,966	14,752	-214	-1.4%
Renewal & Replace - Indirect	7,427	3,876	7,752	8,301	549	7.1%
Renewal & Replacement - Direct	<u>19,628</u>	<u>9,814</u>	<u>19,628</u>	<u>19,628</u>	<u>0</u>	<u>0.0%</u>
Operating Expense	735,511	351,519	733,695	753,484	19,789	2.7%
Current Year Surplus (Deficit)	-1,533	16,162	0	0		
Transfer to R&R	0	0	0	0		
Prior Year Surplus	<u>308,553</u>	<u>307,020</u>	<u>261,481</u>	<u>322,128</u>		
Accumulated Surplus	307,020	323,182	261,481	322,128		

### Contracted Services – Treatment Services from Town of Falmouth

Almost half of the annual budget relates to the costs assessed by the town of Falmouth for the use of the treatment facility in Falmouth.

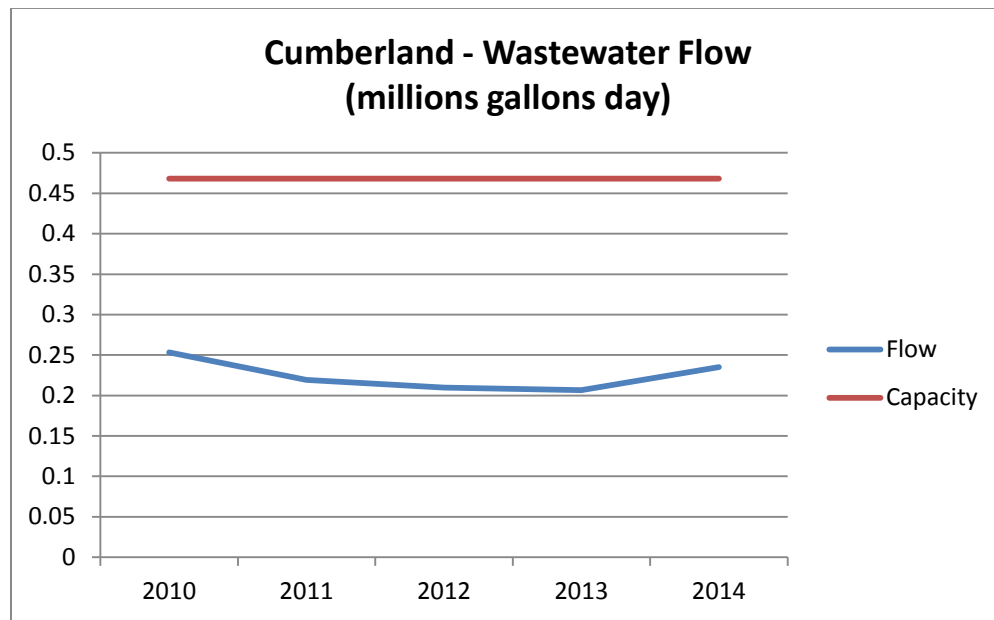


## Operation Summary

**Wastewater Treatment:** The wastewater generated in the Town of Cumberland is collected and pumped to the Falmouth Wastewater Treatment Facility (FWWTF). Currently, the Town owns 30% of design treatment plant capacity, or the ability to pump 468,000 gallons each day. The town is billed 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 Share
2014	234,932 gal/day	980,192 gal/day	24%

FWWTF Capacity	Cumberland Cap (30%)	% Capacity Used	Capacity Remaining
1,560,000 gal/day	468,000 gal/day	50.2 %	233,068 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)

### 2015 Other Highlights

- In preparation for pending upgrades to joint use pump stations in Falmouth, an inflow/infiltration investigation to determine peak flows from the area began in 2012. CCTV work will be completed along with the repair of several issues that were previously identified. Further work, including smoke testing, will continue through 2015. The Town and PWD completed negotiations with Falmouth regarding future capacity of the upgraded Mill Creek Pump Station and force main. Construction on the pump station is expected to begin in 2016 and continue through 2017.
- 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 will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis unless experience dictates otherwise.
- A flow meter was installed on Route 1. Along with the Route 88 meter, this meters all flows to the Falmouth system.

### 2016 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 I/I work, alongside the design of peak capacity in the station, will be used to manage wet weather flows from the Cumberland system.
- A generator will be installed at the Ledge Road Pump Station.
- The Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis unless experience dictates otherwise.

## 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 2016. 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:

**Cumberland Pump Stations – 41:** Evaluation of steel structures (\$20,000), Longmeadow PS pump replacement and telemetry upgrades (\$75,000) as well as routine renewal and replacements (\$20,000) for a total of \$115,000. These projects will be financed through the renewal and replacement fund.

Capital Fund:	2014 Actual	2015 Projected	2016 Budget
Beginning of Year Fund Balance	\$284,075	\$262,203	\$135,753
Source of Funds:			
Renewal and Replacement	19,628	19,628	19,628
Capital Funding	19,628	19,628	19,628
Capital Expenditures:			
Pump Station R&R – 41	41,500	145,000	115,000
SCADA Systems Controls (prorated) - 177	-	1,078	-
Capital Expenditures	41,500	146,078	115,000
End of Year Fund Balance	262,203	135,753	40,381

## 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:

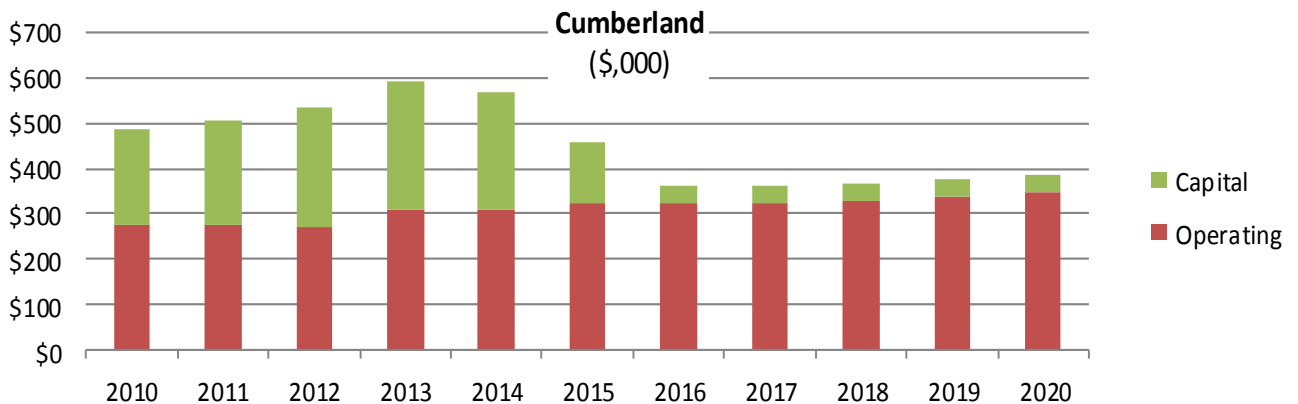
The assumptions incorporated in the projections are as follows:

- Salary increases of 2% each year. Maintain same number of employees.
- Benefit increases of 5% each year. Assumed pension contribution increased to \$1.2 million a year in 2016 and health insurance increases 7 % per year.
- Other expenses increase by 2.5% in 2016-2017 and 3.5% in subsequent years.
- No new debt is planned. The Longmeadow pump station upgrade in 2016 is planned to be paid from the Renewal and Replacement fund.

### Summary

Assessment is projected to increase to \$888,720 by 2020 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 30 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
Cumberland	2%	2%	2%	2%	2%	2%	2%

### Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020
Cumberland	2.68	2.81	2.89	2.83	3.20	3.56	3.85

## Projections for Rate-Making Purposes (continued)

### Operating Fund:

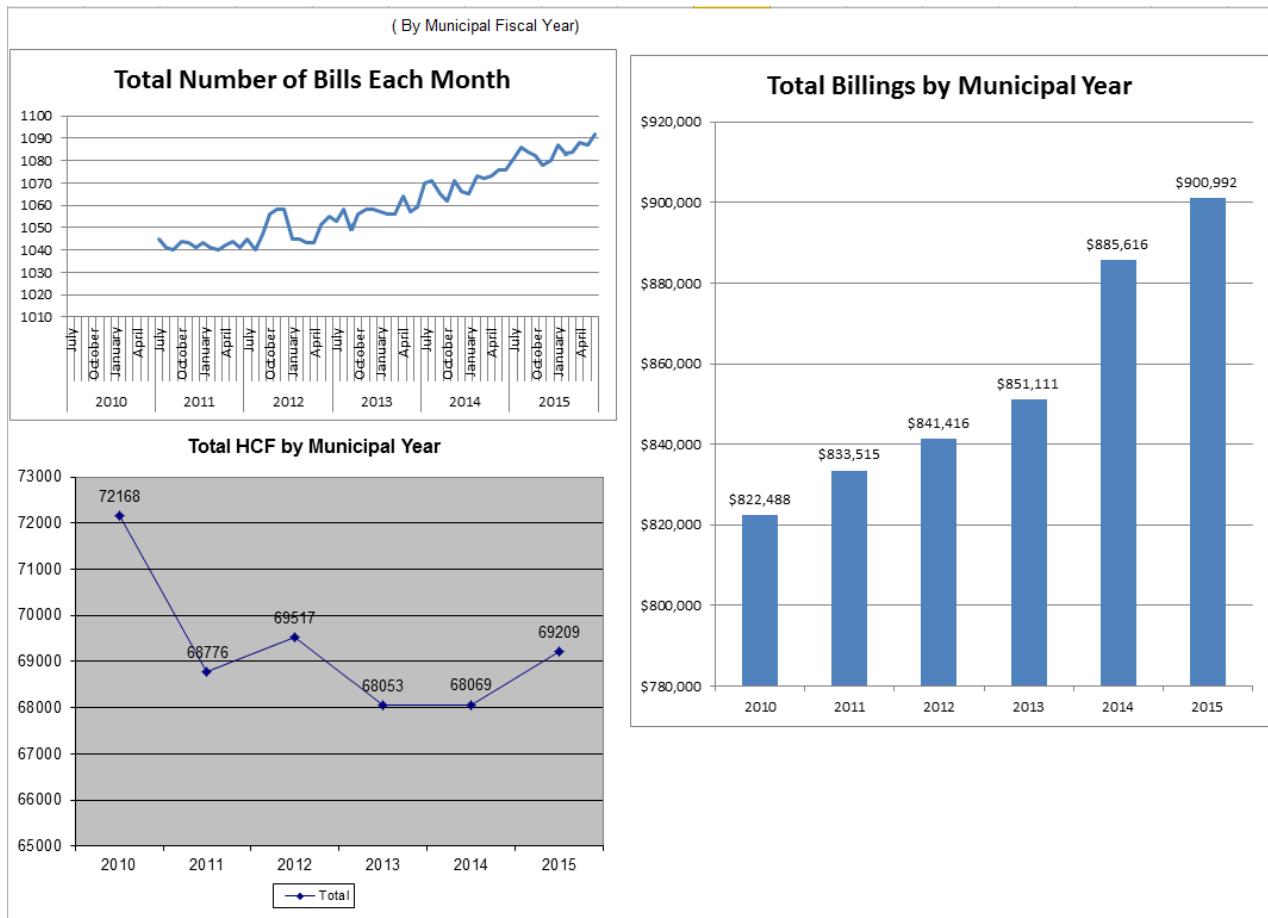
Wastewater Cumberland	2016	2017	2018	2019	2020
<b>Revenue:</b>	<b>Budget</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>
Assessment Income	\$750,072	\$862,583	\$871,209	\$879,921	\$888,720
Interest Income	3,412	3,412	3,412	3,412	3,412
FEMA Reimbursement	0	0	0	0	0
Total Revenue	753,484	865,995	874,621	883,333	892,132
<b>Expense:</b>					
Falmouth Treatment	364,000	462,000	460,000	458,000	457,000
Salaries/Wages	61,657	62,890	64,148	65,431	66,740
Employee Benefits	31,657	33,240	34,902	36,647	38,479
Contracted Srvs	36,552	37,466	38,403	39,363	40,347
Transportation	26,099	26,751	27,420	28,106	28,809
Purchased Power	26,819	27,489	28,176	28,880	29,602
Materials/Supplies	7,850	8,046	8,247	8,453	8,664
Insurance	3,244	3,325	3,408	3,493	3,580
Tele/Oth Utilities	425	436	447	458	469
Heat/Fuel Oil	140	144	148	152	156
Support Services:					
Administration	91,045	91,045	91,045	91,045	91,045
Engineering Services	34,849	40,649	40,649	40,649	40,649
Wastewater Services	24,641	28,641	28,641	28,641	28,641
Water Services	1,825	1,825	1,825	1,825	1,825
Capital:					
Debt Service	14,752	14,844	14,751	14,658	14,565
Renewal & Replacement	27,929	27,929	27,929	27,929	27,929
Total Expense	753,484	866,720	870,139	873,730	878,500
Annual Surplus (Deficit)	0	-725	4,482	9,603	13,632
Transfer to R&R					
Carryforward Surplus	322,128	322,128	321,403	325,885	335,488
Period Ending Surplus	322,128	321,403	325,885	335,488	349,120
Target	188,371	216,680	217,535	218,433	219,625
Above/(Below) Target	\$133,757	\$104,723	\$108,350	\$117,056	\$129,495

**Capital Expenditures:** (See details in the Capital Expenditure section) Target Balance: \$233,000

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2016	135,753	19,628	0	115,000	40,381
2017	40,381	19,628	0	20,000	40,009
2018	40,009	19,628	0	20,000	39,637
2019	39,637	19,628	0	20,000	39,265
2020	39,265	19,628	0	20,000	38,893

## 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.

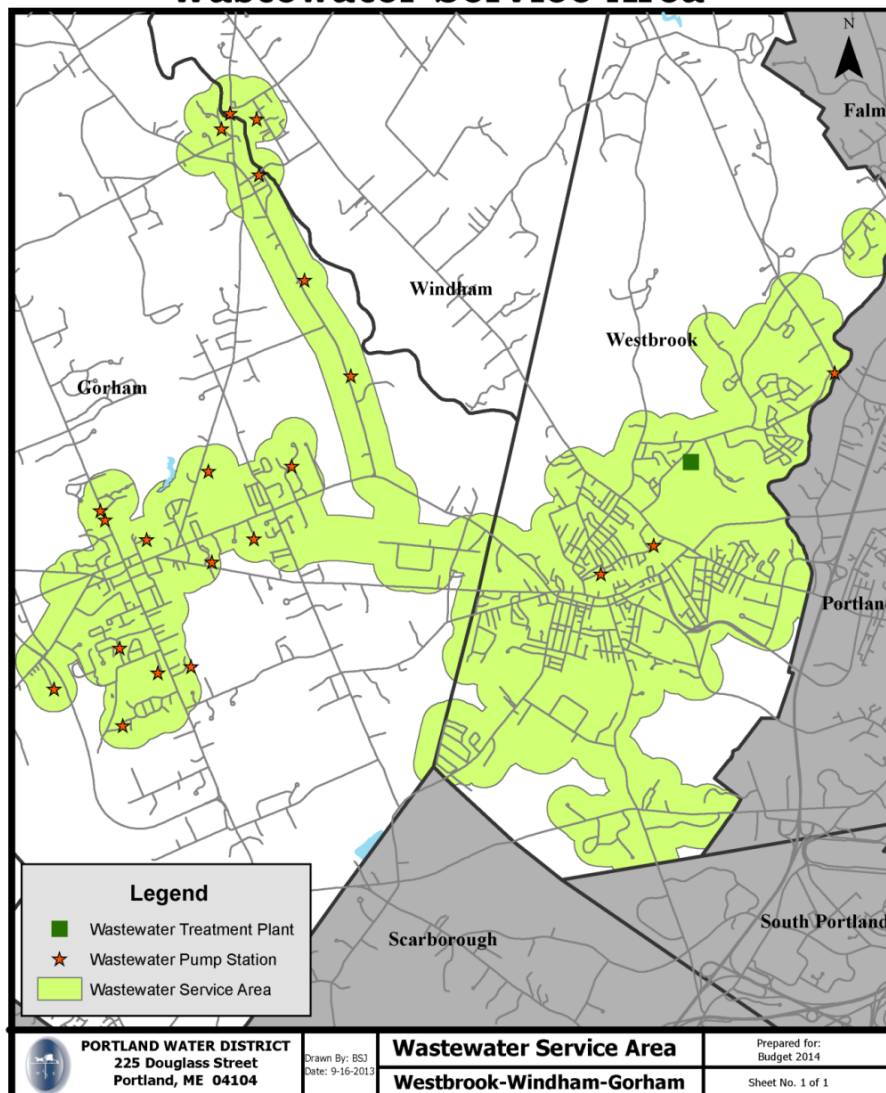


## **Fund: Wastewater - Gorham**

### **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.

### **Westbrook Windham Gorham Wastewater Service Area**



#### **Summary of Services Provided:**

##### **Treatment**

0.471 million  
gallons/day

##### **Collection System**

8 Gorham only & 3  
Joint use Pump  
Stations with 25.4  
miles of pipe

##### **Utility Billing**

Annual Billings of  
\$1,070,465 on 1,705  
Customers (avg.  
\$52.34/month)

## Fund: Wastewater - Gorham

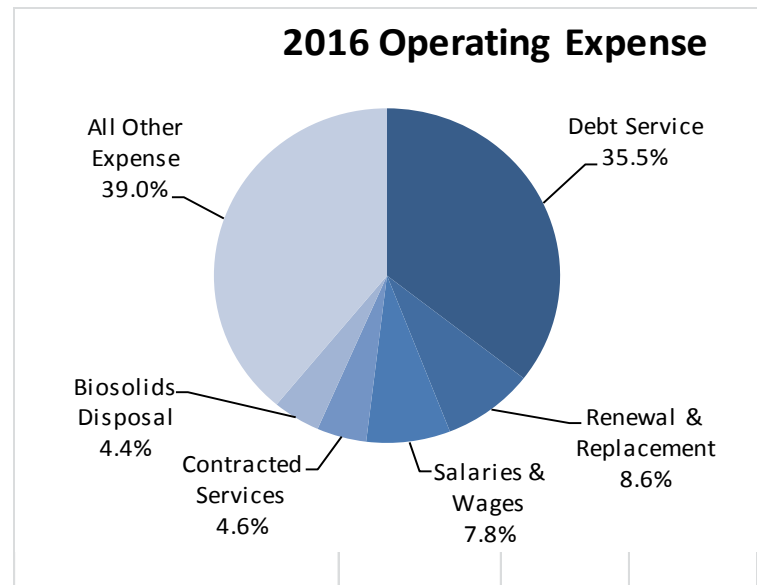
### 2016 Financial Summary

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 2016 Operating Expense and Capital budgets are \$1,130,943 and \$417,096, respectively.

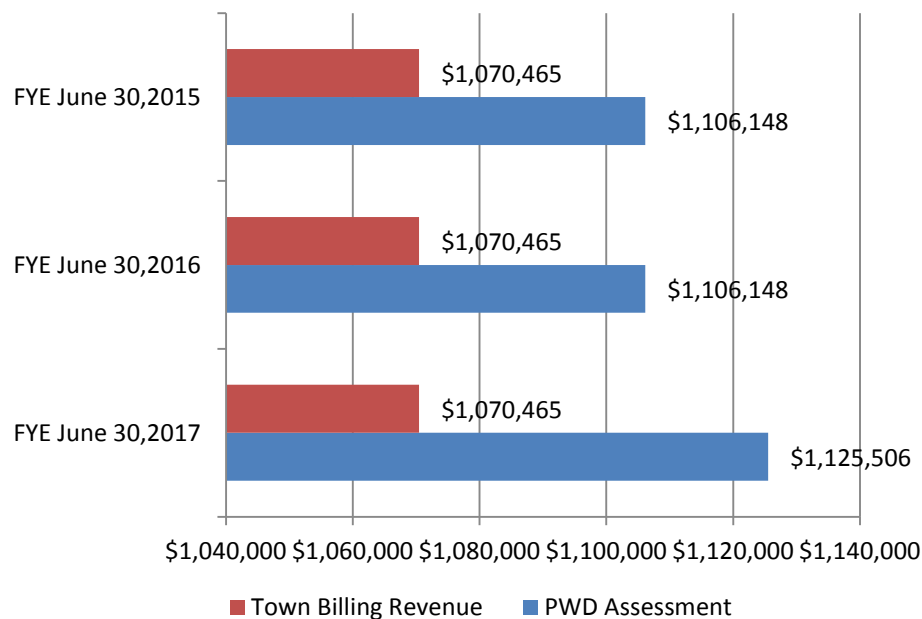
The Operating Expense budget increase is \$2,560 or 0.2%. Departmental Expense increased due to higher flows at the Westbrook Regional WWTF, this increase was mostly offset by reductions in Debt Service and Renewal & Replacement.

The Capital projects in 2016 include sludge dewatering upgrade at the regional wastewater treatment plant and Canterbury Pines PS. Also planned is manhole raising on Main Street.



### 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

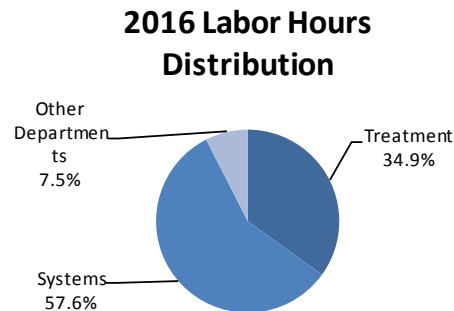
No change in rates since 11/1/2006.

No change in rates since 11/1/2006.



## 2016 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 \$3,388 (4.0%) to \$88,717. The District's wage rate increased an average of 2.0% and labor hours increased 1.3%. A total of 3,616 hours (1.74 full time equivalents) were budgeted for 2016 (see graph for distribution).



**Employee Benefits** – Benefit expense increased 5.4% or \$2,354. This cost is charged as a percentage of regular wages. The benefit rate increased 1.9% due to increases in pension costs.

**Biosolids Disposal** – The budget assumed the volume of wet tons disposed would increase by 3.1% offset by an estimated 2.1% decrease in the disposal rate. The net increase in the costs of disposal at the Westbrook Regional WWTF was 1.0%. However, due to an increase in flows, Gorham's share of treatment costs increased from 13.0% in 2015 to 15.0% in 2016. The result was a 16.5% (\$7,118) increase in expense.

**Materials & Supplies** – This item is up \$9,945 (74.4%) due to materials needed to do planned work at some of the area's pump stations.

**Purchased Power** – The budget for power is expected to increase by 14.6% or \$5,729 to \$45,099. The increased cost for power was largely the result of increased flow percentages for Joint Westbrook facilities (from 13.0% to 15.0%) and Joint Little Falls facilities (from 20.0% to 22.5%).

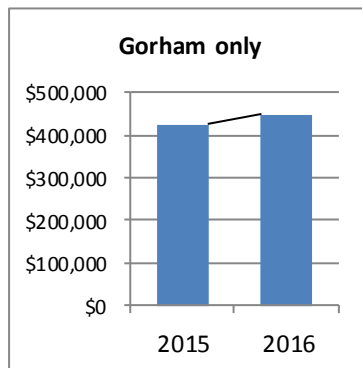
**Support Services** – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. The combined Support Services costs decreased 7.3% (\$18,747). Engineering Services increased in large part due to the creation of a new SCADA Specialist position. The increase in Wastewater Services was mostly due to the Gorham's flow percentage increase.

**Debt Service** - The annual principal and interest payments on bonds issued to finance capital projects. This item decreased 1.0% (\$4,024) as older bond issues were retired. Debt Service costs related to connecting the Little Falls area to the regional treatment facility is \$285,664. The balance relates to costs related to the regional treatment and pump stations facilities and meters.

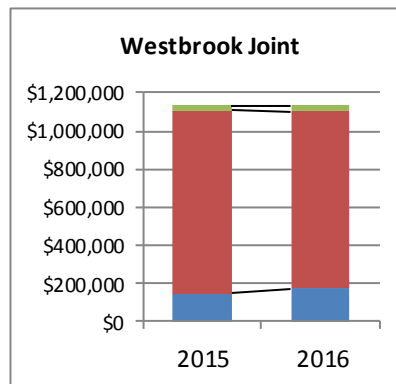
**Renewal & Replacement** - Dollars put aside to fund smaller capital projects. A contribution of \$96,855 will be made in 2016.

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$1,106,148	\$553,074	\$1,106,148	\$1,106,148	\$0	0.0%
Interest Income	3,278	3,122	3,425	5,995	2,570	75.0%
<u>Other Income</u>	<u>18,956</u>	<u>3,717</u>	<u>18,810</u>	<u>18,800</u>	<u>-10</u>	<u>-0.1%</u>
Total Revenue	1,128,382	559,913	1,128,383	1,130,943	2,560	0.2%
Salaries & Wages	86,138	34,587	85,329	88,717	3,388	4.0%
Employee Benefits	41,649	18,149	43,439	45,793	2,354	5.4%
Biosolids Disposal	46,045	21,641	43,130	50,248	7,118	16.5%
Chemicals	9,913	4,016	11,469	10,638	-831	-7.2%
Contracted Services	56,296	12,682	51,052	52,512	1,460	2.9%
Heat/Fuel Oil	6,136	3,690	6,098	6,405	307	5.0%
Insurance	1,520	757	1,626	1,621	-5	-0.3%
Materials & Supplies	25,401	7,171	13,369	23,314	9,945	74.4%
Other Expense	804	659	861	903	42	4.9%
Purchased Power	39,572	20,863	39,370	45,099	5,729	14.6%
Tele/Other Utilities	2,802	893	2,411	3,279	868	36.0%
Transportation	20,388	8,599	29,189	29,442	253	0.9%
SS - Administration	122,297	62,683	131,738	134,762	3,024	2.3%
SS - Engineering Services	43,615	21,522	65,689	71,651	5,962	9.1%
SS - Environmental Services	15,657	6,658	14,287	15,813	1,526	10.7%
SS - Wastewater Services	44,679	22,463	40,889	49,174	8,285	20.3%
<u>SS - Water Services</u>	<u>1,973</u>	<u>1,109</u>	<u>3,110</u>	<u>3,060</u>	<u>-50</u>	<u>-1.6%</u>
Departmental Expense	564,885	248,142	583,056	632,431	49,375	8.5%
Debt Service	410,859	196,308	405,681	401,657	-4,024	-1.0%
Renewal & Replace - Indirect	11,919	5,849	11,699	13,040	1,341	11.5%
<u>Renewal &amp; Replace - Direct</u>	<u>67,313</u>	<u>63,974</u>	<u>127,947</u>	<u>83,815</u>	<u>-44,132</u>	<u>-34.5%</u>
Operating Expense	1,054,976	514,273	1,128,383	1,130,943	2,560	0.2%
Current Year Surplus (Deficit)	73,406	45,640	0	0		
Transfer to R&R	-73,406	0	0	0		
<u>Prior Year Surplus</u>	<u>417,084</u>	<u>417,084</u>	<u>422,074</u>	<u>476,416</u>		
Accumulated Surplus	417,084	462,724	422,074	476,416		

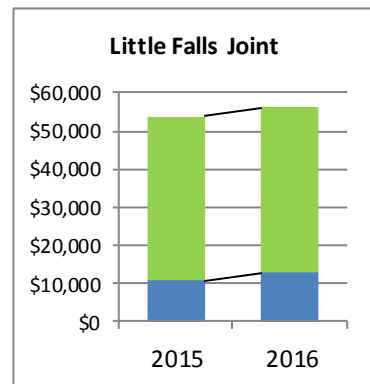
**Note:** In graphs below Gorham's costs are in blue.



**Gorham Only** – Up 24.8k due to higher support costs.



**Westbrook JT** – Flat, Gorham % up (13% to 15%).



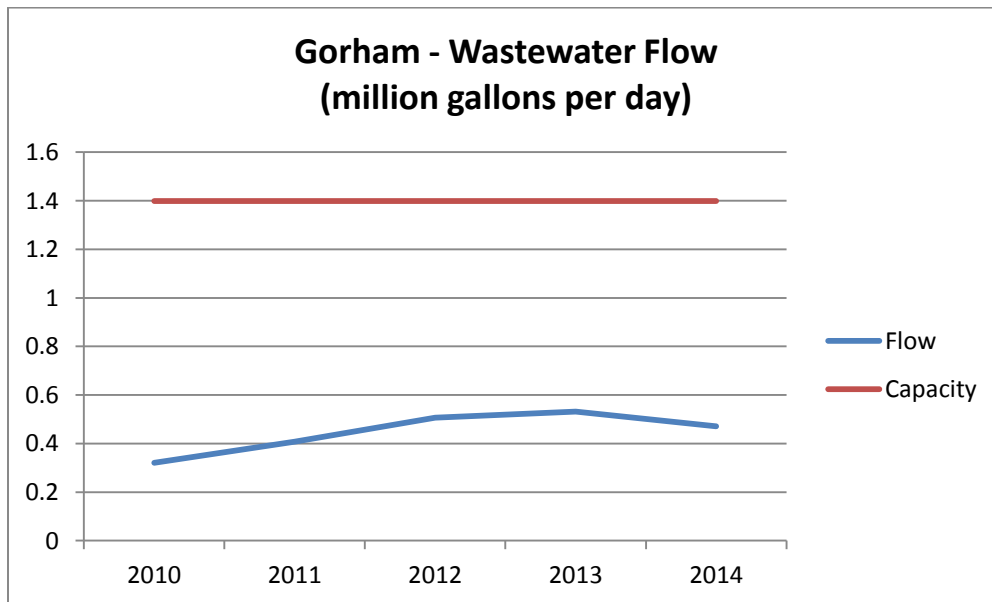
**Little Falls JT** – Up \$2.5k, Gorham % up (20.0% to 22.5%).

## 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	2014 Gorham Flow	Westbrook WWTF Flow	% Gorham Share
Total Gorham Flow	470,904 gal/day	2,954,342 gal/day	16.2%

WGWWTF Capacity	Gorham Capacity (30.8%)	2014 - % Capacity Used	Capacity Remaining
4,540,000 gal/day	1,398,320 gal/day	33.7%	927,416 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)

### 2015 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.

### 2016 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** – 2015 the district piloted KFC screw press. In 2016, either the screw or rotary press will be installed in 2016.



## 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 \$83,815 from the annual assessment in 2016.

The planned projects are listed below:

**Regional Treatment Plant Capital – 167:** The Westbrook Treatment Facility will undergo sludge dewatering upgrades which will be bonded (\$1,000,000). Gorham will pay a prorated share of the costs (\$308,000 or 30.8%).

**Regional Treatment Plant R&R – 416:** Routine and equipment renewal and replacements (\$50,000) as well as LED Lighting upgrades (\$12,000) will be financed through the renewal and replacement fund. Gorham will pay a prorated share of the costs (\$19,096).

**Gorham Pump Station Repair – 60:** Routine and equipment renewal and replacements (\$90,000). These projects will be financed through the renewal and replacement fund. These stations are Gorham only; therefore Gorham pays 100% of the costs to repair.

Capital Fund:	2014 Actual	2015 Projected	2016 Budget
Beginning of Year Fund Balance	\$518,731	\$595,951	\$559,343
<b>Source of Funds:</b>			
Bond Proceeds - current year	-	-	308,000
Renewal and Replacement Contribution	67,313	127,947	83,815
Operating Surplus Transfer	73,406	-	-
Capital Funding	140,719	127,947	391,815
<b>Capital Expenditures:</b>			
Gorham Pump Station R&R – 60	32,613	45,000	90,000
Laboratory Equipment R&R (prorated) – 95	1,125		
Treatment Plant Flow Splitting & Secondary Clarifier Carry-Forward Project (prorated) – 167	-	80,850	
WWTF Sludge Dewatering (prorated) – 167	-	-	308,000
SCADA System Controls @ WWTF(prorated) -177	28,743	10,985	
Little Falls R&R - 180	1,018	-	
Treatment Plant R&R (prorated) – 416	-	27,720	19,096
Capital Expenditures	63,499	164,555	417,096
End of Year Fund Balance	595,951	559,343	534,062

## 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:

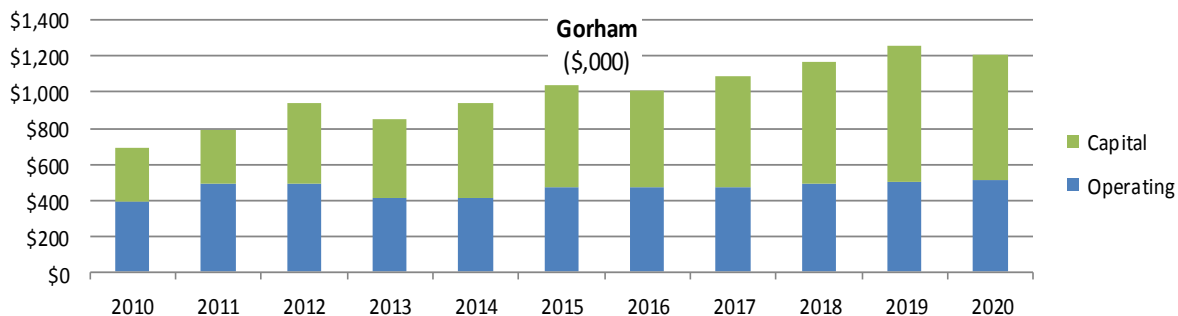
The assumptions incorporated in the projections are as follows:

- Salary increases of 2% each year. Maintain same number of employees.
- Benefit increases of 5% each year. Assumed pension contribution increased to \$1.2 million a year in 2016 and health insurance increases 7% per year.
- Other expenses increase by 2.5% in 2016-2017 and 3.5% in subsequent years.
- New debt service and renewal/replacement fund expenditures consistent with the 2016 5-year capital plan (new debt assumed a 20 year life at 5%). The most significant project is the \$1.0 million sludge dewatering upgrade at the Westbrook Regional Treatment Facility.

### Summary

Assessment is projected to increase to \$1,179,554 by 2020, a 7% increase. 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
Gorham	39%	36%	36%	36%	34%	33%	32%

#### Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020
Gorham	1.37	1.34	1.24	1.23	1.28	1.28	1.27

## Projections for Rate-Making Purposes (continued)

### Operating Fund:

Wastewater Gorham	2016	2017	2018	2019	2020
<b>Revenue:</b>	<b>Budget</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>
Assessment Income	\$1,106,148	\$1,144,863	\$1,156,312	\$1,167,875	\$1,179,554
Other Income	18,800	18,800	18,800	18,800	18,800
Interest Income	5,995	5,995	5,995	5,995	5,995
Total Revenue	1,130,943	1,169,658	1,181,107	1,192,670	1,204,349
<b>Expense:</b>					
Contracted Svcs	52,512	53,825	55,709	57,659	59,677
Salaries/Wages	88,717	90,491	92,301	94,147	96,030
Employee Benefits	45,793	48,083	50,487	53,011	55,662
Purchased Power	45,099	45,099	46,677	48,311	50,002
Biosolids Disposal	50,248	51,504	53,307	55,173	57,104
Transportation	29,442	30,178	31,234	32,327	33,458
Chemicals	10,638	10,904	11,286	11,681	12,090
Materials/Supplies	23,314	23,897	24,733	25,599	26,495
Heat/Fuel Oil	6,405	6,565	6,795	7,033	7,279
Tele/Oth Utilities	3,279	3,361	3,479	3,601	3,727
Insurance	1,621	1,662	1,720	1,780	1,842
Other Expense	903	926	958	992	1,027
Support Services:					
Administration	134,762	138,131	141,584	145,124	148,752
Engineering Services	71,651	79,842	81,838	83,884	85,981
Environmental Services	15,813	16,208	16,613	17,028	17,454
Wastewater Services	49,174	50,403	51,663	52,955	54,279
Water Services	3,060	3,137	3,215	3,295	3,377
Capital:					
Debt Service	401,657	419,060	397,090	391,086	384,591
Renewal & Replacement	96,855	96,855	96,855	96,855	96,855
Total Expense	1,130,943	1,170,131	1,167,544	1,181,541	1,195,682
Annual Surplus (Deficit)	0	-473	13,563	11,129	8,667
Transfer to R&R					
Carryforward Surplus	476,416	476,416	475,943	489,506	500,635
Period Ending Surplus	476,416	475,943	489,506	500,635	509,302
Target	282,736	292,533	291,886	295,385	298,921
Above Target	\$193,680	\$183,410	\$197,620	\$205,250	\$210,382

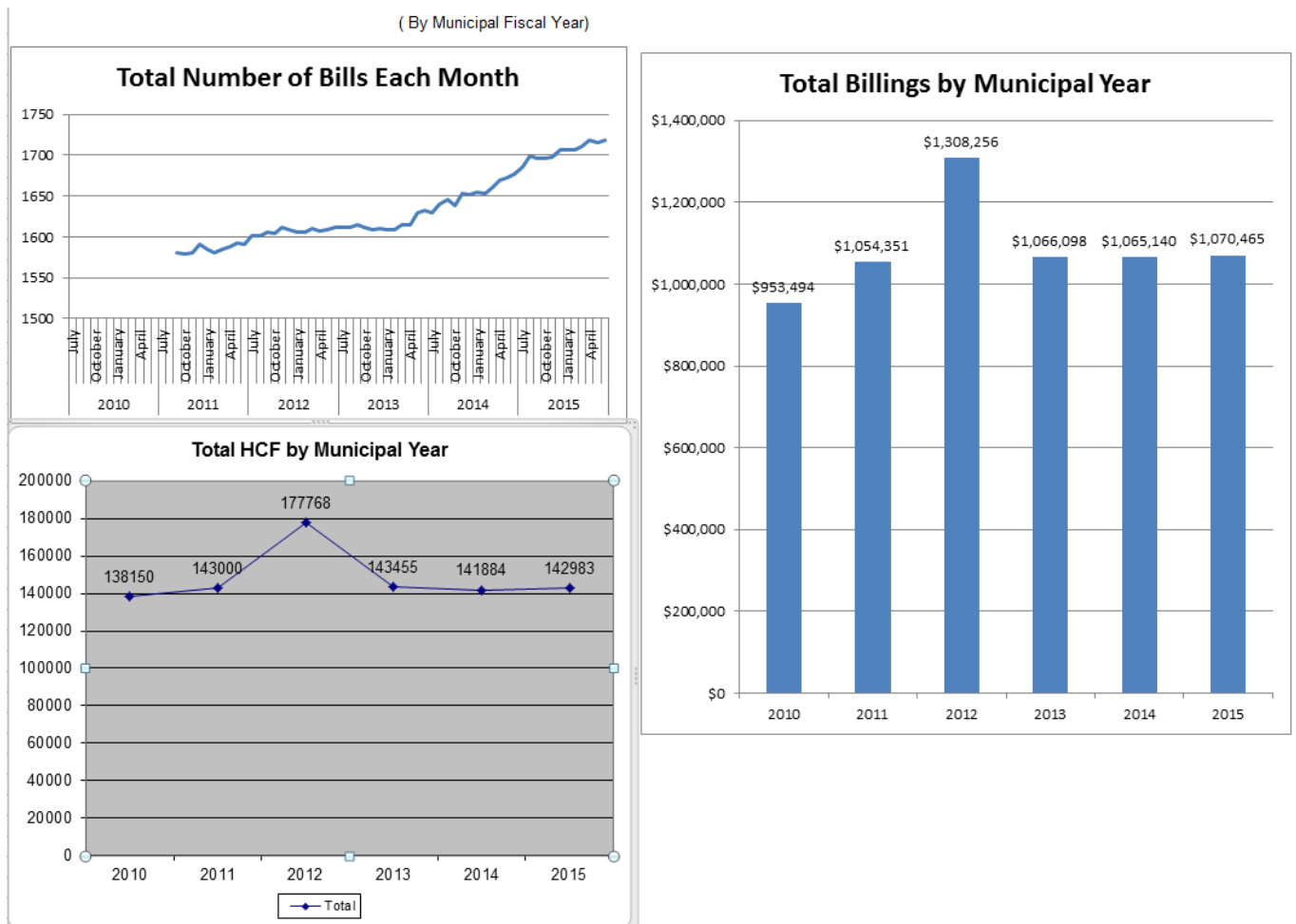
### Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$526,000

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2016	559,343	83,815	308,000	\$417,096	534,062
2017	534,062	123,181	0	\$43,162	614,081
2018	614,081	122,762	0	\$53,500	683,343
2019	683,343	151,096	0	\$74,680	759,759
2020	759,759	151,096	0	210,200	700,655



## 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.

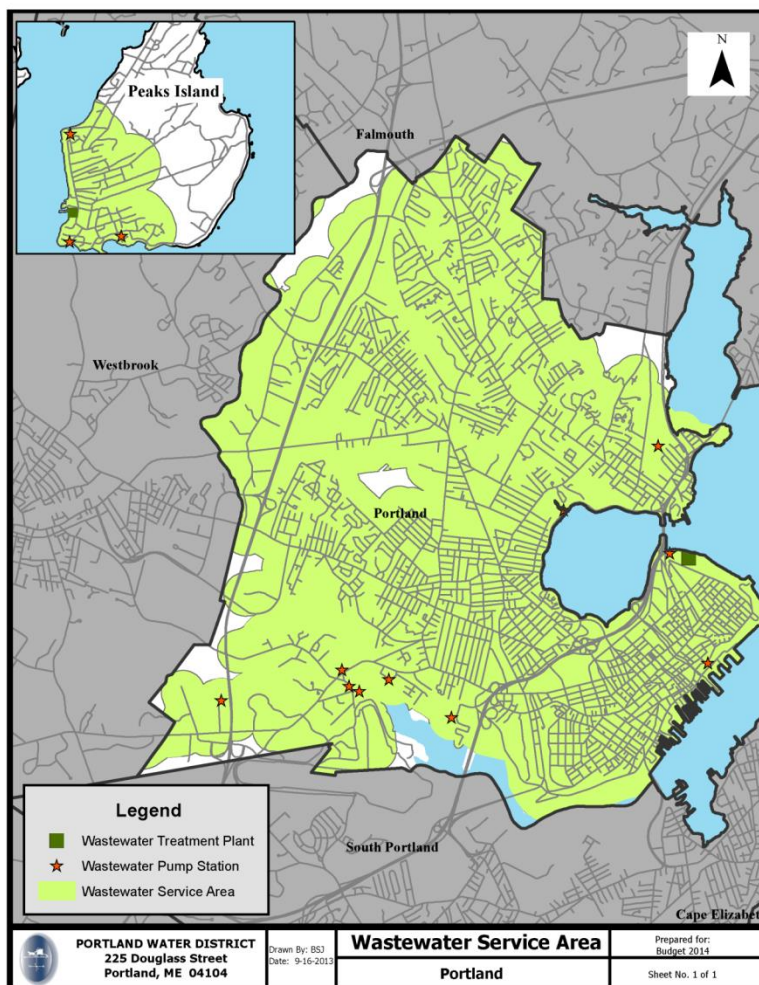


## Fund: Wastewater - Portland

### 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

13 Pump Stations with 23.1 miles of pipe

#### Storm Water system

Peaks Island with 1.7 miles of pipe

#### Utility Billing

Annual Billings of \$22,380,342 on 16,968 Customers (avg. \$109.91/month)

## Fund: Wastewater - Portland

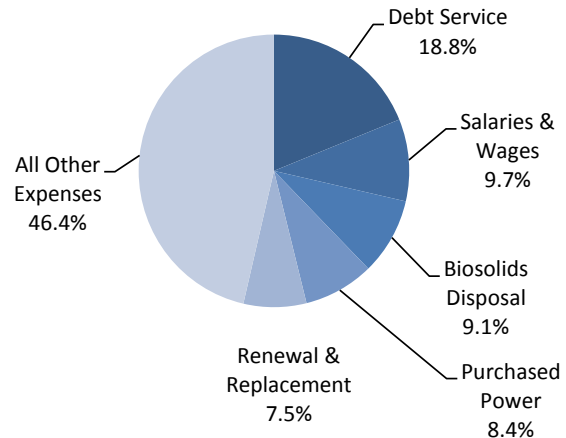
### 2016 Financial Summary

The city's assessment will increase 3.0% or \$327,432 to \$11,308,740. The assessment is \$221,633 less than the forecasted assessment provided the city last year.

The proposed 2016 Operating Expense and Capital budgets are \$11,424,533 and \$740,000, respectively.

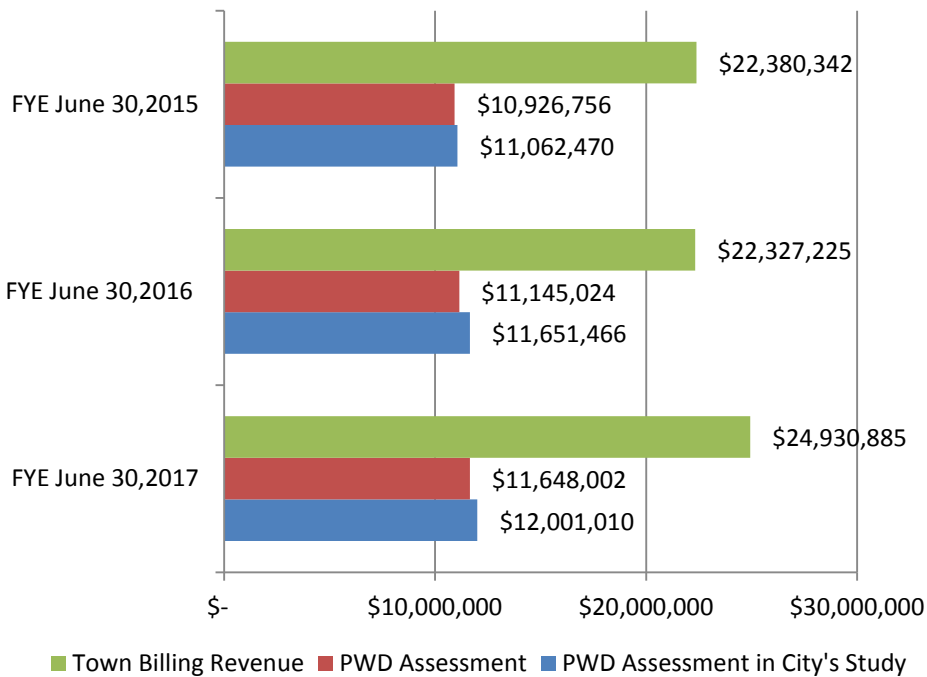
The Operating Expense budget is \$329,090, or 3.0%, higher than the previous year. Departmental expense increased by 1.6% or \$131,512. Debt service increased \$184,159 (5.9%) and renewal & replacement (direct and indirect) will be \$857,846.

### 2016 Operating Expense



### 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

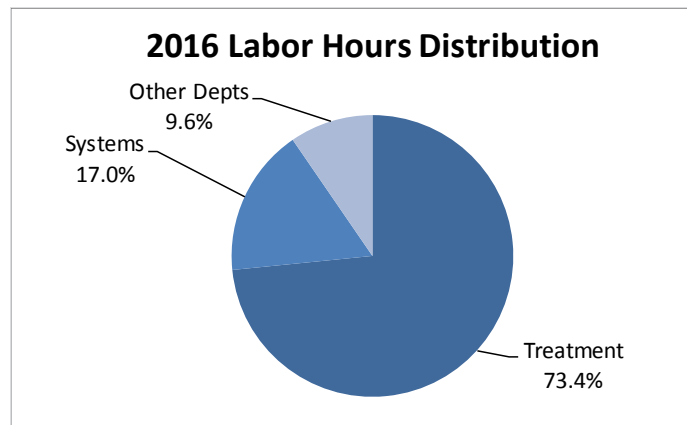
#### Per study:

Jul 1 2016	\$9.35
Jul 1 2017	\$10.25

## 2016 Operating Expense Highlights

**Salaries/Wages** – Budgeted expenses decreased 4.7% or \$55,278 to \$1,113,110. The decrease was primarily due to the elimination of a position at the treatment plant. A total of 45,412 hours (21.8 full time equivalents) were budgeted for 2016.

**Employee Benefits** – This cost is charged as a percentage of regular wages. It decreased 3.1% or \$17,995 to a total of \$555,817. The benefit rate increased 1.9% due to increases in pension costs.



**Biosolids Disposal** – The budget for this item was increased 0.1% (\$1,412). The budget assumes a 2.3% increase in volume (wet tons) mostly offset by a 2.1% decrease in the disposal cost per ton rate.

**Chemicals** – Overall this category is up \$56,375 or 10.0%. The biggest change was the budget for polymer usage at the East End WWTF, up \$67,900 (44.8%). The budget increase is attributed to estimated 45% increase in usage needed to maintain operating efficiency in the dewatering process.

**Heat/Fuel Oil** – The majority of the expense in this category involves pipeline delivered natural gas at the East End WWTF. The budget, at reduction of \$17,733, assumes a decrease in both volume and price from the previous budget.

**Materials & Supplies** – About half of the proposed budget increase is for the one time purchase of equipment for the wastewater laboratory. Overall, the budget increase is \$13,626 or 5.0%.

**Purchased Power** – Increases in delivery costs were mostly offset by decreases in supply (energy) costs. The result was an increase of 0.8% (\$7,675).

**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 4.4% (\$120,518). Engineering Services increased in large part due to the creation of a new SCADA Specialist position. Another position was eliminated in the process which was part of the reason for decline in Salaries/Wages as well as Employee Benefits. The increase in Environmental Services reflects a shift in the laboratory work load more towards the wastewater areas.

**Debt Service** - The annual principal and interest payments on bonds issued to finance capital projects. The expense will increase \$184,159 (9.4%) in the 2016 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 \$857,846 will be made in 2016.

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$10,872,204	\$5,490,654	\$10,981,308	\$11,308,740	\$327,432	3.0%
Interest Income	20,945	16,663	17,186	16,093	-1,093	-6.4%
Other Income	<u>113,356</u>	<u>38,953</u>	<u>96,950</u>	<u>99,700</u>	<u>2,750</u>	<u>2.8%</u>
Total Revenue	11,006,505	5,546,270	11,095,444	11,424,533	329,089	3.0%
Salaries & Wages	1,100,899	551,073	1,168,388	1,113,110	-55,278	-4.7%
Employee Benefits	516,121	273,787	573,812	555,817	-17,995	-3.1%
Biosolids Disposal	1,121,120	561,485	1,041,007	1,042,419	1,412	0.1%
Chemicals	622,176	268,188	566,582	622,957	56,375	10.0%
Contracted Services	414,170	280,758	569,551	570,392	841	0.1%
Heat/Fuel Oil	129,496	123,754	156,027	138,294	-17,733	-11.4%
Insurance	26,113	13,066	28,055	26,133	-1,922	-6.9%
Materials & Supplies	199,342	82,733	273,003	286,629	13,626	5.0%
Other Expense	11,633	-5,878	15,772	16,082	310	2.0%
Purchased Power	924,404	460,622	952,977	960,652	7,675	0.8%
Tele/Other Utilities	86,158	53,902	97,948	119,197	21,249	21.7%
Transportation	83,628	34,745	97,636	100,070	2,434	2.5%
SS - Administration	1,176,221	618,983	1,303,461	1,328,833	25,372	1.9%
SS - Engineering Services	296,235	146,253	428,393	487,984	59,591	13.9%
SS - Environmental Services	280,596	126,076	266,260	300,918	34,658	13.0%
SS - Wastewater Services	761,306	381,091	711,173	708,247	-2,926	-0.4%
SS - Water Services	<u>23,158</u>	<u>12,989</u>	<u>31,715</u>	<u>35,538</u>	<u>3,823</u>	<u>12.1%</u>
Departmental Expense	7,772,776	3,983,627	8,281,760	8,413,272	131,512	1.6%
Debt Service	1,979,249	964,475	1,969,256	2,153,415	184,159	9.4%
Renewal & Replace - Indirect	115,581	58,115	116,231	132,846	16,615	14.3%
Renewal & Replacement - Direct	<u>728,196</u>	<u>364,098</u>	<u>728,196</u>	<u>725,000</u>	<u>-3,196</u>	<u>-0.4%</u>
Operating Expense	10,595,802	5,370,315	11,095,443	11,424,533	329,090	3.0%
Current Year Surplus (Deficit)	410,703	175,955	1	0		
Transfer to R&R	-410,703	0	0	0		
Prior Year Surplus	<u>3,324,976</u>	<u>3,324,976</u>	<u>3,584,761</u>	<u>3,503,647</u>		
Accumulated Surplus	3,324,976	3,500,931	3,584,762	3,503,647		

## Operation Summary

**Wastewater Treatment:** The Portland Water District operates and maintains the treatment facilities for the City of Portland. The largest facility, East End WWTF 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	2014 Facility Avg	2014 -% Capacity Used
Flow (million gallons per day)	19.8 mgd	18.07 mgd	91.3 %
Biosolids Removed (wet tons/month)	N/A	1,465 wt/month	

### Effluent Permit Requirements:

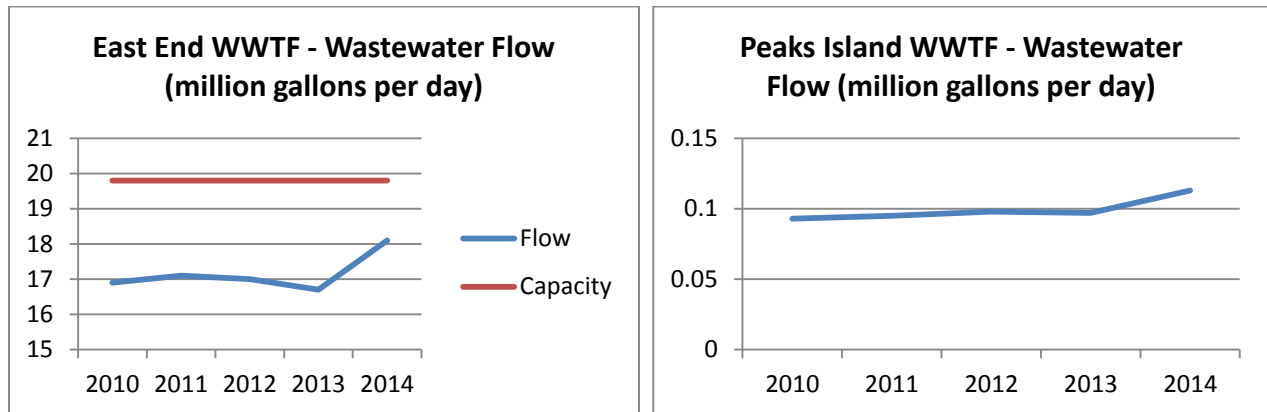
Parameter	Discussion																								
Biological Oxygen Demand (BOD)	Measure of organic material and the strength of pollution. The treatment plant removed 91% of the BOD; well above the required 85% removal.																								
Total Suspended Solids (TSS)	Measure of suspended material in 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.																								
<div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p style="text-align: center;"><b>East End WWTF - License Exceedences</b></p> <table border="1"> <caption>East End WWTF - License Exceedences</caption> <thead> <tr> <th>Year</th> <th>Exceedences</th> </tr> </thead> <tbody> <tr> <td>2010</td> <td>35</td> </tr> <tr> <td>2011</td> <td>15</td> </tr> <tr> <td>2012</td> <td>35</td> </tr> <tr> <td>2013</td> <td>7</td> </tr> <tr> <td>2014</td> <td>7</td> </tr> </tbody> </table> </div> <div style="width: 45%;"> <p style="text-align: center;"><b>Peaks Island WWTF - License Exceedences</b></p> <table border="1"> <caption>Peaks Island WWTF - License Exceedences</caption> <thead> <tr> <th>Year</th> <th>Exceedences</th> </tr> </thead> <tbody> <tr> <td>2010</td> <td>6</td> </tr> <tr> <td>2011</td> <td>23</td> </tr> <tr> <td>2012</td> <td>8</td> </tr> <tr> <td>2013</td> <td>1</td> </tr> <tr> <td>2014</td> <td>1</td> </tr> </tbody> </table> </div> </div>		Year	Exceedences	2010	35	2011	15	2012	35	2013	7	2014	7	Year	Exceedences	2010	6	2011	23	2012	8	2013	1	2014	1
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## Operation Summary (continued)

The current Discharge Permit for the East End facility will expire on August 17, 2016. The renewal process will begin in the early part of 2016. Potential changes to the manner in which DEP regulates high flows and the possible inclusion of an effluent nitrogen limit will be reviewed during the permit renewal process.

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.



### Wastewater Conveyance – interceptors and pumping stations

Parameter	2015 Actual to Sept	2016 Projected
Preventative Work Orders	90	150
Corrective Work Orders	45	50
Wet wells cleaned	7	15
Debris removed (tons)	10.8	15
Dry Weather Overflows	2	0



## Operation Summary (continued)

### 2015 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 response to concerns regarding odors from the facility, an odor management plan and notification system was implemented. The intensity and volume of odor complaints has been reduced through these efforts.
- 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. The facility is monitored through the SCADA control system at the East End WWTF.
- District Staff has worked with the City of Portland on the expansion of the Peaks Island collection system. The project was completed in 2013. The City has completed inspections of residential systems to identify sources of inflow/infiltration that will be removed to allow for the additional flow associated with the expansion. Several of these have been addressed by the City.
- Design of an aeration system began in 2014. Construction on the project began in 2015. The project will be completed in 2017.
- Through a cooperative effort with the Engineering Department all the equipment at the treatment plant was reviewed and the information in the asset management system was updated. Work will continue at the East End plant in 2016.
- The Fore River Pump Station Upgrade began in 2015 and will be completed in 2016. This project will replace the pumps, which are original pumps included to the 1979 pump station.

### 2016 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 CSO flow meters are reaching their design life. Planned replacement of many of these meters will begin in 2016.

## 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:

**Pump Stations R&R – 70:** Fore River PS roof repair (\$115,000), Northeast PS replacements, and routine and equipment renewal and replacements (\$150,000), financed from the renewal and replacement fund totaling \$265,000.

**Portland CSO Mitigation – 131:** CSO flow meter upgrades financed from the renewal and replacement fund totaling \$200,000.

**East End Treatment Plant R&R – 409:** Four small plant upgrades (\$155,000) including a secondary clarifier condition assessment, financed from the renewal and replacement fund.

**Peaks Island R&R – 423 / 177:** Peaks Island influent screening system replacement equipment renewal and replacements, financed from the renewal and replacement fund (\$120,000).

Capital Fund:	2014 Actual	2015 Projected	2016 Budget
Beginning of Year Fund Balance	\$2,551,065	\$2,813,289	\$1,810,164
Source of Funds:			
Bond Proceeds - prior year(s)	-	-	8,400,000
Bond Proceeds - current year	-	2,000,000	-
Bond Proceeds - future year	-	-	-
Renewal and Replacement Contribution	728,196	728,196	725,000
Operating Surplus Transfer	410,702		-
Other Sources	-	-	-
Capital Funding	1,138,898	2,728,196	9,125,000
Capital Expenditures:			
Pump Station R&R – 70	136,399	176,594	265,000
Pump Station Capital Program – 420	-	-	1,400,000
CSO Program R&R – 131	-	200,000	200,000
East End Treatment Facility R&R – 409	78,673	667,824	155,000
East End Treatment Facility Capital Program – 21	600,990	2,000,000	7,000,000
Peaks Island R&R – 423 / 177	3,087	553,977	120,000
Peaks Island Capital Program – 118	-	-	
Laboratory – 95	42,285	-	
SCADA / Process Control Program – 177	15,240	132,926	-
Capital Expenditures	876,674	3,731,321	9,140,000
End of Year Fund Balance	2,813,289	1,810,164	1,795,164

## 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:

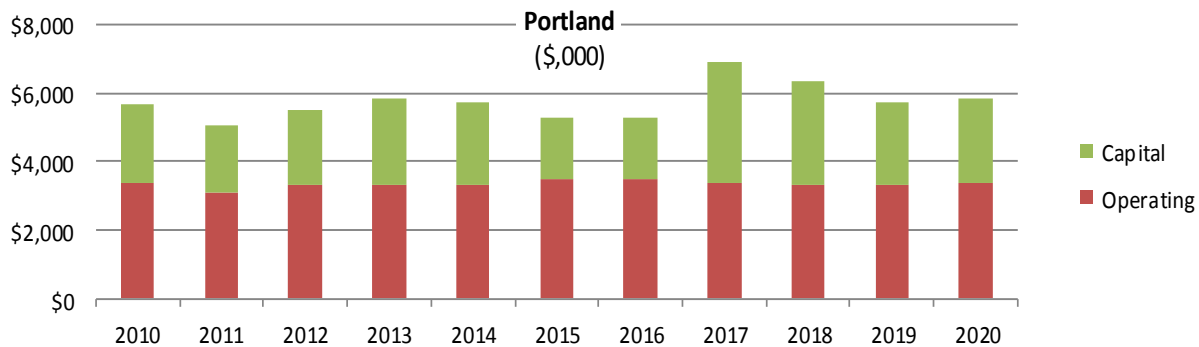
The assumptions incorporated in the projections are as follows:

- Salary increases of 2% each year. Maintain same number of employees.
- Benefit increases of 5% each year. Assumed pension contribution increased to \$1.2 million a year in 2016 and health insurance increases 7 % per year.
- Other expenses increase by 2.5% in 2016-2017 and 3.5% in subsequent years.
- New debt service and renewal/replacement fund expenditures consistent with the 2016 5-year capital plan (new debt assumed a 20 year life at 5%). The most significant projects are related to upgrading the Fore River and Northeast pump station at a little more than \$3.0 million.

### Summary

Assessment is projected to increase to \$13,095,127 by 2020. 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
Portland	19%	18%	19%	23%	25%	24%	23%

#### Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020
Portland	1.63	1.43	1.40	1.27	1.25	1.27	1.29

## Projections for Rate-Making Purposes (continued)

### Operating Fund:

Wastewater Portland	2016	2017	2018	2019	2020
<b>Revenue:</b>	<b>Budget</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>
Assessment Income	\$11,308,740	\$11,987,264	\$12,586,627	\$12,838,360	\$13,095,127
Other Income	99,700	99,700	99,700	99,700	99,700
Interest Income	16,093	16,093	16,093	16,093	16,093
Total Revenue	11,424,533	12,103,057	12,702,420	12,954,153	13,210,920
<b>Expense:</b>					
Biosolids Disposal	1,042,419	1,063,267	1,100,481	1,138,998	1,178,863
Salaries/Wages	1,113,110	1,135,372	1,158,079	1,181,241	1,204,866
Employee Benefits	555,817	583,608	612,788	643,427	675,598
Purchased Power	960,652	979,865	1,014,160	1,049,656	1,086,394
Chemicals	622,957	635,416	607,656	628,924	650,936
Contracted Svcs	570,392	581,800	602,163	623,239	645,052
Heat/Fuel Oil	138,294	141,060	145,997	151,107	156,396
Materials/Supplies	286,629	292,362	302,595	313,186	324,148
Transportation	100,070	102,071	105,643	109,341	113,168
Tele/Oth Utilities	119,197	121,581	125,836	130,240	134,798
Insurance	26,133	26,656	27,589	28,555	29,554
Other Expense	16,082	26,404	27,328	28,284	29,274
Support Services:					
Administration	1,328,833	1,355,410	1,382,518	1,410,168	1,438,371
Wastewater Services	708,247	722,412	736,860	751,597	766,629
Engineering Services	487,984	477,744	487,299	497,045	506,986
Environmental Services	300,918	306,936	313,075	319,337	325,724
Water Services	35,538	36,249	36,974	37,713	38,467
Capital:					
Debt Service	2,153,415	2,765,760	3,139,429	3,078,558	3,016,465
Renewal & Replacement	857,846	844,257	844,257	844,257	844,257
Total Expense	11,424,533	12,198,230	12,770,727	12,964,873	13,165,946
Annual Surplus (Deficit)	0	-95,173	-68,307	-10,720	44,974
Carryforward Surplus	3,503,647	3,503,647	3,408,474	3,340,167	3,329,447
Period Ending Surplus	3,503,647	3,408,474	3,340,167	3,329,447	3,374,421
Target	2,856,133	3,049,558	3,192,682	3,241,218	3,291,487
Above/(Below) Target	\$647,514	\$358,917	\$147,485	\$88,229	\$82,935

### Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$ 2,990,000

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2016	1,810,164	725,000	8,400,000	9,140,000	1,795,164
2017	1,795,164	725,000	4,500,000	3,505,000	3,515,164
2018	3,515,164	725,000	0	1,205,000	3,035,164
2019	3,035,164	725,000	0	1,330,000	2,430,164
2020	2,430,164	725,000	0	660,000	2,495,164

## Storm Water Fee

The City of Portland plans on implement 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 (see figure 2). The city will bill the District for storm water and the 2016 Budget includes \$24,118 for the fee.

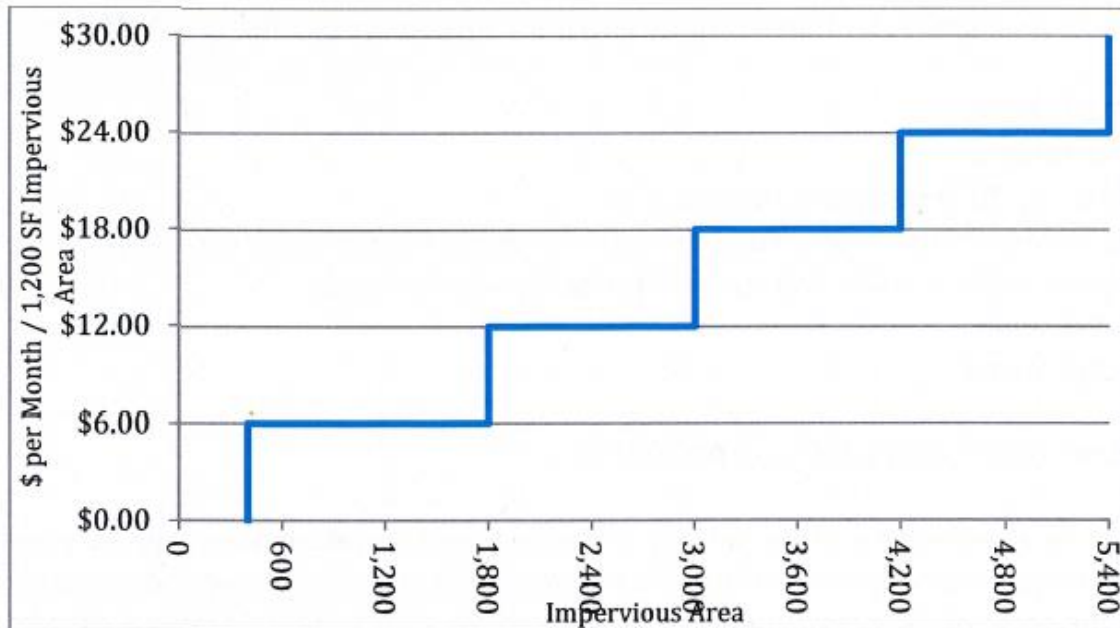


Figure 1: Stormwater Service Charge Rate

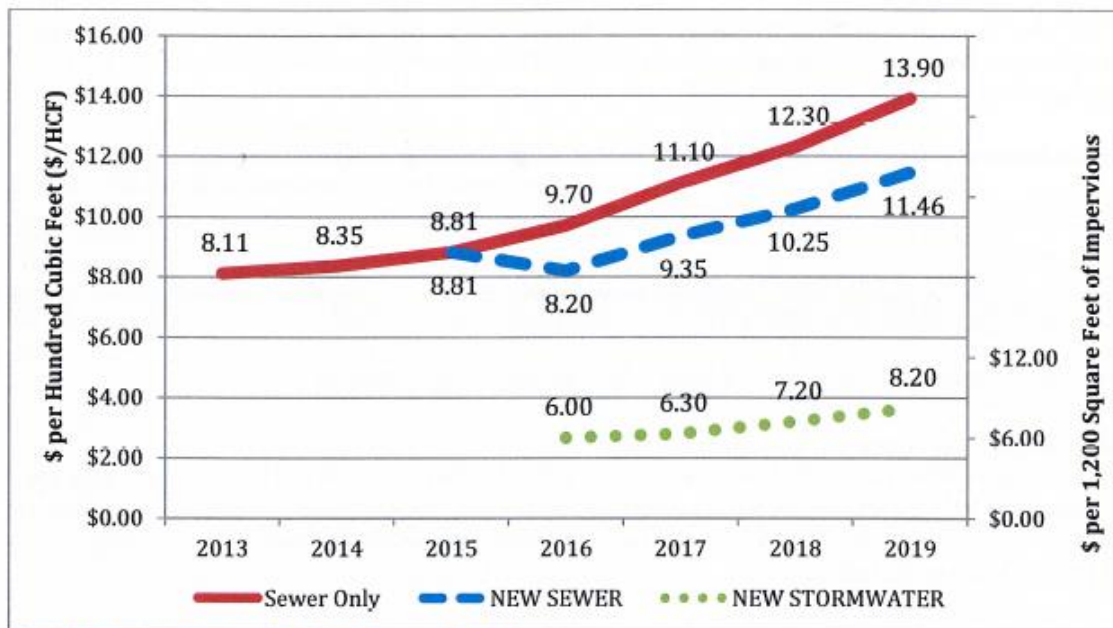
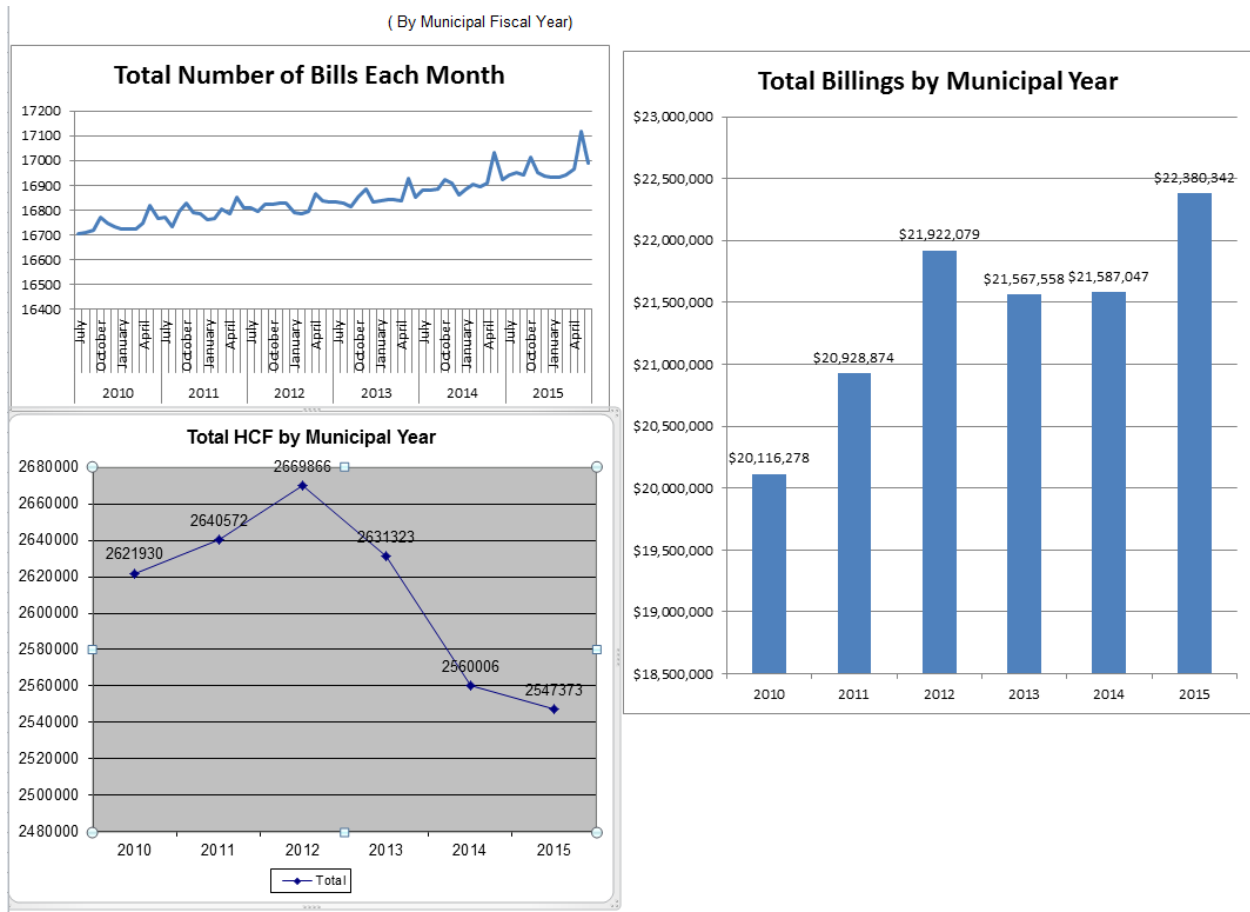


Figure 2: Projected Sewer Rate and Stormwater Rate.

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

## Sewer Billing Statistics

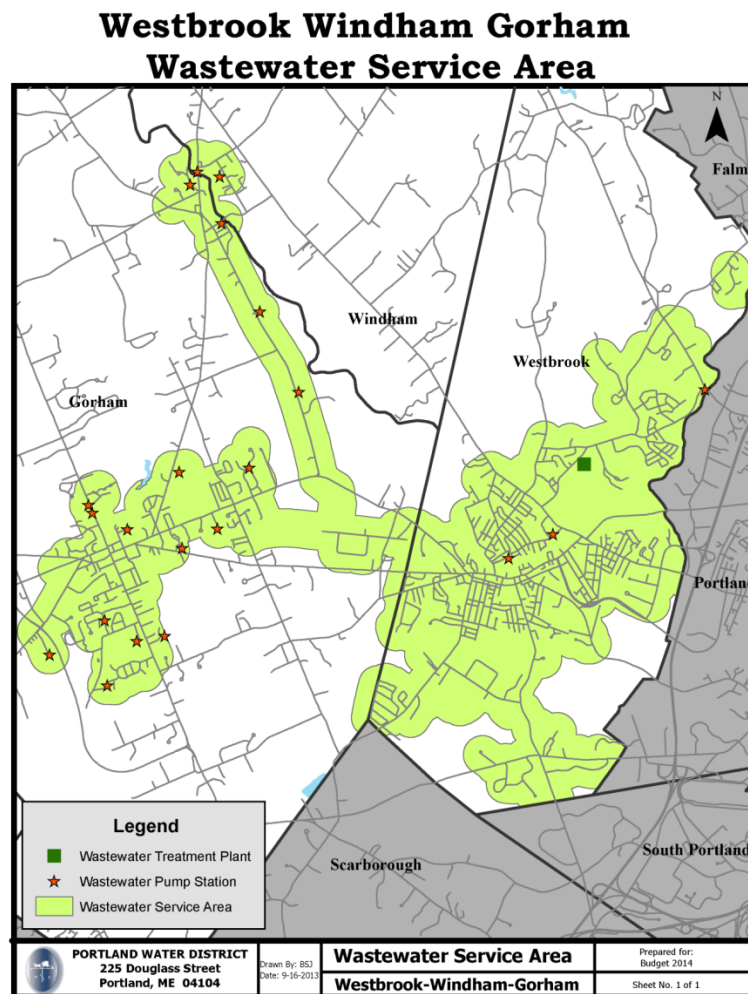
The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District's water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.



## **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 8.0 miles of pipe*

#### ***Utility Billing***

*Annual Billings of  
\$4,097,020 on 4,484  
Customers (avg.  
\$76.14/month)*



## Fund: Wastewater - Westbrook

### 2016 Financial Summary

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

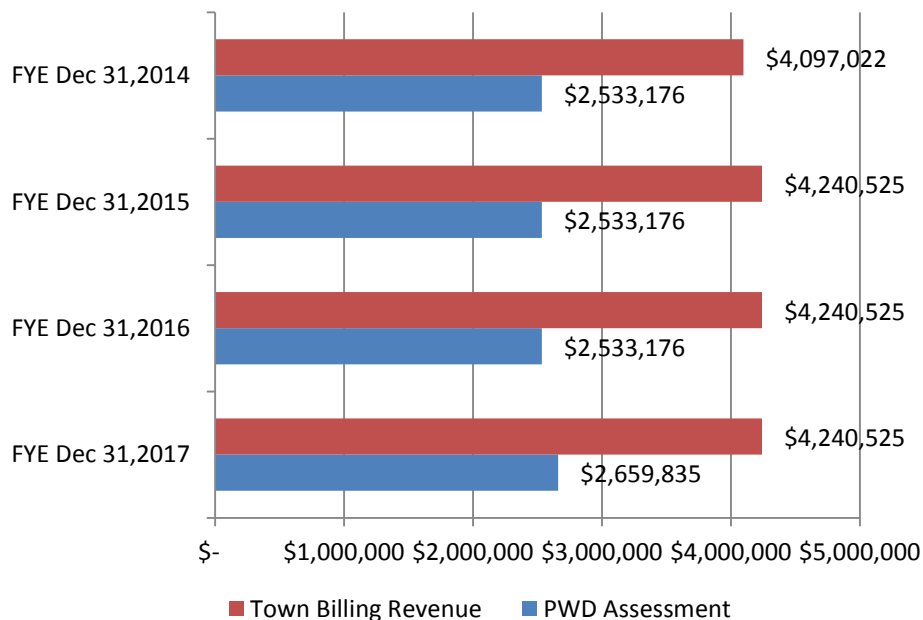
The proposed 2016 Operating Expense and Capital budgets are \$2,768,176 and \$935,292 respectively.

The Operating Expense budget is \$77,071 higher (2.9%) than the previous year. Departmental Expense increased by \$6,424 or 0.4%, Debt Service rose 15.5% to \$498,441 while Renewal & Replacement (direct and indirect) funding increased by \$3,764 to \$438,736.

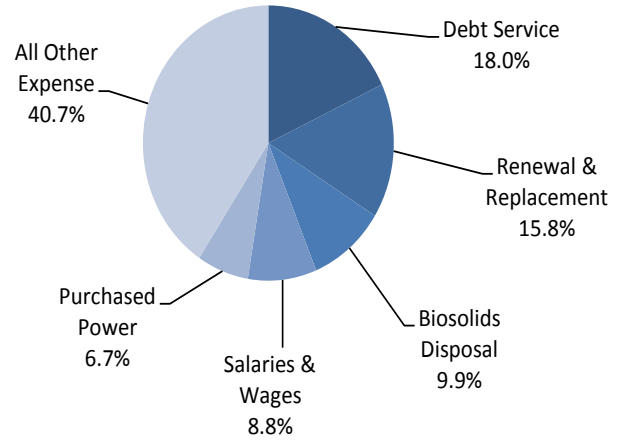
The major capital project in 2016 includes a sludge dewatering upgrade at the treatment plant.

### 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.



### 2016 Operating Expense



#### Revenue Assumptions:

- Consumption is the 12 months ending Sep 30, 2015
- Rates Assumed:  
Effective Date: Jan 2013  
Base/Per HCF: \$11.13/\$6.13

## 2016 Operating Expense Highlights

**Salaries/Wages** – The expense decrease of 3.8% (\$9,706) has resulted in a budget amount of \$244,849. District labor rates increased an average of 2.0% while hours for this fund declined 6.8% in large part due to the lower flows in Westbrook. A total of 9,795 hours (4.71 full time equivalents) were budgeted for 2016.

**Employee Benefits** – Benefits, which are charged as a percentage of regular wages, decreased 2.1% (\$2,815) to a total of \$128,167. The benefit rate increased 1.9% due to increases in pension costs.

**Biosolids Disposal** – The budget assumed the volume of wet tons disposed would increase by 3.1% offset by an estimated 2.1% decrease in the disposal rate. The net increase in the costs of disposal at the Westbrook Regional WWTF was 1.0%. In addition, Westbrook's share of treatment costs decreased from 84.7% in 2015 to 82.0% in 2016 resulting in 2.2% (\$6,317) decrease.

**Chemicals** – The 2016 Budget assumed a lower volume of chemicals based on historic usage and flat and/or lower per unit costs. That, when combined with lower wastewater flows, resulted in a 22.0% (\$16,530) decrease in expense.

**Contracted Services** – This expense is up \$11,436 (9.3%) due to increases in engineering services (\$8,173) to provide software updates and other technical assistance with treatment plant operations as well as additional outside laboratory testing (\$3,653) required by regulators as the plant enters the last year of its current license.

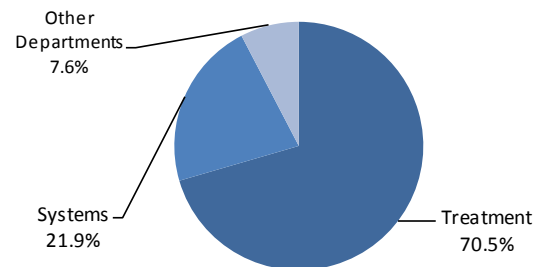
**Purchased Power** – Increases in delivery costs were offset by decreases in supply (energy) costs. In addition, due to the lower Westbrook flows at jointly used facilities (from 84.7% to 82.0%) also helped lower costs. Overall, the budget is 0.6% (\$1,094) lower than last year's budget. The budgeted amount for 2016 is \$184,683.

**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. The combined Support Services costs increased 6.1% (\$38,896). Engineering Services increased in large part due to the creation of a new SCADA Specialist position. Another position was eliminated in the process which was part of the reason for decline in Salaries/Wages as well as Employee Benefits. The increase in Environmental Services reflects a shift in the laboratory work load more towards the wastewater areas. Water Services increased due to more work being done with the maintenance of meters in the field.

**Debt Service** – The annual principal and interest payments on bonds issued to finance capital projects. This item increased 15.5% (\$66,883) due to the 2015 bond issue for the CSO project.

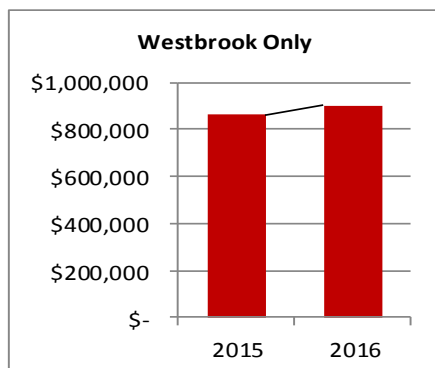
**Renewal & Replacement** – Dollars put aside to fund capital projects, the 2016 contribution is \$438,736.

**2016 Labor Hours Distribution**

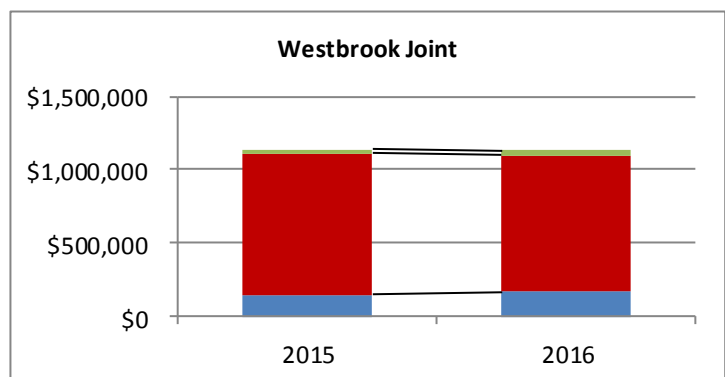


	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$2,533,176	\$1,266,588	\$2,533,176	\$2,533,176	\$0	0.0%
Interest Income	17,129	15,532	15,869	21,356	5,487	34.6%
<u>Other Income</u>	<u>147,232</u>	<u>26,361</u>	<u>142,060</u>	<u>128,900</u>	<u>-13,160</u>	<u>-9.3%</u>
Total Revenue	2,697,537	1,308,481	2,691,105	2,683,432	-7,673	-0.3%
Salaries & Wages	259,674	119,619	254,555	244,849	-9,706	-3.8%
Employee Benefits	125,648	62,523	130,982	128,167	-2,815	-2.1%
Biosolids Disposal	275,282	140,997	281,008	274,691	-6,317	-2.2%
Chemicals	59,782	26,293	75,014	58,484	-16,530	-22.0%
Contracted Services	103,377	39,706	122,365	133,801	11,436	9.3%
Deferred Cost W/O	10,602	9,301	18,602	14,400	-4,202	-22.6%
Heat/Fuel Oil	25,294	18,847	25,010	22,330	-2,680	-10.7%
Insurance	6,017	3,028	6,492	5,930	-562	-8.7%
Materials & Supplies	46,081	12,043	41,223	40,477	-746	-1.8%
Other Expense	4,373	4,467	5,085	4,517	-568	-11.2%
Purchased Power	177,475	94,821	185,777	184,683	-1,094	-0.6%
Tele/Other Utilities	12,953	4,688	14,144	14,332	188	1.3%
Transportation	16,602	5,685	11,325	11,449	124	1.1%
SS - Administration	289,786	146,016	307,669	315,293	7,624	2.5%
SS - Engineering Services	59,286	30,815	89,442	99,520	10,078	11.3%
SS - Environmental Services	92,123	40,753	86,869	95,200	8,331	9.6%
SS - Wastewater Services	167,911	90,089	161,210	174,451	13,241	8.2%
<u>SS - Water Services</u>	<u>5,497</u>	<u>3,086</u>	<u>7,803</u>	<u>8,425</u>	<u>622</u>	<u>8.0%</u>
Departmental Expense	1,737,763	852,777	1,824,575	1,830,999	6,424	0.4%
Debt Service	428,411	211,713	431,558	498,441	66,883	15.5%
Renewal & Replace - Indirect	27,638	13,534	27,068	30,832	3,764	13.9%
<u>Renewal &amp; Replace - Direct</u>	<u>405,798</u>	<u>203,952</u>	<u>407,904</u>	<u>407,904</u>	<u>0</u>	<u>0.0%</u>
Operating Expense	2,599,610	1,281,976	2,691,105	2,768,176	77,071	2.9%
Current Year Surplus (Deficit)	97,927	26,505	0	-84,744		
Transfer to R&R	-97,927	0	0	0		
Prior Year Surplus	1,404,156	1,404,156	1,439,317	1,495,024		
Accumulated Surplus	1,404,156	1,430,661	1,439,317	1,410,280		

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



**Westbrook Only** – Up \$37.3k (4.3%), due to increased efforts from the WW Systems group.

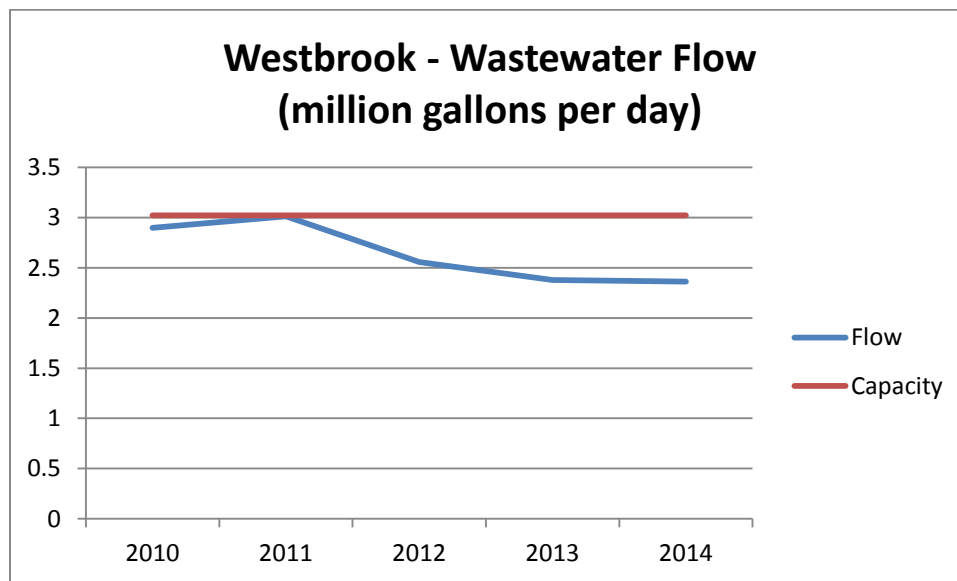


**Westbrook JT** – Flat, Westbrook % down (84.7% to 82.0%).

## 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)	2014 Flow (gallons per day)	% of 201 Flow	Reserved Capacity (gallons per day)	% of Capacity Used
Westbrook (66.6%)	2,397,520	80.8%	3,023,640	79.3%
Gorham (30.8%)	470,904	16.2%	1,398,320	33.7%
Windham (2.6%)	85,918	3.0%	118,040	72.8%
Total Plant Flow	2,945,342		4,540,000	64.9%



Various projects at this 35 year old facility have been completed to maintain operational efficiency. The following tables depict some of the key parameters that are monitored at the facility.

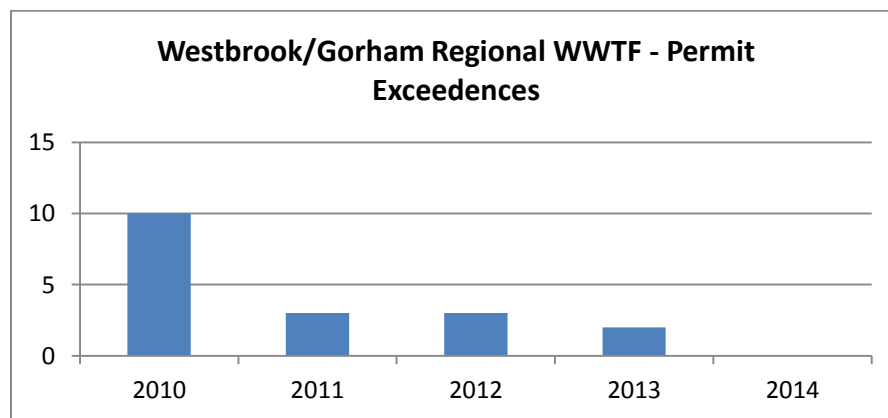
WGWTF Parameter	DEP Limit	2014 Facility Average
Biosolids Removed (wet tons/month)	N/A	425 wet ton/month

## 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 91% 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 the effluent permit limit.



### Wastewater Conveyance – interceptors and pumping stations

Parameter	2015 Actual to Oct	2016 Projected
Preventative Work Orders	48	50
Corrective Work Orders	15	20
Wet wells cleaned	1	3
Debris removed (tons)	1.6	3
Dry Weather Overflows	0	0

## Operation Summary (continued)

### 2015 Other Highlights

- CSO monitoring continues at the Westbrook 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.
- The aeration flow split project was completed. This has improved off-hours operations and the management of high flows.
- 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 the permit.
- Through a cooperative effort with the Engineering Department, all the equipment at the treatment plant was reviewed and the information in the asset management system was updated.
- Dewatering equipment trials were completed in 2015 and will serve as the basis for the design of a 2016 upgrade.

### 2016 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. DEP had not responded as of Oct 1, 2015.
- Preventative maintenance will continue to be the focus for operations personal during 2016.
- The sludge dewatering system will be upgraded in 2016. The upgrade will replace aging equipment, increase throughput capacity, and hopefully increase the consistency and solids content of hauled sludge.

## Operation Summary (continued)

Operational performance of the Westbrook/Gorham Regional Wastewater Treatment Facility, particularly during high flows, has been improved through a number of recent projects.



The aerators, shown in the top photo, provide oxygen to the treatment process. During peak wet weather events, these aerators are automatically turned on and off as part of the plant's high flow management. Following the aeration system, flow is split between two secondary clarifiers where the final effluent is separated from any remaining settleable solids. The automation and replacement of the flow split gates now provides an accurate flow split between each clarifier. Ensuring even flows in each clarifier assures the effluent continues to meet permit requirement during peak wet weather events. Following the completion of the disinfection system upgrade, a third residual chlorine analyzer was added. This analyzer now continually records the effluent chlorine residual in the plant effluent. If residual chlorine levels increase, the system will alert an operator to the condition so it can be immediately addressed. By monitoring the effluent continuously, an operator is no longer required to perform the daily test and weekend visits to the facility are no longer required.



## 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 \$431,558 from the annual assessment in 2015. The planned projects are listed below:

**Regional Treatment Plant Capital – 167:** The Westbrook Treatment Facility will have sludge dewatering upgrades (\$1,000,000). Westbrook's prorate share is \$666,000.

**Westbrook CSO Program R&R – 29:** The flow meter replacements (\$50,000) and Dana Street PS design upgrades (\$168,000) totaling \$218,000 will be financed with a 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 LED lighting upgrades (\$12,000) will be financed through the renewal and replacement fund. Westbrook will pay a prorated share of the costs (\$41,292).

Capital Fund:	2014 Actual	2015 Projected	2016 Budget
Beginning of Year Fund Balance	\$1,320,231	\$1,753,926	\$1,652,849
Source of Funds:			
Bond Proceeds - prior year	-	-	666,000
Bond Proceeds - current year	-	1,000,000	-
Renewal and Replacement	405,798	407,904	407,904
Operating Surplus Transfer	97,929	-	-
Capital Funding	503,727	1,407,904	1,073,904
Capital Expenditures:			
SCADA/ Proocess Controls R&R (prorated) - 177	62,151	21,635	-
Westbrook CSO program R&R - 29	-	1,242,581	218,000
Treatment Plant Capital Program (prorated) – 167	-	-	666,000
Carry-Forward Project (prorated) – 167 *	-	174,825	-
Westbrook only System Projects R&R - 411	-	10,000	10,000
Treatment Plant R&R (prorated) - 416	-	59,940	41,292
Laboratory Equipment R&R (prorated) – 95	7,881	-	-
Capital Expenditures:	70,032	1,508,981	935,292
End of Year Fund Balance	\$1,753,926	\$1,652,849	\$1,791,461

## 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:

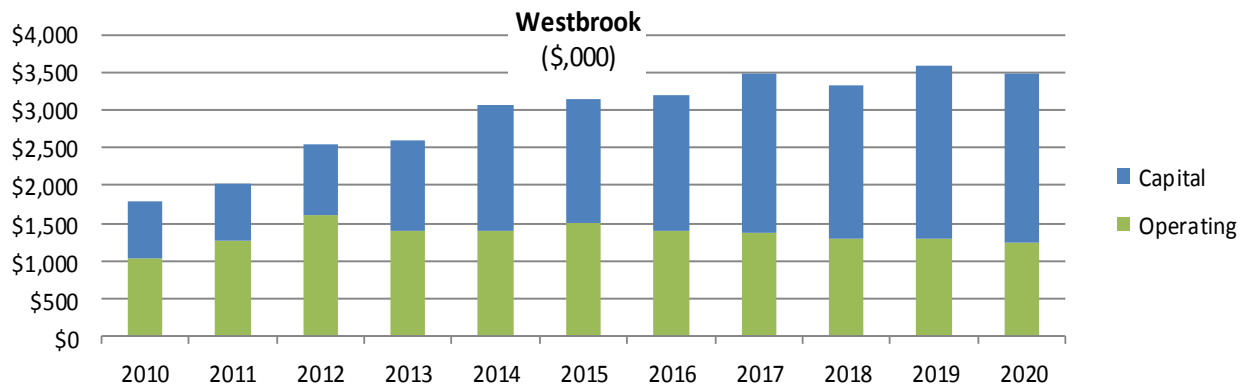
The assumptions incorporated in the projections are as follows:

- Salary increases of 2% each year. Maintain same number of employees.
- Benefit increases of 5% each year. Assumed pension contribution increased to \$1.2 million a year in 2016 and health insurance increases 7 % per year.
- Other expenses increase by 2.5% in 2016-2017 and 3.5% in subsequent years.
- New debt service and renewal/replacement fund expenditures consistent with the 2016 5-year capital plan (new debt assumed a 20 year life at 5%). The most significant projects are the almost \$5.0 million combined sewer overflow abatement projects and the \$1.0 million sludge dewatering upgrade project at the Westbrook Regional Treatment Facility.

### Summary

Assessment is projected to increase to \$3,225,715 by 2020. 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
Westbrook	16%	16%	18%	19%	22%	22%	28%

#### Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020
Westbrook	2.24	2.01	1.71	1.72	1.56	1.65	1.41

## Projections for Rate-Making Purposes (continued)

### Operating Fund:

Wastewater Westbrook	2016	2017	2018	2019	2020
<b>Revenue:</b>	<b>Budget</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>
Assessment Income	\$2,533,176	\$2,659,835	\$2,792,827	\$2,932,468	\$3,225,715
Other Income	128,900	128,900	128,900	128,900	128,900
Interest Income	21,356	21,356	21,356	21,356	21,356
Total Revenue	2,683,432	2,810,091	2,943,083	3,082,724	3,375,971
<b>Expense:</b>					
Contracted Svcs	133,801	137,146	141,946	146,914	152,056
Salaries/Wages	244,849	249,746	254,741	259,836	265,033
Employee Benefits	128,167	134,575	141,304	148,369	155,787
Purchased Power	184,683	184,683	191,147	197,837	204,761
Biosolids Disposal	274,691	281,558	291,413	301,612	312,168
Transportation	11,449	11,735	12,146	12,571	13,011
Chemicals	58,484	59,946	62,044	64,216	66,464
Materials/Supplies	40,477	41,489	42,941	44,444	46,000
Heat/Fuel Oil	22,330	22,888	23,689	24,518	25,376
Tele/Oth Utilities	14,332	14,690	15,204	15,736	16,287
Insurance	5,930	6,078	6,291	6,511	6,739
Other Expense	18,917	19,030	19,192	19,360	19,534
Administration	315,293	323,175	331,254	339,535	348,023
Engineering Services	99,520	97,608	100,048	102,549	105,113
Environmental Services	95,200	97,580	100,020	102,521	105,084
Wastewater Services	174,451	178,812	183,282	187,864	192,561
Water Services	8,425	8,636	8,852	9,073	9,300
Capital:					
Debt Service	498,441	547,064	651,537	666,133	943,798
Renewal & Replacement	438,736	438,736	438,736	438,736	438,736
Total Expense	2,768,176	2,855,175	3,015,787	3,088,335	3,425,831
Annual Surplus (Deficit)	-84,744	-45,084	-72,704	-5,611	-49,860
Transfer to R&R					
Carryforward Surplus	1,495,024	1,410,280	1,365,196	1,292,492	1,286,881
Period Ending Surplus	1,410,280	1,365,196	1,292,492	1,286,881	1,237,021
Target	692,044	713,794	753,947	772,084	856,458
Above Target	\$718,236	\$651,402	\$538,545	\$514,797	\$380,563

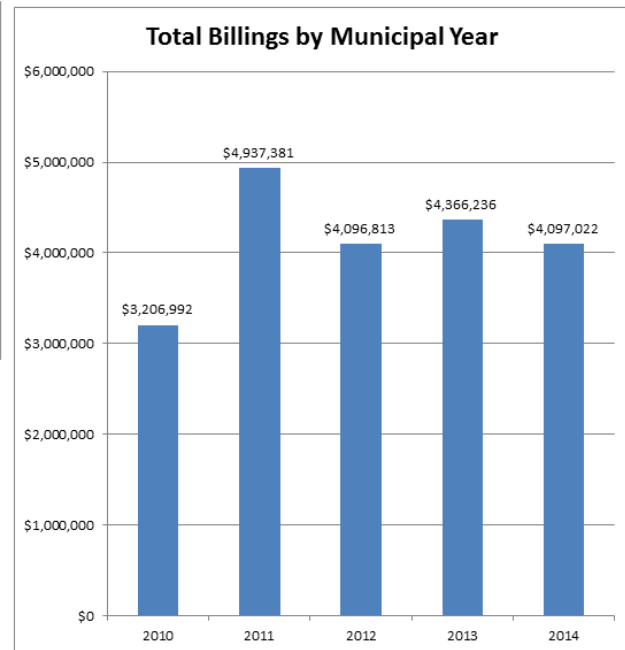
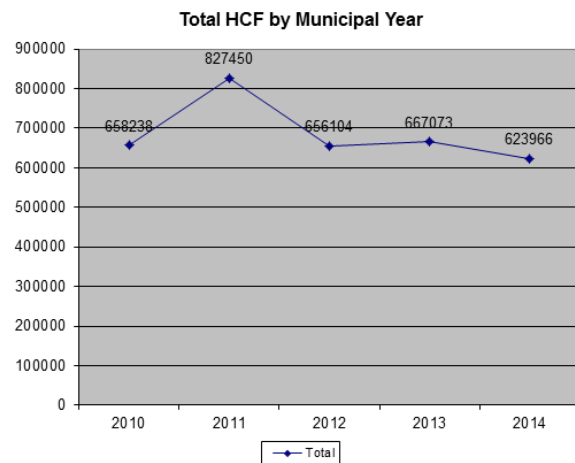
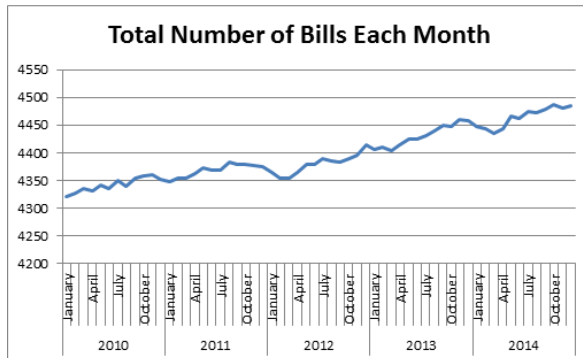
**Capital Expenditures:** (See details in the Capital Expenditure section) Target Balance: \$606,000

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2016	1,652,850	\$407,904	666,000	935,292	1,791,462
2017	1,791,462	\$407,904	1,275,000	1,356,707	2,117,659
2018	2,117,659	\$407,904	0	493,250	2,032,313
2019	2,032,313	\$407,904	3,200,000	3,349,860	2,290,357
2020	2,290,357	\$407,904	0	442,900	2,255,361

## Sewer Billing Statistics

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

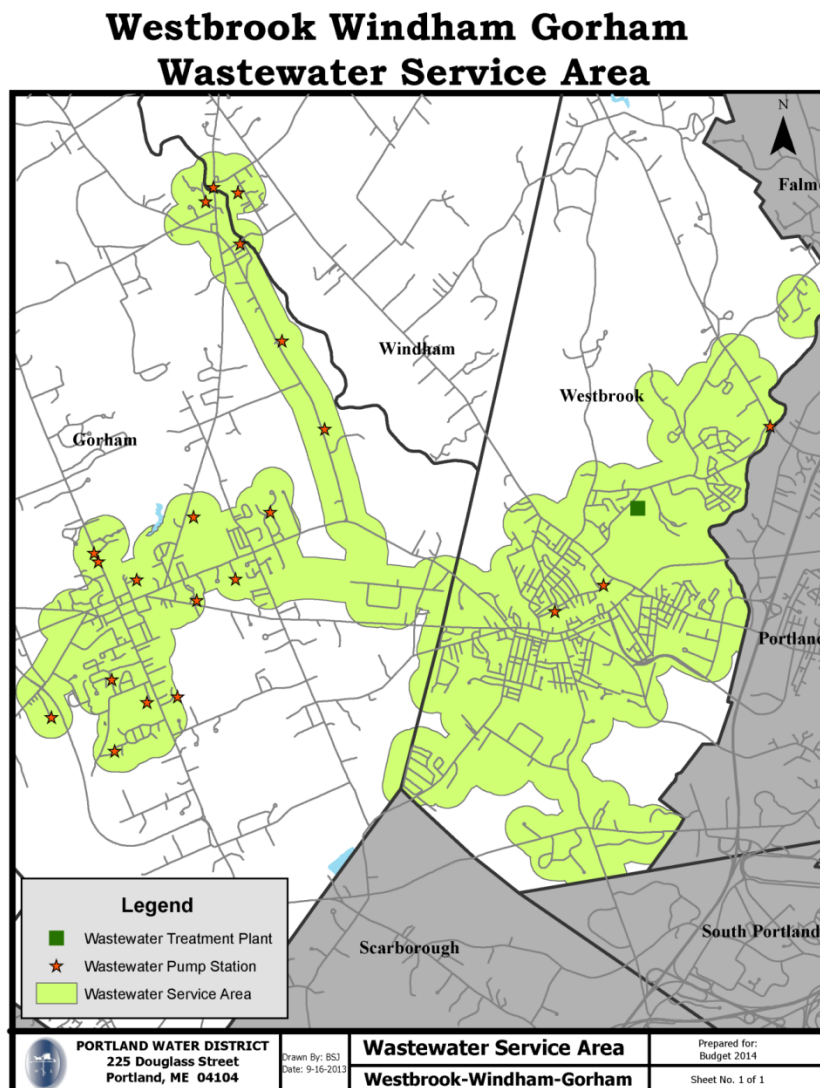
( By Municipal Fiscal Year)



## 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 8.0 miles of pipe*

#### ***Utility Billing***

*Annual Billings of  
\$330,360 on 51  
Customers*

## Fund: Wastewater - Windham

### 2016 Financial Summary

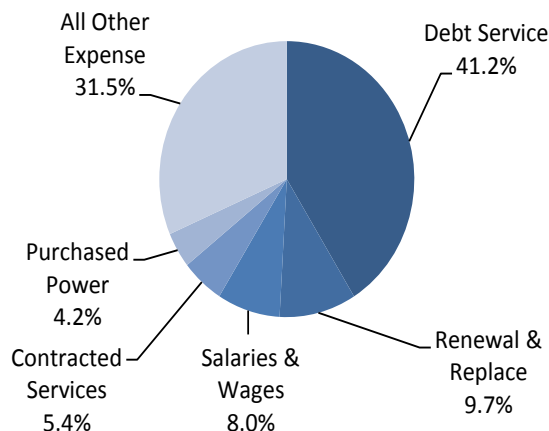
No increase in the town's assessment is proposed (\$351,756).

The proposed 2016 Operating Expense and Capital budgets are \$365,527 and \$77,612, respectively.

The rise in Operating Expense (2.7%) can be attributed mostly to the increase in Windham flows at the Westbrook Region WWTF from 2.3% to 3.0%.

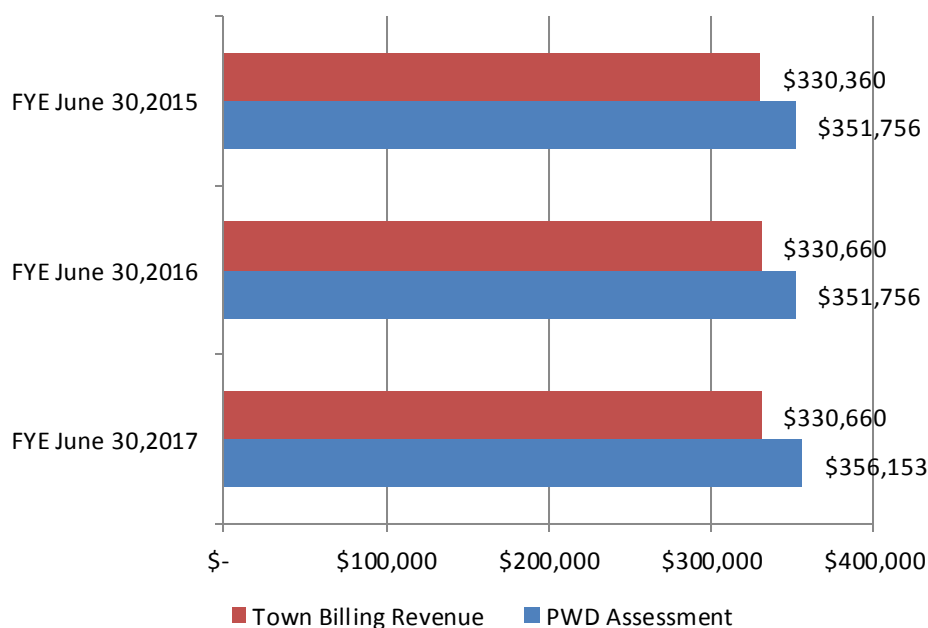
The Capital projects in 2016 include the continuation of upgrades at the regional wastewater treatment plant of the Sludge Dewatering upgrades. This work will be funded by renewal and replacement funds and bonds.

### 2016 Operating Expense



### 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, 2015

- Rates Assumed:

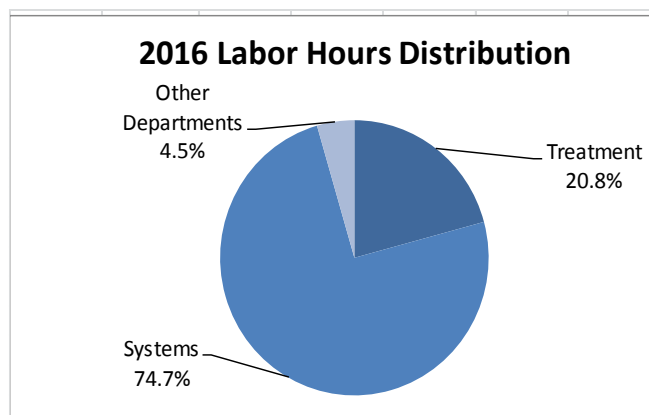
Effective Date:	Base/Per HCF
April 2009	\$48.84/\$3.24

No change since 4/1/2009

## 2016 Operating Expense Highlights

**Salaries/Wages** – Wages were budgeted to decrease 0.7% (\$199). District labor rates increased an average of 2.0% but this was offset by the 2.9% (36 hour) decrease hours budgeted. A total of 1,215 hours (0.58 full time equivalents) were budgeted for 2016.

**Employee Benefits** – Benefits, which are charged as a percentage of regular wages, increased 1.2% (\$177) to a total of \$15,173. The benefit rate increased 1.9% due to increases in pension costs.



**Biosolids Disposal** – The budget assumed the volume of wet tons disposed would increase by 3.1% offset by an estimated 2.1% decrease in the disposal cost per ton rate. The net increase in the costs of disposal at the Westbrook Regional WWTF was 1.0%. However, due to an increase in flows, Windham's share of treatment costs increased from 2.3% in 2015 to 3.0% in 2016. The result was a 31.7% (\$2,419) increase in expense.

**Chemicals** – Chemical costs at the Westbrook Regional WWTF were down. The budget in Windham increased \$98 (4.8%) due to the increase in flows.

**Contracted Services** – The budget for this item increased \$1,636 (9.0%). Increases in the snow removal budget were somewhat offset by a decrease in the CCTV (sewer line inspection) budget. The joint flow increase also impacts this line.

**Purchased Power** – The budget rose due to the increased percentage of total flows (from 2.3% to 3.0%) at the Westbrook treatment plant. This item increased 11.2% or \$1,545.

**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 decreased 7.8% (\$4,801). Engineering Services increased in large part due to the creation of a new SCADA Specialist position. The increase in Wastewater Services and Engineering Services was mostly due to the flow percentage increase.

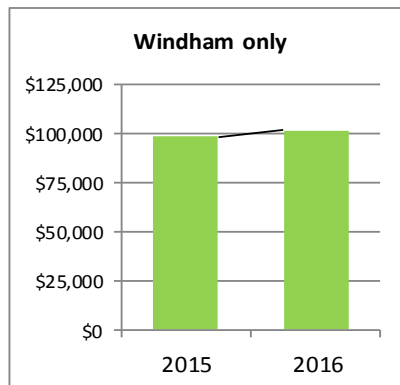
**Debt Service** - The annual principal and interest payments on bonds issued to finance capital projects. This item decreased 1.4% (\$2,117) as older bond issues were retired.

**Renewal & Replacement** - Dollars put aside to fund capital projects. A contribution of \$35,614 will be made in 2016.

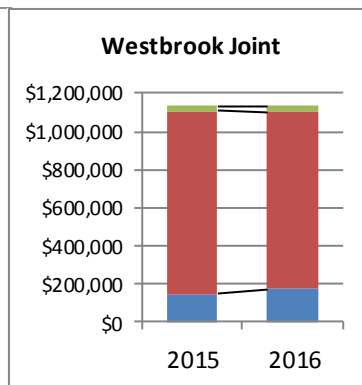


	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$351,756	\$175,878	\$351,756	\$351,756	\$0	0.0%
Interest Income	1,121	1,064	1,125	1,972	847	75.3%
<u>Other Income</u>	<u>3,190</u>	<u>658</u>	<u>3,090</u>	<u>3,200</u>	<u>110</u>	<u>3.6%</u>
Total Revenue	356,067	177,600	355,971	356,928	957	0.3%
Salaries & Wages	22,083	11,731	29,343	29,144	-199	-0.7%
Employee Benefits	10,748	6,345	14,996	15,173	177	1.2%
Biosolids Disposal	7,565	3,829	7,631	10,050	2,419	31.7%
Chemicals	1,628	712	2,029	2,127	98	4.8%
Contracted Services	9,389	6,004	18,192	19,828	1,636	9.0%
Heat/Fuel Oil	1,696	1,602	1,710	1,794	84	4.9%
Insurance	839	397	846	805	-41	-4.8%
Materials & Supplies	6,572	7,182	5,221	5,925	704	13.5%
Other Expense	112	117	136	161	25	18.4%
Purchased Power	14,029	7,603	13,755	15,300	1,545	11.2%
Tele/Other Utilities	314	111	331	453	122	36.9%
Transportation	8,405	4,494	11,829	12,151	322	2.7%
SS - Administration	33,862	16,810	35,170	35,278	108	0.3%
SS - Engineering Services	8,159	4,039	12,051	13,649	1,598	13.3%
SS - Environmental Services	2,062	998	2,087	2,732	645	30.9%
SS - Wastewater Services	11,215	6,684	12,301	14,707	2,406	19.6%
<u>SS - Water Services</u>	<u>112</u>	<u>60</u>	<u>145</u>	<u>189</u>	<u>44</u>	<u>30.3%</u>
Departmental Expense	138,790	78,718	167,773	179,466	11,693	7.0%
Debt Service	154,770	74,075	152,564	150,447	-2,117	-1.4%
Renewal & Replace - Indirect	3,057	1,473	2,947	2,927	-20	-0.7%
<u>Renewal &amp; Replacement - Direct</u>	<u>32,015</u>	<u>16,343</u>	<u>32,687</u>	<u>32,687</u>	<u>0</u>	<u>0.0%</u>
Operating Expense	328,632	170,609	355,971	365,527	9,556	2.7%
Current Year Surplus (Deficit)	27,435	6,991	0	-8,599		
Transfer to R&R	-27,435	0	0	0		
<u>Prior Year Surplus</u>	<u>171,168</u>	<u>171,168</u>	<u>191,335</u>	<u>183,332</u>		
Accumulated Surplus	171,168	178,159	191,335	174,733		

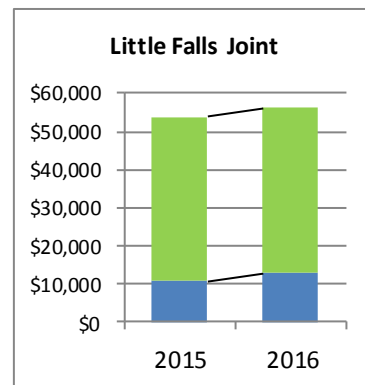
Note: In the graph's below, Windham's numbers are in green.



**Windham Only** – Expense Up \$3.2k (1.9%).



**WestbrookJT** – Costs flat, Windham % up 2.3% to 3.0%



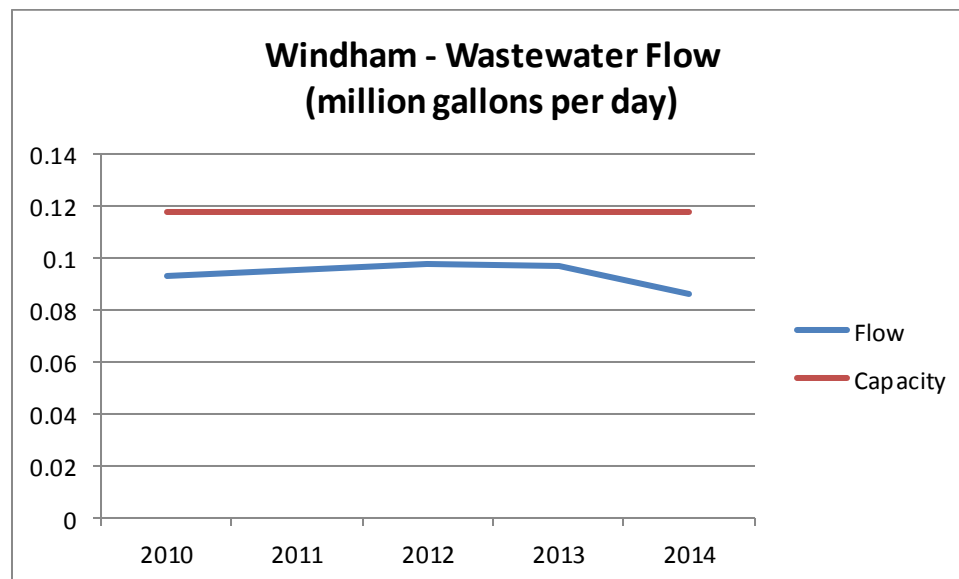
**Little Falls JT** – Up \$2.5k, Windham% down (80% to 77.5%).

## Operation Summary

### Wastewater Treatment

Wastewater generated within the Town of Windham, including the Maine Correctional Center and the Little Falls area of Gorham, was 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	2014 Windham Flow	Westbrook WWTF Flow	% Windham Share
Windham	85,918 gal/day	2,945,342 gal/day	3.0 %
WGWWTF Capacity	Windham Capacity (2.6%)	% Capacity Used	Capacity Remaining
4,540,000 gal/day	118,040 gal/day	72.8 %	32,122 gal/day



### Wastewater Conveyance – collectors, interceptors and pumping stations

Parameter	2015 Actual to Sep.	2016 Projected
Preventative Work Orders	31	25
Corrective Work Orders	4	5
Wet wells cleaned	13	15
Debris removed (tons)	13	15
Dry Weather Overflows	1	0

## Operation Summary (continued)

### 2015 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 failed was scheduled to be replaced in October 2015.

### 2016 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.
- The Routine Renewal and Replacement capital account will be used to address any unanticipated equipment issues.

**Sludge Dewatering Upgrades** – 2015 the district piloted KFC screw press. In 2016, either the screw or rotary press will be installed in 2016.



## 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 \$351,756 from the annual assessment in 2016.

The planned projects are listed below:

**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).

**Regional Treatment Plant R&R – 416:** Routine and equipment renewal and replacements (\$50,000) as well as LED lighting upgrades (\$12,000) will be financed through the renewal and replacement fund. Windham will pay a prorated share of the costs (\$3,720).

**Windham System Pumping R&R – 180:** Routine and equipment renewal and replacements (\$20,000) and an upgrade to the Androscoggin pump station (\$30,000) will be financed through the renewal and replacement fund. Windham pays 100% of Windham only projects.

Capital Fund:	2014 Actual	2015 Projected	2016 Budget
Beginning of Year Fund Balance	\$188,220	\$239,378	\$201,970
<b>Source of Funds:</b>			
Bond Proceeds - prior year			
Bond Proceeds - current year	-	-	26,000
Renewal and Replacement Contribution	32,015	32,687	32,687
Operating Surplus Transfer	27,435	-	-
Capital Funding	59,450	32,687	58,687
<b>Capital Expenditures:</b>			
SCADA / Process Controls R&R (prorated) - 177	2,426	930	
Treatment Plant Sludge Dewatering (prorated) – 167		-	26,000
Treatment Plant Flow Splitting Project (prorated) – 167		6,825	
Treatment Plant R&R (prorated) – 416		2,340	1,612
Windham Systems Pumping R&R - 180	5,770	60,000	50,000
Laboratory Equipment R&R (prorated) – 95	95	-	-
Capital Expenditures	8,291	70,095	77,612
End of Year Fund Balance	239,378	201,970	183,045

## 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:

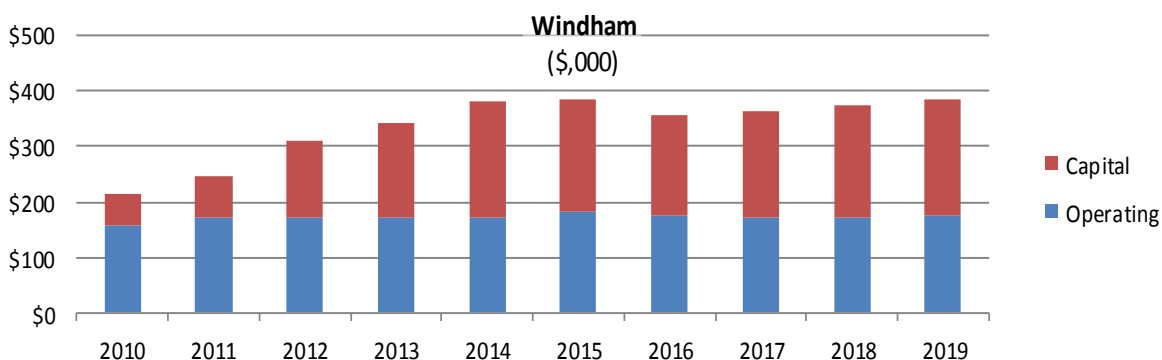
The assumptions incorporated in the projections are as follows:

- Salary increases of 2% each year. Maintain same number of employees.
- Benefit increases of 5% each year. Assumed pension contribution increased to \$1.2 million a year in 2016 and health insurance increases 7% per year.
- Other expenses increase by 2.5% in 2016-2017 and 3.5% in subsequent years.
- New debt service and renewal/replacement fund expenditures consistent with the 2016 5-year capital plan (new debt assumed a 20 year life at 5%). The most significant project is the \$1.0 million sludge dewatering upgrade at the Westbrook Regional Treatment Facility.

### Summary

Assessment is projected to increase to \$382,618 by 2020, a 8% increase. 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.

#### Reserve Fund Balances



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

Funds	2014	2015	2016	2017	2018	2019	2020
Windham	47%	43%	41%	41%	40%	39%	38%

#### Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020
Windham	1.40	1.23	1.18	1.21	1.24	1.28	1.31

## Projections for Rate-Making Purposes (continued)

### Operating Fund:

Wastewater Windham	2016	2017	2018	2019	2020
<b>Revenue:</b>	<b>Budget</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>
Assessment Income	\$351,756	\$360,550	\$367,761	\$375,116	\$382,618
Other Income	3,200	3,200	3,200	3,200	3,200
Interest Income	1,972	1,972	1,972	1,972	1,972
Total Revenue	356,928	365,722	372,933	380,288	387,790
<b>Expense:</b>					
Contracted Srvs	19,828	20,324	21,035	21,771	22,533
Salaries/Wages	29,144	29,727	30,322	30,928	31,547
Employee Benefits	15,173	15,932	16,729	17,565	18,443
Purchased Power	15,300	15,300	15,836	16,390	16,964
Biosolids Disposal	10,050	10,301	10,662	11,035	11,421
Transportation	12,151	12,455	12,891	13,342	13,809
Chemicals	2,127	2,180	2,256	2,335	2,417
Materials/Supplies	5,925	6,073	6,286	6,506	6,734
Heat/Fuel Oil	1,794	1,839	1,903	1,970	2,039
Tele/Oth Utilities	453	464	480	497	514
Insurance	805	825	854	884	915
Other Expense	161	165	171	177	183
Administration	35,278	36,160	37,064	37,991	38,941
Engineering Services	13,649	14,290	14,647	15,013	15,388
Environmental Services	2,732	2,800	2,870	2,942	3,016
Wastewater Services	14,707	15,075	15,452	15,838	16,234
Water Services	189	194	199	204	209
Capital:					
Debt Service	150,447	150,095	147,398	144,792	142,339
Renewal & Replacement	35,614	35,614	35,614	35,614	35,614
Total Expense	365,527	369,813	372,669	375,794	379,260
Annual Surplus (Deficit)	-8,599	-4,091	264	4,494	8,530
Transfer to R&R					
Carryforward Surplus	183,332	174,733	170,642	170,906	175,400
Period Ending Surplus	174,733	170,642	170,906	175,400	183,930
Target	91,382	92,453	93,167	93,949	94,815
Above Target	\$83,351	\$78,189	\$77,739	\$81,452	\$89,115

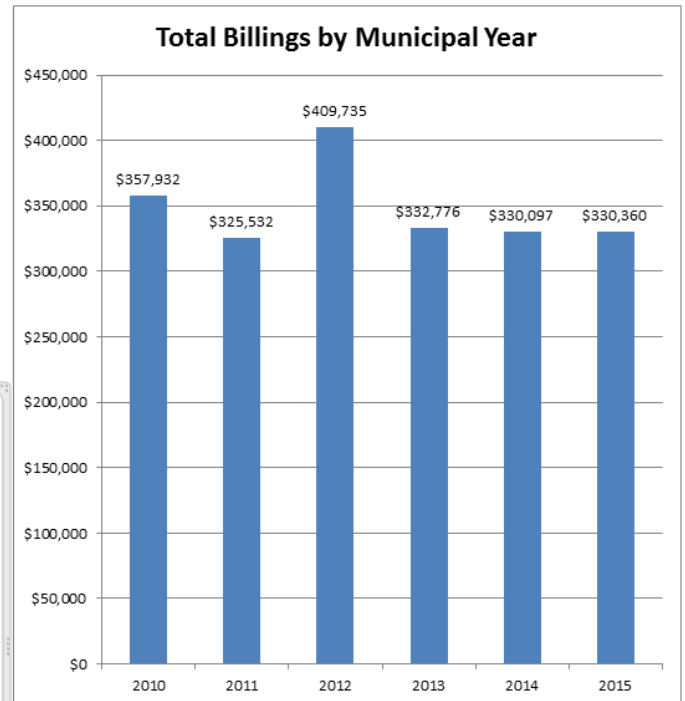
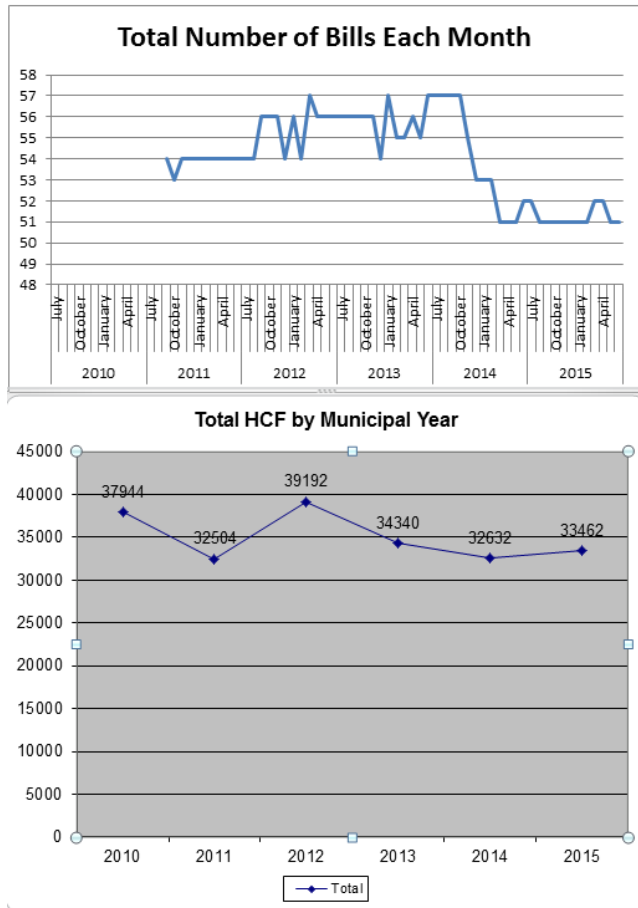
### Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$89,000

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2016	201,972	32,687	26,000	77,612	183,047
2017	183,047	32,687	0	22,799	192,935
2018	192,935	32,687	0	23,250	202,372
2019	202,372	32,687	0	25,460	209,599
2020	209,599	32,687	0	41,900	200,386

## Sewer Billing Statistics

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

( By Municipal Fiscal Year )





## **Contracted Services: Falmouth, Scarborough and South Portland**

### **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 all three municipalities, 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.

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.

### **2016 Summary**

The District is proposing the same assessment as last year for Falmouth and South Portland. We are proposing a 1.9% increase (\$204) in Scarborough.

The changes to Operating Expense were: Falmouth increasing \$250 (2.0%), Scarborough increasing \$1,283 (12.8%) and South Portland increasing \$11,057 (5.7%). Renewal & Replacement costs for meters has increased to all funds by \$100,000 to support the change out of meters that were not replaced during the meter upgrades down during 2007 to 2009. Scarborough's share of the increase is \$1,006 and South Portland's is \$7,616.

### Contracted Services: Falmouth, Scarborough and South Portland

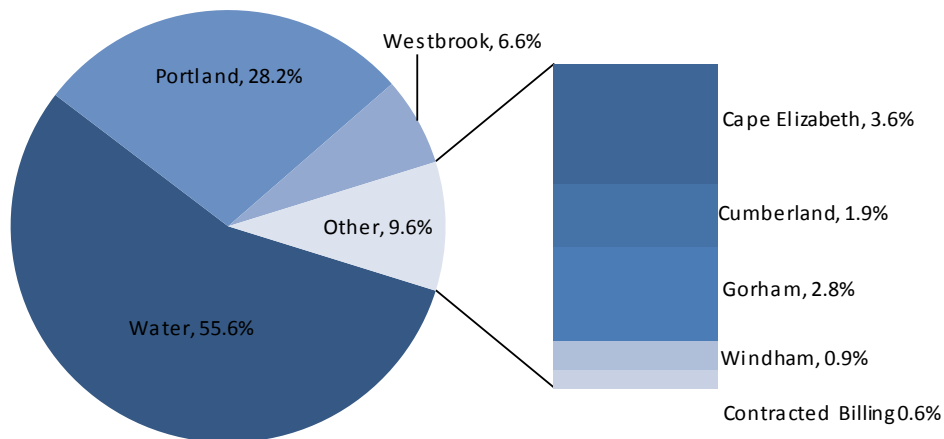
	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Contracted Billing Income	\$15,012	\$7,506	\$15,012	\$15,012	\$0	0.0%
Interest Income	<u>144</u>	<u>67</u>	<u>114</u>	<u>62</u>	<u>-52</u>	<u>-45.6%</u>
Total Revenue	15,156	7,573	15,126	15,074	-52	-0.3%
Operating Expense	11,320	6,015	12,287	12,537	250	2.0%
Current Year Surplus (Deficit)	3,836	1,558	2,839	2,537		
Return of Surplus	0	-30,000	0	0		
Prior Year Surplus	<u>31,766</u>	<u>35,602</u>	<u>35,513</u>	<u>8,506</u>		
Accumulated Surplus	35,602	7,160	38,352	11,043		
<b>Scarborough:</b>						
	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Contracted Billing Income	\$10,620	\$5,310	\$10,620	\$10,824	\$204	1.9%
Interest Income	<u>7</u>	<u>6</u>	<u>7</u>	<u>13</u>	<u>6</u>	<u>85.7%</u>
Total Revenue	10,627	5,316	10,627	10,837	210	2.0%
Operating Expense	1,785	970	1,866	2,429	563	30.2%
Debt Service	6,520	3,263	6,520	6,234	-286	-4.4%
Renewal & Replace - Indirect	<u>1,625</u>	<u>813</u>	<u>1,625</u>	<u>2,631</u>	<u>1,006</u>	<u>61.9%</u>
Total Expense	9,930	5,046	10,011	11,294	1,283	12.8%
Current Year Surplus (Deficit)	697	270	616	-457		
Prior Year Surplus	<u>3,194</u>	<u>3,891</u>	<u>3,705</u>	<u>4,437</u>		
Accumulated Surplus	3,891	4,162	4,321	3,980		
<b>South Portland:</b>						
	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Contracted Billing Income	192,384	96,192	192,384	192,384	0	0.0%
Interest Income	<u>411</u>	<u>365</u>	<u>220</u>	<u>354</u>	<u>134</u>	<u>60.9%</u>
Total Revenue	192,795	96,557	192,604	192,738	134	0.1%
Operating Expense	111,061	58,911	130,378	134,118	3,740	2.9%
Debt Service	51,925	25,867	51,746	51,447	-299	-0.6%
Renewal & Replace - Indirect	<u>12,001</u>	<u>6,061</u>	<u>12,121</u>	<u>19,737</u>	<u>7,616</u>	<u>62.8%</u>
Total Expense	174,987	90,839	194,245	205,302	11,057	5.7%
Current Year Surplus (Deficit)	17,808	5,718	-1,641	-12,564		
Return of Surplus	0	-12,000	0	0		
Prior Year Surplus	<u>89,616</u>	<u>107,424</u>	<u>104,605</u>	<u>102,559</u>		
Accumulated Surplus	107,424	101,142	102,964	89,995		

## 2016 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	Contract
Beg Balance	\$11,148,346	\$4,684,543	\$367,754	\$322,128	\$476,416	\$3,503,647	\$1,495,024	\$183,332	\$115,502
Water Revenue	22,213,173	22,213,173	-	-	-	-	-	-	-
WW Assess	17,493,300	-	1,443,408	750,072	1,106,148	11,308,740	2,533,176	351,756	-
Contract Billing	218,220	-	-	-	-	-	-	-	218,220
Interest Income	108,257	56,031	2,969	3,412	5,995	16,093	21,356	1,972	429
Other Income	515,970	265,370	-	-	18,800	99,700	128,900	3,200	-
	40,548,920	22,534,574	1,446,377	753,484	1,130,943	11,424,533	2,683,432	356,928	218,649
Depart Expense	28,106,294	15,055,976	1,134,263	710,803	632,431	8,413,272	1,830,999	179,466	149,084
Debt Service	7,756,603	4,264,479	215,731	14,752	401,657	2,153,415	498,441	150,447	57,681
Renew I & Repl	4,639,034	3,063,303	96,383	27,929	96,855	857,846	438,736	35,614	22,368
	40,501,931	22,383,758	1,446,377	753,484	1,130,943	11,424,533	2,768,176	365,527	229,133
Surplus (Deficit)	46,989	150,816	-	-	-	-	(84,744)	(8,599)	(10,484)
Xfer-Cap Resrv	(16,208)	(16,208)	-	-	-	-	-	-	-
Ending Surplus	\$11,179,127	\$4,819,151	\$367,754	\$322,128	\$476,416	\$3,503,647	\$1,410,280	\$174,733	\$105,018

Revenues by Fund 2016



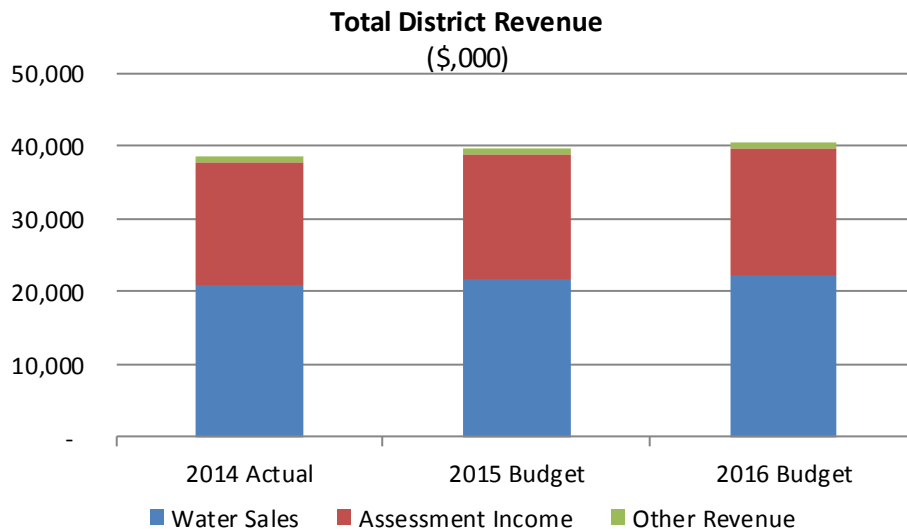
## Introduction

Revenue is obtained from two major sources: payments by individual customers for water services (Water Revenue, 54.8%) and payments from municipalities for wastewater services (Wastewater Assessments, 43.1%). Water revenues in 2016 are expected to increase 2.4% over last year's budget as a result of a proposed 3.73% rate increase to take effect in May. Wastewater Assessments increased for the Towns of Cape Elizabeth, Cumberland, and Portland to cover estimated 2016 costs.

Contracted Billing Income (0.5% of budgeted revenue) is revenue paid by the City of South Portland and Towns of Falmouth and Scarborough for wastewater billing services.

Other Water and Wastewater revenue (1.5% 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.

	2014 Actual	2015 Actual Jan-Jun	2015 Budget	2016 Budget	\$-Diff.	%-Diff.
Water Sales	\$20,738,959	\$10,238,963	\$21,690,890	\$22,213,173	\$522,283	2.4%
Assessment Income	16,972,320	8,558,142	17,116,284	17,493,300	377,016	2.2%
Contracted Billing Income	218,016	109,008	218,016	218,220	204	0.1%
Interest Income	87,245	71,631	76,236	108,257	32,021	42.0%
Other Income	563,501	231,626	526,280	515,970	(10,310)	-2.0%
<b>Total Revenues</b>	<b>\$38,580,041</b>	<b>\$19,209,370</b>	<b>\$39,627,706</b>	<b>\$40,548,920</b>	<b>\$921,214</b>	<b>2.3%</b>



## 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	\$2.19
31 HCF	100 HCF	\$1.81
101 HCF	500 HCF	\$1.60
Greater than 500 HCF		\$0.90

- **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 2016 Budget of \$22,213,173 reflects an assumed rate adjustment averaging 3.73% effective May 1, 2016 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 3.8% and 2.9% were made on May 1, 2015 and 2014, respectively. Prior to 2016, all water rate adjustments are 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 the rate change.

	2014 Actual	2015 Actual Jan-Jun	2015 Budget	2016 Budget	\$-Diff.	%-Diff.
Metered Revenue	\$18,535,487	\$9,113,315	\$19,405,220	\$19,841,639	\$436,419	2.2%
Public Fire Protection	1,227,986	626,673	1,272,849	1,320,614	47,765	3.8%
Private Fire Protection	876,736	450,595	909,500	951,920	42,420	4.7%
Other Water Revenue	98,750	48,380	103,321	99,000	(4,321)	-4.2%
Total Water Sales	\$20,738,959	\$10,238,963	\$21,690,890	\$22,213,173	\$522,283	2.4%

## Water Sales - Cost of Service Study

Every 10 years, a cost of service study is done to compare the revenue generated by each meter revenue customer class – residential, commercial, industrial and government - and fire protection categories to the costs of providing services 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.

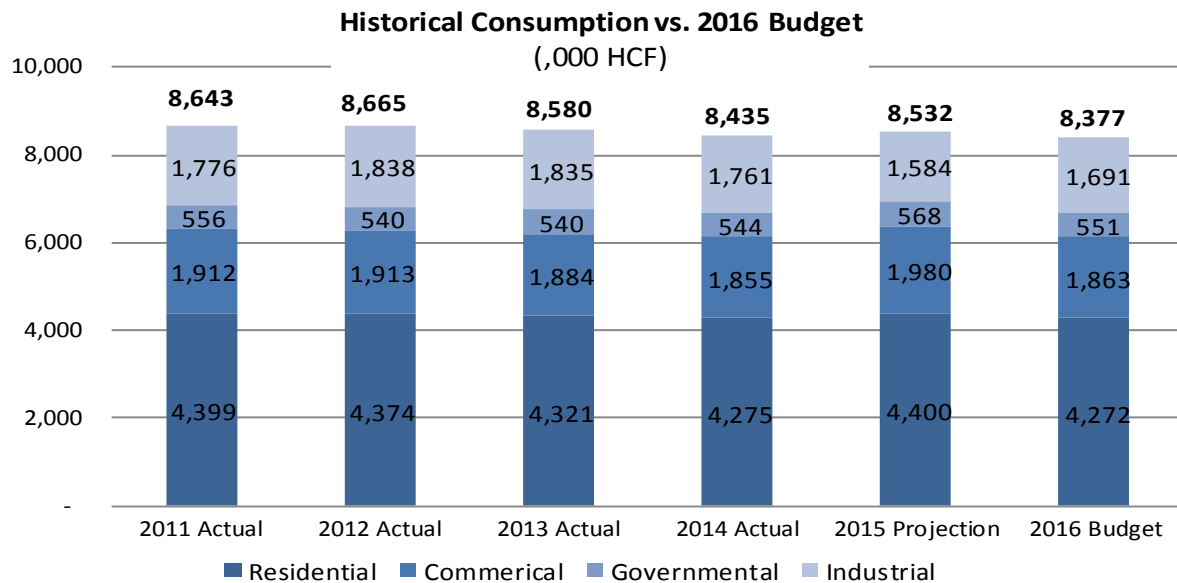
1. Costs are first assigned to various functions such as supply, treatment, pumping and distribution. The District’s accounting system readily provides this functional breakdown.
2. The functional costs are then allocated to various types of service provided by the water utility or cost components. The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

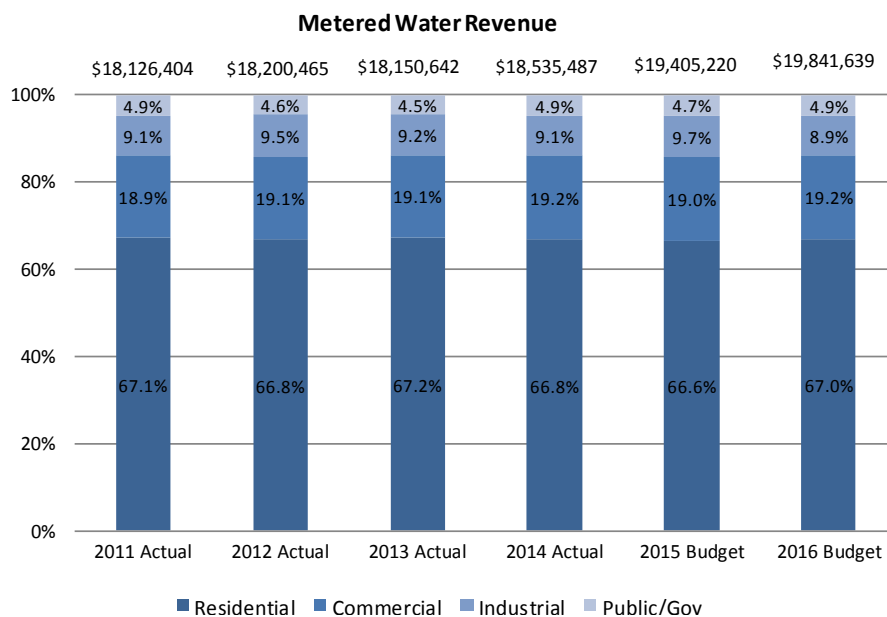
The last study was conducted in 2006. The study indicated industrial and commercial customers were not paying the full cost of service. Because the rate change needed to those customers would create rate shock and impact economic development, a policy was established to gradually increase the rates impacting 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 2016 budget includes \$20,000 to conduct a cost of service study.

## Water Sales – Metered Revenue

Metered water revenue has risen from \$18.1 million in 2011 to the budgeted amount of \$19.8 million (9.4%). 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.



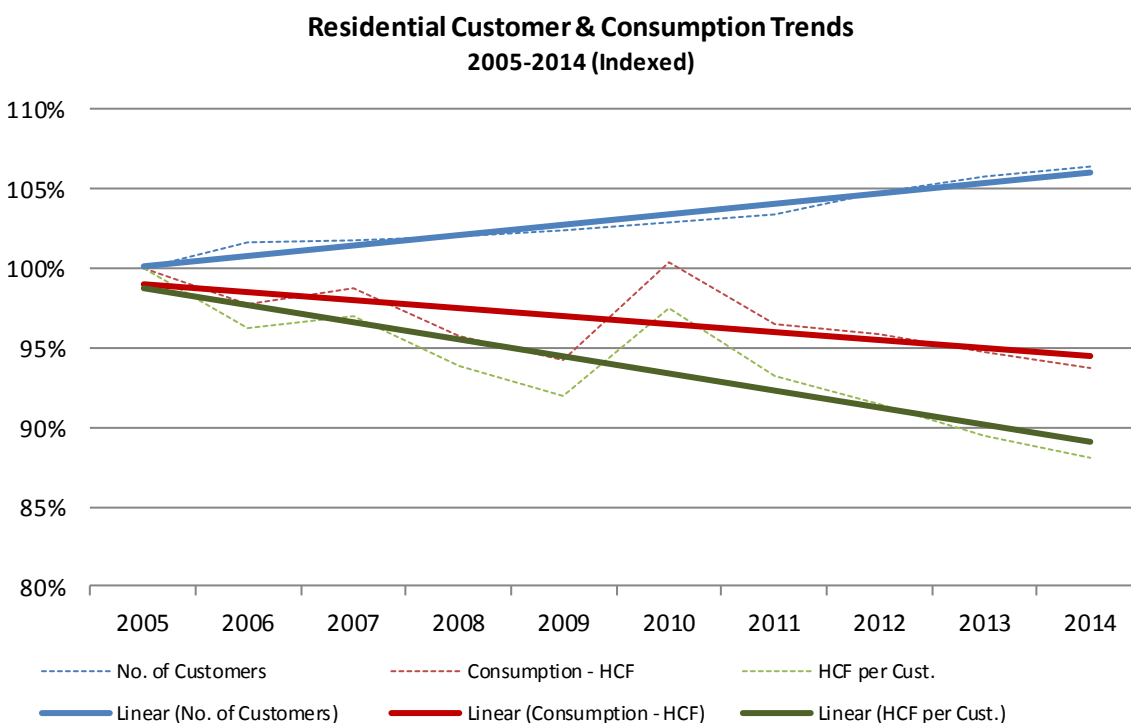


## Water Sales – Metered Revenue - Consumption

### Residential

Residential consumption makes up about 51% 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.

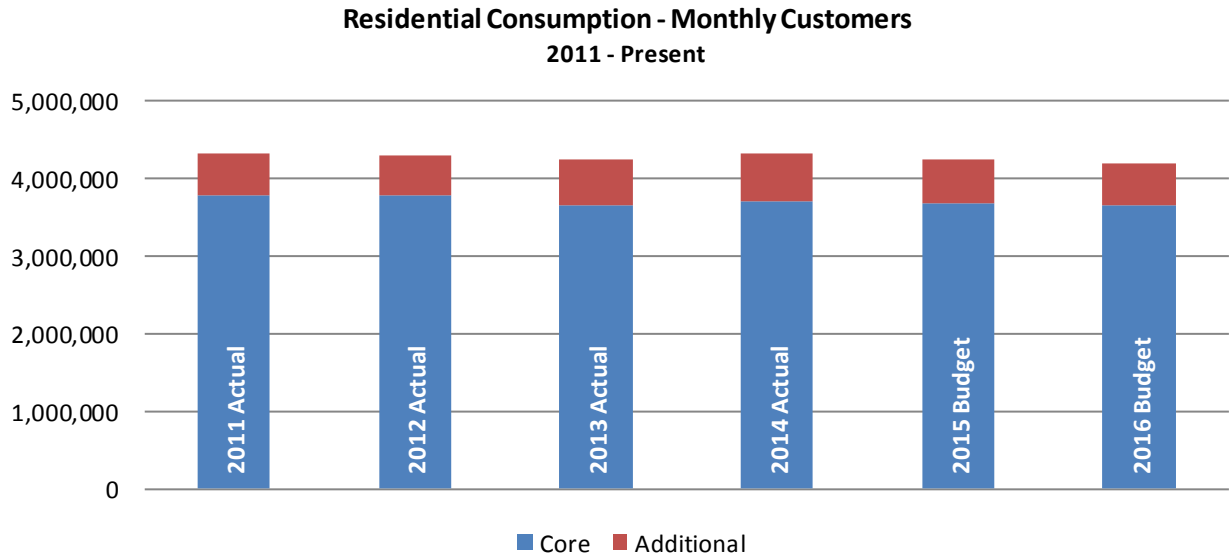


As shown above, overall consumption (red line) has declined by approximately 4% despite a 6% increase in the number of customers (blue). This is due to roughly a 10% decrease in consumption per customer (green). To incorporate the slow decline in residential consumption year over year this percentage of decline was factored into the estimated 2016 core usage.

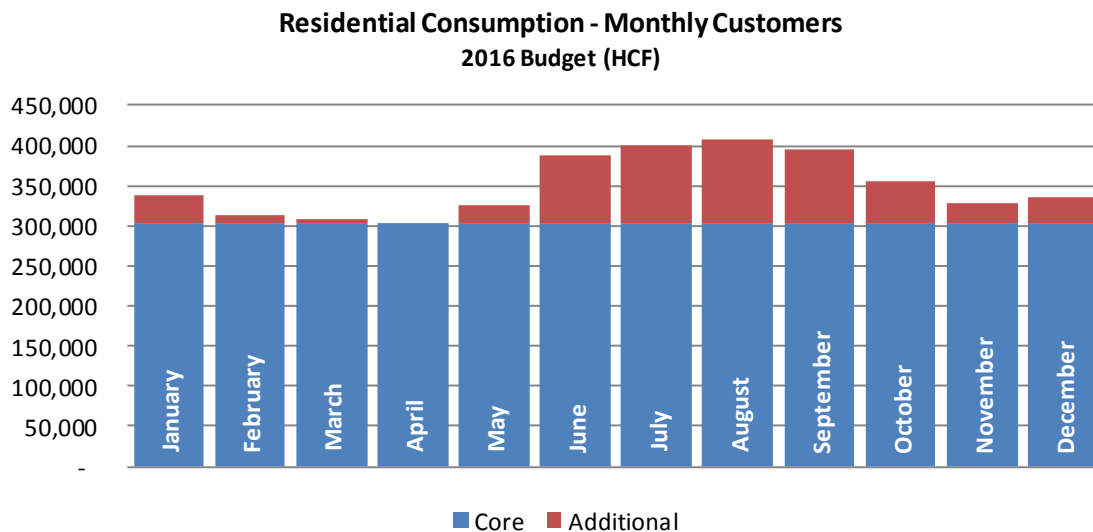
The additional usage was then determined by averaging the percentage of additional consumption over the core in the sample years. For the 2016 budget the core consumption was approximately 3.7 million hcf (hundred cubic feet) and the additional usage was 15% of the core. This falls in line with historical data.

## Water Sales – Metered Revenue - Consumption

### Residential (continued)



The monthly additional consumption was determined based on average monthly consumption from a rolling 36 month period ending July 2015 (the most current month available at the time). Two-thirds of the additional consumption is used between the months of June through September.



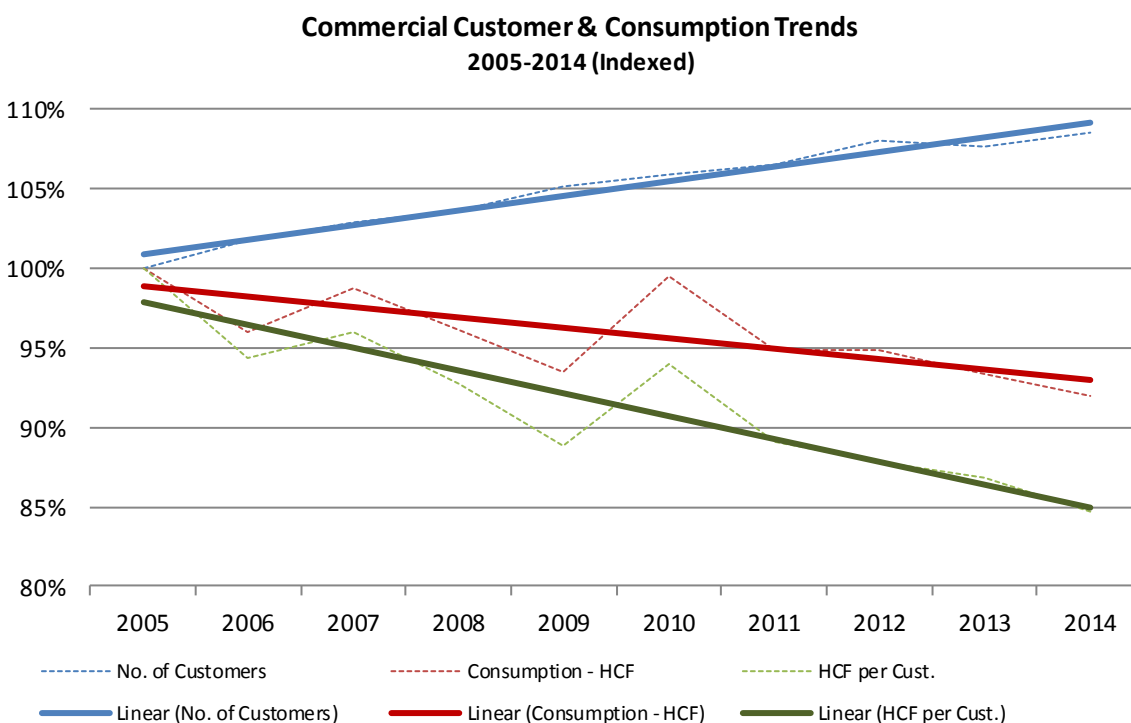
Consumption by seasonal customers makes up only 1.6% of total residential consumption. Residential seasonal consumption for the budget was based on the twelve month period from July 2014 to June 2015 and is approximately 70,000 hcf for the year.

## 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.

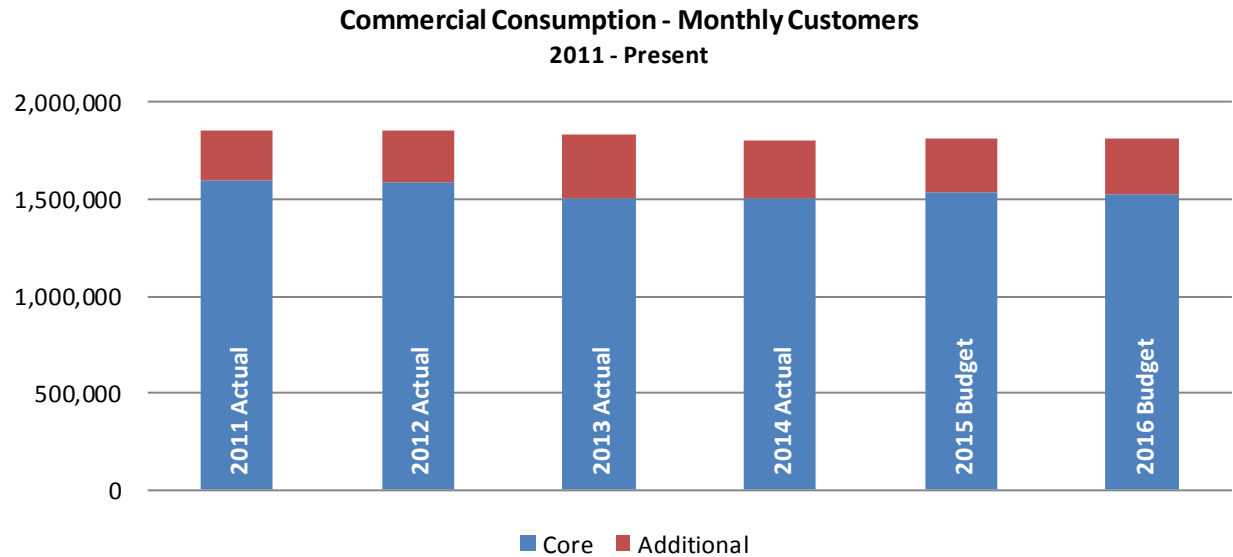
In the same manner as residential consumption, monthly customer consumption has been calculated by determining the core level of consumption, then estimating the amount of additional usage. The monthly core level was reached by taking the average of the lowest three months of each year in the sample 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.



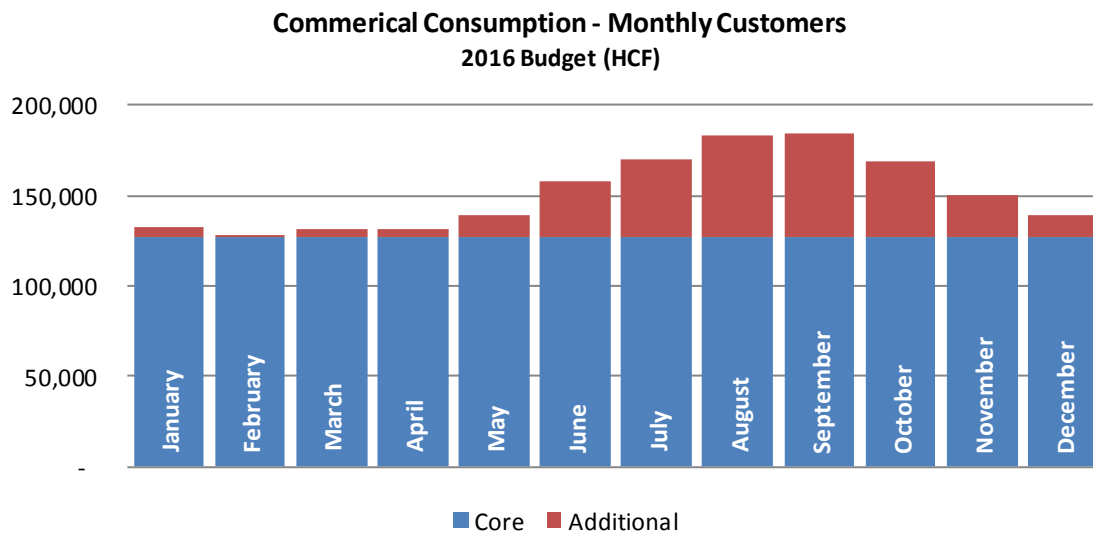
The additional usage was then determined by averaging the percentage of additional consumption over the core in the sample years. For the 2015 budget the core consumption was approximately 1.5 million hcf and the additional was 19% of the core. The variation of additional consumption (over core) has ranged between 16% 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 36 month period ending July 2015. Roughly 68% of additional consumption is used between the months of July through October.



Consumption by seasonal customers makes up only 2.5% of total commercial consumption. Commercial seasonal consumption for the budget was determined based on monthly consumption from a rolling 12 month period ending June 2015.

## **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. In forecasting Industrial consumption a rolling 12 month period ending June 2015 was used.

### **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. In 2015 low oil prices resulted in less desire for natural gas generated power. We expect this to continue in 2016.

### **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.

### **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.

### **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.

### **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. The rail line supplying the cannery with its beans is being shut down but currently the company has decided it will remain in operation and receive deliveries by truck instead.

## Water Sales – Metered Revenue - Consumption

### Public/Governmental

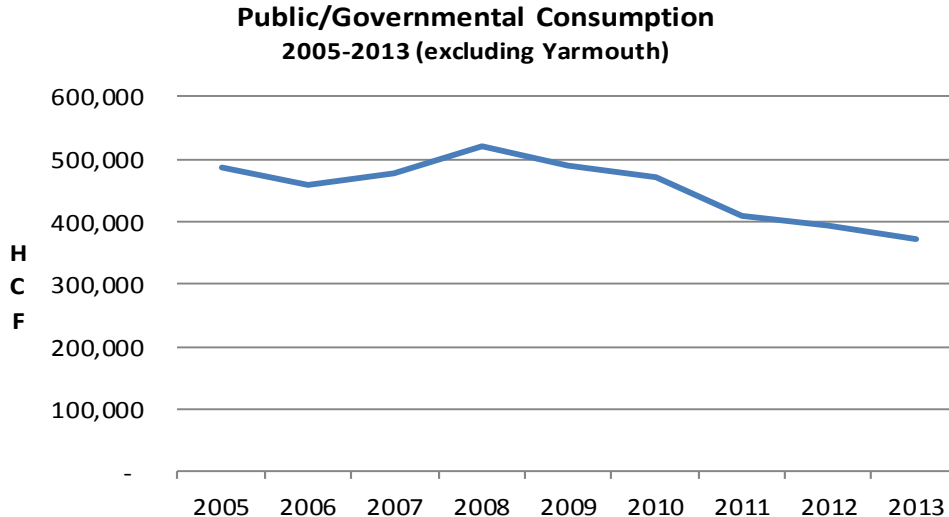
#### Yarmouth Water District

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.

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.

#### 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 most recent 12 month period.



## Water Sales – Metered Revenue - Rates

### Water Rate Schedule

A 3.73% increase is proposed to be implemented effective 5/1/2016. Board of Trustees will review and approve any rate adjustment in first quarter of 2016.

#### Current Rates: Effective 05/01/2015

Meter or Service Line Size	Member Rate	Non-member Rate
<u>Private Fire Monthly Fee</u>		
2	\$3.45	\$3.96
3	7.70	8.85
4	13.74	15.81
6	32.85	37.77
8	55.00	63.24
10	85.93	98.87
12	123.73	142.30
16	219.96	252.96
<u>Minimum Monthly Charges</u>		
5/8	\$8.74	\$10.05
3/4	10.30	11.83
1	13.36	15.39
1 1/2	22.19	25.51
2	31.96	36.73
3	57.98	66.66
4	87.27	100.36
6	168.62	193.90
8	266.23	306.17
10	385.48	443.31
12	510.28	586.81
Low income	2.19	2.53
<u>Monthly Volume Charge</u>		
First 100 Cf	minimum	minimum
Next 2,900 Cf	\$2.19	\$2.53
Next 7,000 Cf	1.81	2.08
Next 40,000 Cf	1.60	1.84
Over 50,000 Cf	0.90	1.05



## Water Sales – Metered Revenue - Rates

### Water Rate Schedule (continue)

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

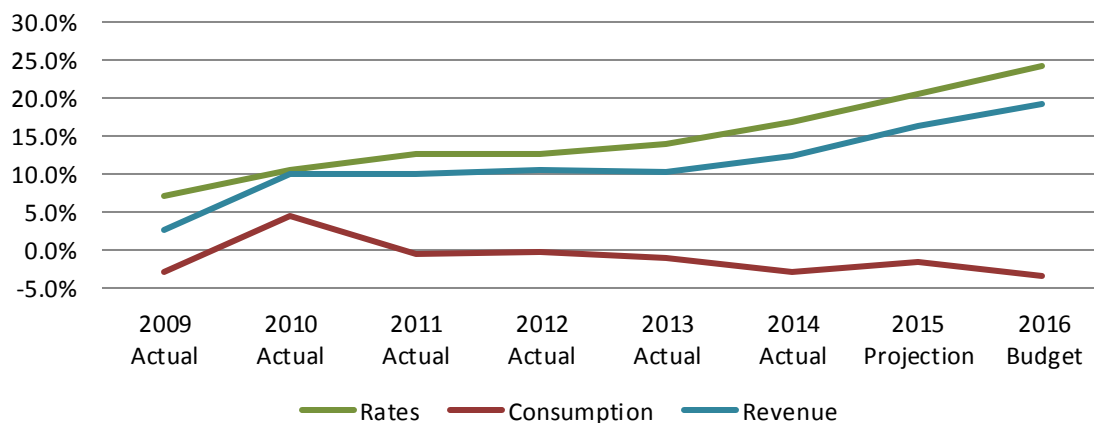
<u>Effective Date</u>	<u>Metered Rates</u>	<u>Fire Projection Rates</u>
01/01/07	3.5% increase	11.0% increase
01/01/08	3.8% increase	unchanged
01/01/09	7.0% increase	3.0% increase
05/01/10	3.6% increase	3.5% increase
05/01/11	2.0% increase	2.0% increase
05/01/13	1.3% increase	1.5% increase
05/01/14	2.9%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

\* = Proposed increase, subject to Board of Trustees and Maine Public Utility Commission approval.

<u>Typical Customer Increases</u>		<u>Current</u>	<u>Proposed 3.7%</u>	<u>\$</u>	<u>%</u>
Residential (per month)	.62" meter, 7 HCF	\$21.88	\$22.59	\$0.71	3.2%
Commercial (per month)	.75" meter, 80 HCF	164.31	171.18	6.87	4.2%
Small Industrial (per month)	2" meter, 1,300 HCF	1,582.17	1,656.08	73.91	4.7%
Large Industrial (per month)	8" meter, 56,000 HCF	51,046.44	53,319.95	2,273.51	4.5%
Sprinkler (per year)	6" meter	394.23	408.93	14.70	3.7%
Public Fire (per year)		1,288,572.00	1,336,634.00	48,062.00	3.7%
Seasonal (per year)	.62" meter	219.69	227.88	8.19	3.7%

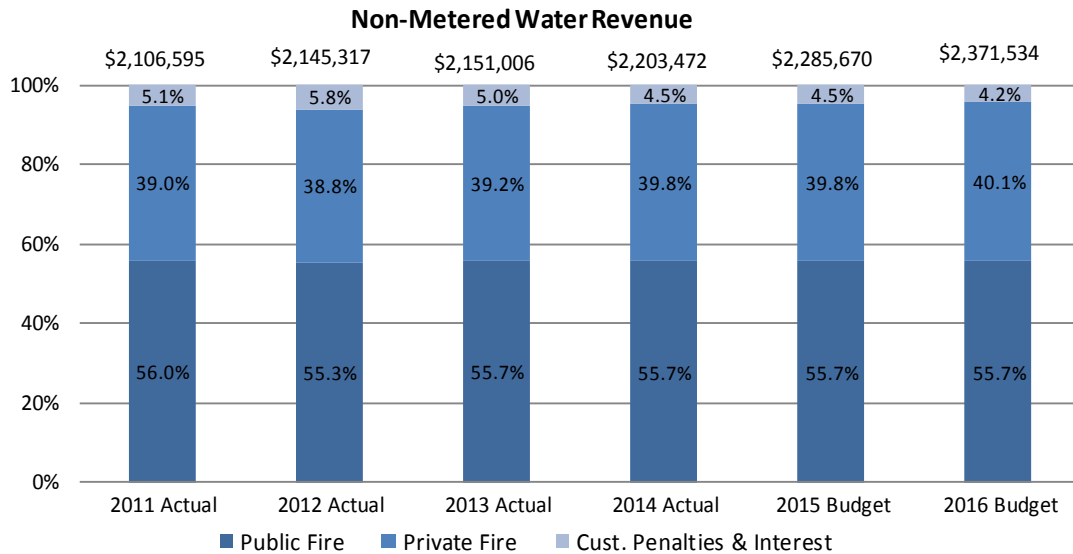
Changes in metered revenue are strongly correlated to changes in rates. There is also a relationship between metered revenue growth and changes in consumption. The graph below reflects this correlation. The revenue line runs closely to rates, while changes in its slope correspond to changes in consumption. The 2.8% increase in water revenue (2015 Projection vs. 2016 Budget) was the result of the 3.7% increase in rates and a 1.8% decrease in forecasted consumption.

**Cumulative Change in Metered Revenue**  
Metered Revenue vs. Revenue Drivers

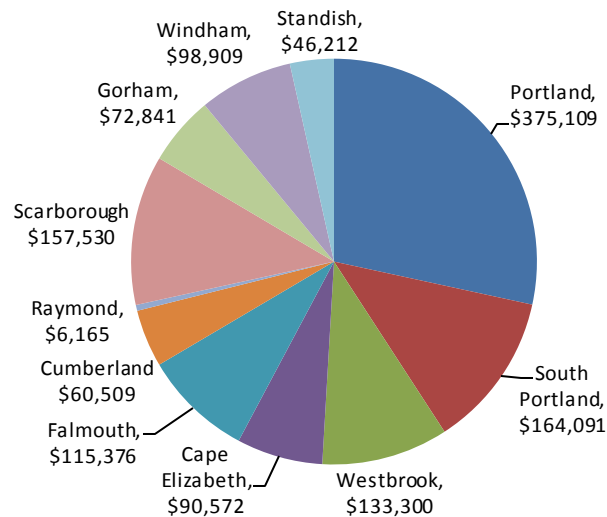


## Water Sales – Non-Metered Revenue

Non-metered water revenue has risen from \$2.1 million in 2011 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

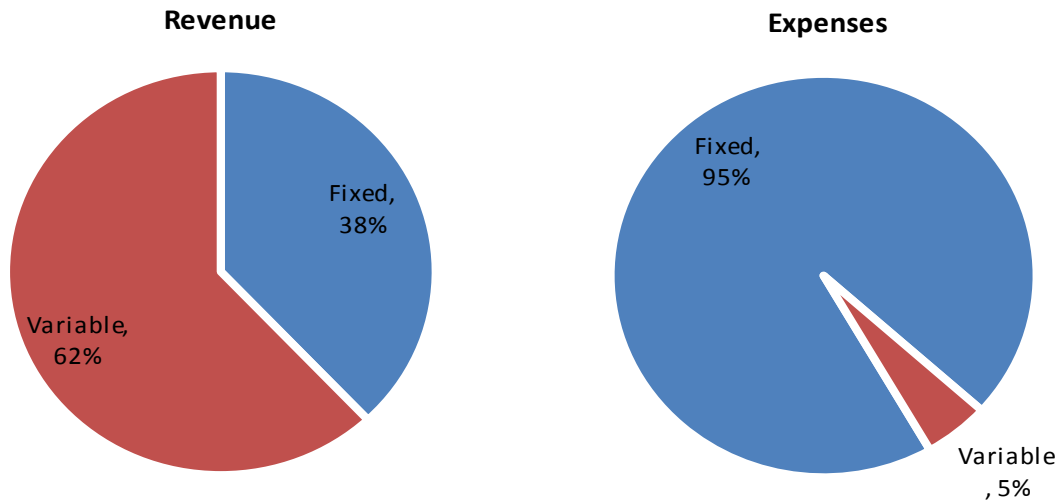
Service Line Size (inches)	Annual Fee (Proposed)	Number of Customers
2	\$ 42.89	289
3	\$ 95.87	0
4	\$ 171.07	176
6	\$ 408.93	1133
8	\$ 684.66	547
10	\$ 1,069.57	36
12	\$ 1,540.14	22
16	\$ 2,738.01	1

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.

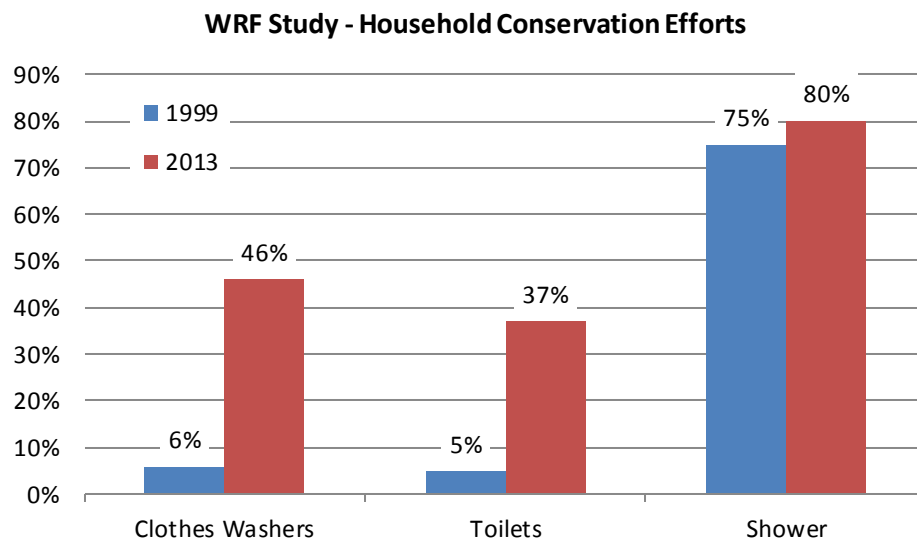
### Cost of Service Gap

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.

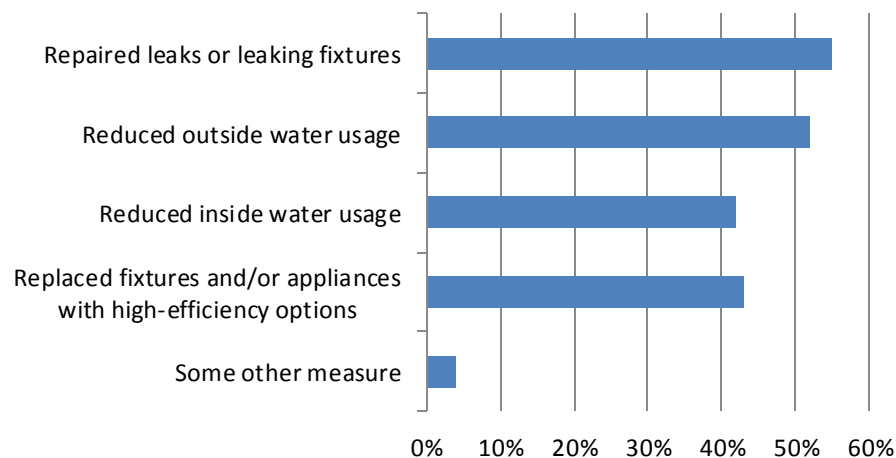
## Water Sales - Long-Term Considerations (continued)

### 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 2016, assessments for Cape Elizabeth, Cumberland and Portland were increased (see table below).

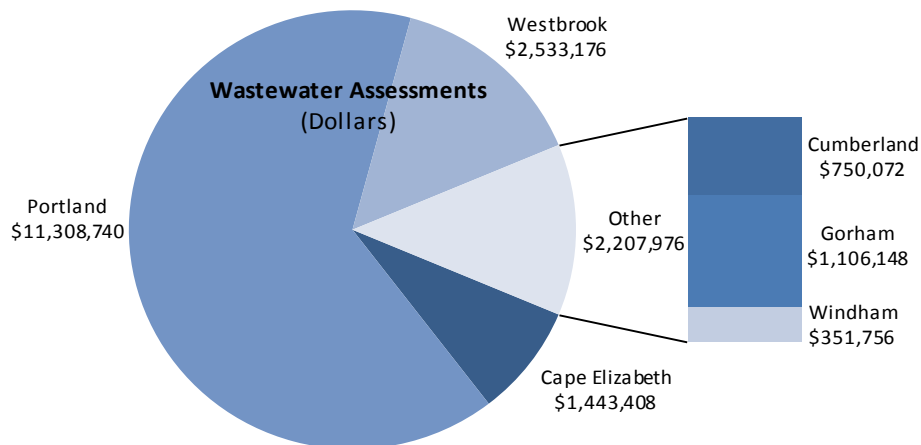
### Wastewater Assessments

	2015 Actual		2015 Budget	2016 Budget	\$-Diff.	%Diff.
	2014 Actual	Jan-Jun				
Cape Elizabeth	\$1,377,252	\$706,056	\$1,412,112	\$1,443,408	\$31,296	2.2%
Cumberland	731,784	365,892	731,784	750,072	18,288	2.5%
Gorham	1,106,148	553,074	1,106,148	1,106,148	-	0.0%
Portland	10,872,204	5,490,654	10,981,308	11,308,740	327,432	3.0%
Westbrook	2,533,176	1,226,588	2,533,176	2,533,176	-	0.0%
Windham	351,756	175,878	351,756	351,756	-	0.0%
	\$16,972,320	\$8,518,142	\$17,116,284	\$17,493,300	\$377,016	2.2%

Contracted Billing Income is revenue paid by municipalities for wastewater billing services provided. Falmouth, 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		2015 Budget	2016 Budget	\$-Diff.	%Diff.
	2014 Actual	Jan-Jun				
Falmouth	\$15,012	\$7,506	\$15,012	\$15,012	\$0	0.0%
Scarborough	10,620	5,310	10,620	10,824	204	1.9%
South Portland	192,384	96,192	192,384	192,384	-	0.0%
	\$218,016	\$109,008	\$218,016	\$218,220	\$ 204	0.1%



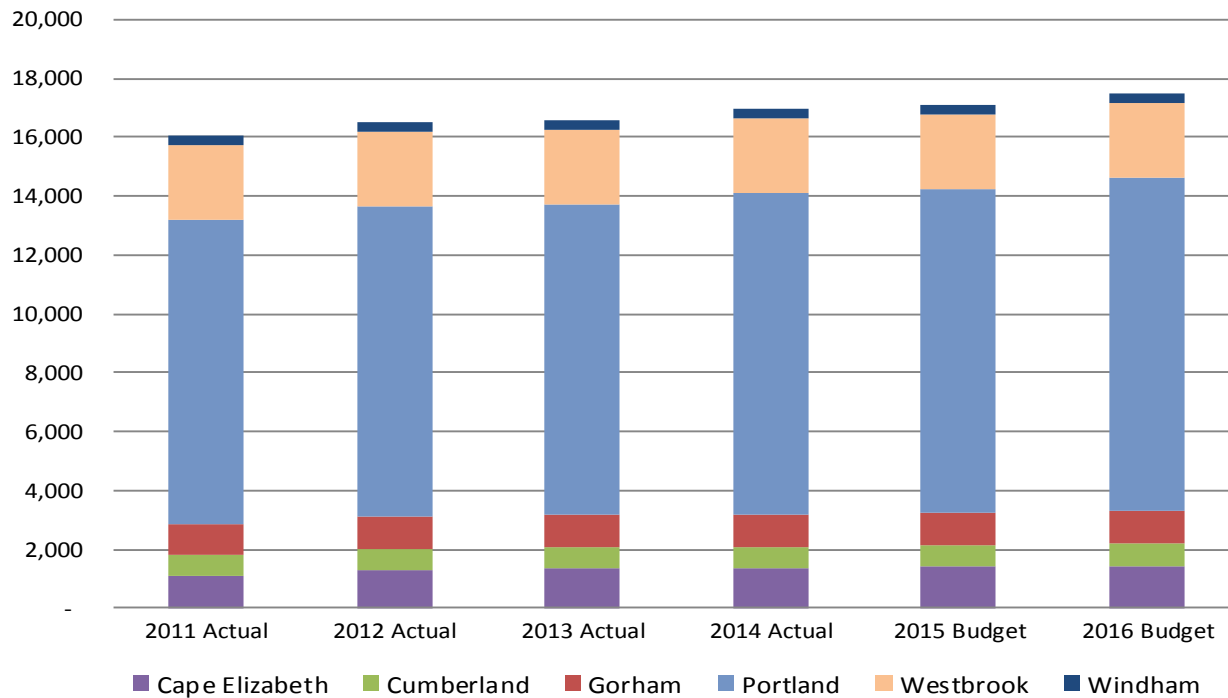
## Wastewater Assessments Revenue Trend

Wastewater assessments rose from \$16.1 million in 2011 to a budgeted \$17.5 million in 2016 (an increase of 8.7%). 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.

### Wastewater Assessments by Fund:

	Cape Elizabeth	Cumberland	Gorham	Portland	Westbrook	Windham	Total
2011 Actual	\$1,089,984	\$702,264	\$1,068,444	\$10,340,044	\$2,533,176	\$351,756	\$16,085,668
2012 Actual	1,293,540	712,800	1,084,464	10,540,044	2,533,176	351,756	16,515,780
2013 Actual	1,365,084	713,940	1,084,464	10,540,044	2,533,176	351,756	16,588,464
2014 Actual	1,377,252	731,784	1,106,148	10,872,204	2,533,176	351,756	16,972,320
2015 Budget	1,412,112	731,784	1,106,148	10,981,308	2,533,176	351,756	17,116,284
2016 Budget	1,443,408	750,072	1,106,148	11,308,740	2,533,176	351,756	17,493,300

### Assessments by Fund (2011-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 that the District provides billing services. These fees are included on the monthly bill, which includes the District's water fees. Customer remits their payment for both water and sewer fees to the District. On a weekly basis, the sewer fees are remitted to the municipalities. Once a month, the municipality pays 1/12th of the annual assessment to the District from these sewer fees.

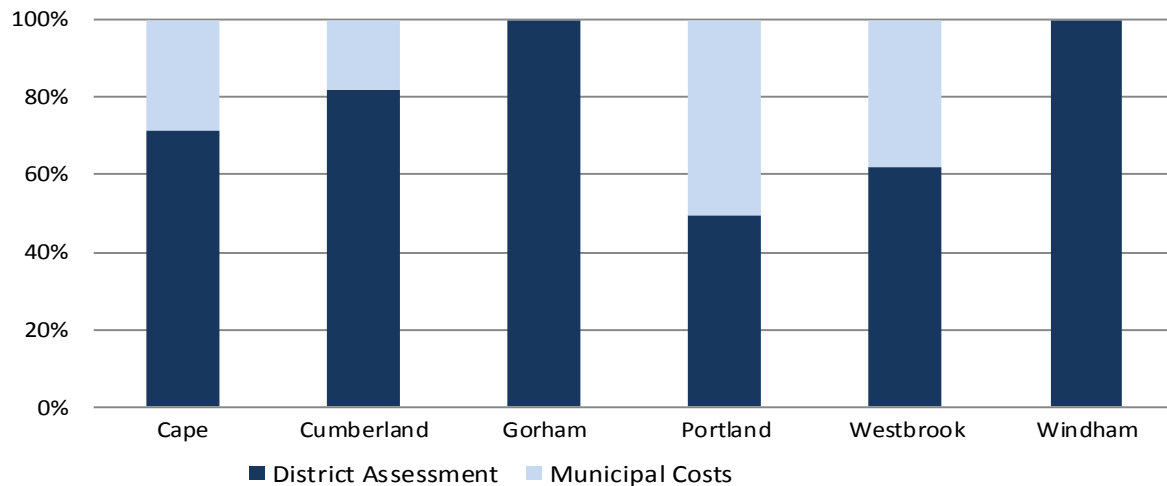
**Sewer Rates Effective 10/01/2015**

	Minimum HCF	Minimum Charge	Additional HCF
Portland	1	\$9.70	\$9.70
Cumberland	0	35.58	5.29
South Portland	1	4.80	4.80
Cape Elizabeth	1	46.00	5.41
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 2014 that the municipalities used to pay the District's assessment and their internal costs. In 2014, Gorham's and Windham's sewer fees were less than District's assessment by \$34,000 and \$25,000, respectively. The shortfall was covered by the town's prior year surplus or general fund appropriation.

**Municipal Sewer Fees Collected in 2014**





## 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 0.43% and is based on a cash and investment balance of \$23.5 million. The rate of return for the 2016 Budget is an increase from the prior year budgeted rate as well as the actual rate from 2014.

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 \$7,128 from that loan in 2016.

	2014 Actual	2015 Actual Jan-Jun	2015 Budget	2016 Budget	\$-Diff.	%-Diff.
<b>Water Fund</b>	\$39,869	\$31,350	\$34,391	\$56,031	\$21,640	62.9%
<b>Wastewater Operating Funds:</b>						
Cape Elizabeth	2,148	1,671	1,988	2,969	981	49.3%
Cumberland	2,193	1,789	1,911	3,412	1,501	78.5%
Gorham	3,278	3,122	3,425	5,995	2,570	75.0%
Portland	20,945	16,663	17,186	16,093	(1,093)	-6.4%
Westbrook	17,129	15,532	15,870	21,356	5,486	34.6%
Windham	<u>1,121</u>	<u>1,064</u>	<u>1,125</u>	<u>1,972</u>	<u>847</u>	<u>75.3%</u>
	46,814	39,841	41,504	51,797	10,293	24.8%
<b>Contracted Billing:</b>						
Falmouth	144	67	114	62	(52)	-45.6%
Scarborough	7	6	7	13	6	85.7%
South Portland	<u>411</u>	<u>365</u>	<u>220</u>	<u>354</u>	<u>134</u>	<u>60.9%</u>
	562	438	341	429	88	25.8%
<b>Total</b>	\$ 87,245	\$ 71,631	\$ 76,236	\$ 108,257	\$ 32,021	42.0%

## Other Income

Other revenues consists 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.

476416-417084

Water Fund:	2014 Actual	2015 Actual Jan-Jun	2015 Budget	2016 Budget	\$-Diff.	%-Diff.
Cross Connection Fees	\$36,832	\$24,024	\$26,900	\$26,900	\$0	0.0%
Customer Connection Fees	84,722	39,669	90,180	90,180	-	0.0%
Customer Activation Fee	67,590	27,524	65,090	65,090	-	0.0%
Jobbing Surcharge	35,417	66,439	54,360	54,360	-	0.0%
Miscellaneous Income	56,206	4,280	28,840	28,840	-	0.0%
Total Water Division	\$280,767	\$161,936	\$265,370	\$265,370	\$0	0.0%

Wastewater Funds:	2014 Actual	2015 Actual Jan-Jun	2015 Budget	2016 Budget	\$-Diff.	%-Diff.
Septage - Gorham	\$18,781	\$3,717	\$18,810	\$18,800	(\$10)	-0.1%
Septage - Portland	111,970	38,953	96,950	99,700	2,750	2.8%
Septage - Westbrook	118,297	26,361	112,460	99,300	(13,160)	-11.7%
Septage - Windham	3,190	658	3,090	3,200	110	3.6%
Miscellaneous Income	30,496	-	29,600	29,600	-	n/a
Total Wastewater Division	282,734	69,689	260,910	250,600	(10,310)	-4.0%
Total Water & Wastewater	\$563,501	\$231,626	\$526,280	\$515,970	-\$10,310	-2.0%

## 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 are provide 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 2016 Budget	Prior Year 2016 Projection	2017 Projection	2018 Projection	2019 Projection	2020 Projection
Water	\$ 22,213,173 3.7%	\$ 22,775,435 5.0%	\$ 23,323,832 5.0%	\$ 24,490,024 5.0%	\$ 25,714,525 5.0%	\$ 27,000,251 5.0%
Wastewater:						
Cape Elizabeth	1,443,408 2.2%	1,525,081 6.0%	1,537,230 6.5%	1,637,150 6.5%	1,743,565 6.5%	1,795,872 3.0%
Cumberland	750,072 2.5%	914,730 2.5%	862,583 15.0%	871,209 1.0%	879,921 1.0%	886,720 0.8%
Gorham	1,106,148 0.0%	1,106,148 3.0%	1,144,863 3.5%	1,156,312 1.0%	1,167,875 1.0%	1,179,554 1.0%
Portland	11,308,740 3.0%	11,530,373 3.5%	11,987,264 6.0%	12,586,627 5.0%	12,838,360 2.0%	13,095,127 2.0%
Westbrook	2,533,176 0.0%	2,609,171 3.0%	2,659,835 5.0%	2,792,827 5.0%	2,932,468 5.0%	3,225,715 10.0%
Windham	351,756 0.0%	351,756 0.0%	360,550 2.5%	367,761 2.0%	375,116 2.0%	382,618 2.0%
Total Wastewater	\$ 17,493,300	\$ 18,037,259	\$ 18,552,325	\$ 19,411,886	\$ 19,937,305	\$ 20,565,606

**Water Operating Fund** - The proposed 2016 water revenue budget is lower than projection done in 2014 for 2016 by \$562,262. Lower revenue was needed due to lower expected operating expenses (\$302,540) and expected contribution to Operating Reserves (\$238,082). The projection incorporates the estimated decrease in consumption due to customer conservation efforts. The 2016 budget includes an average 3.73% increase in water rates, effective May 1, 2016 and increases of 5.0% for 2017 to 2020 are projected. The Board of Trustees will review the multi-year plan during January 2016.

**Wastewater Operating Funds** - All 2016 wastewater assessments are at or below projections that were provided to the wastewater municipalities for ratemaking purposes last year. The updated 2017-2020 are preliminary and will be reviewed with municipal officials in November 2015 before being finalized.

### Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 2% each year. Maintain same number of employees.
- Benefit increases of 5% each year. Assumed pension contribution increased to \$1.2 million a year in 2016 and health insurance increases 7% per year.
- Other expenses increase by 2.5% in 2016-2017 and 3.5% in subsequent years.
- Decreased Portland's operating expenses for new aeration system starting in 2017 when the project is expected to be completed.
- New debt service and renewal/replacement fund expenditures consistent with the 2016 5-year capital plan (new debt assumed a 20 year life at 5%). 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 account principles). In addition to the surplus fund balance, a portion of water net income is reserved in a watershed protection land fund. 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 most funds will be above the operating fund target at the end of 2016. The Water fund, which was below the target when the policy was put in place, is projected to continue positive movement towards the goal by the end of 2016.

The Board ordered that the proceeds from the sales of certain surplus properties be added to the Land Cash Reserve. Those sales, when added to the carry forward total, are expected to yield a reserve balance of \$611,567.

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 1/1/2015	Projected 2015	Budget 2016	Balance 12/31/2016	Target Balance	Projection %
Water	\$3,931,874	\$752,669	\$134,608	\$4,819,151	\$5,595,940	21.5%
Cape Elizabeth	287,262	80,492	-	367,754	\$361,594	25.4%
Cumberland	307,020	15,108	-	322,128	\$188,371	42.8%
Gorham	417,084	59,332	-	476,416	\$282,736	42.1%
Portland	3,324,976	178,671	-	3,503,647	\$2,856,133	30.7%
Westbrook	1,404,156	90,868	(84,744)	1,410,280	\$692,044	50.9%
Windham	171,168	12,164	(8,599)	174,733	91,382	47.8%
	<u>\$9,843,540</u>	<u>\$1,189,304</u>	<u>\$41,265</u>	<u>\$11,074,109</u>	<u>\$10,068,200</u>	<u>27.5%</u>

### Contracted Billing Operating Surpluses:

	Balance 1/1/2015	Projected 2015	Budget 2016	Balance 12/31/2016
Falmouth	\$35,602	(\$27,096)	\$2,537	\$11,043
Scarborough	3,891	546	(457)	3,980
So. Portland	107,424	(4,865)	(12,564)	89,995
	<u>\$146,917</u>	<u>(\$31,415)</u>	<u>(\$10,484)</u>	<u>\$105,018</u>

**Combined Surpluses**   **\$9,990,457**   **\$1,157,889**   **\$30,781**   **\$11,179,127**

### Watershed Protection Land Funds (Goal 15.0%)

	Balance 1/1/2015	Projected 2015	Budget 2016	Balance 12/31/2016	Target Balance	Projection %
Watershed Reserve	\$1,219,782	-	-	\$1,219,782	\$3,331,976	5.5%
Land Cash Reserve	962,845	(351,278)	-	611,567		
	<u>\$2,182,627</u>	<u>(\$351,278)</u>	<u>-</u>	<u>\$1,831,349</u>	<u>\$3,331,976</u>	<u>8.2%</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 assumption 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

## 2016 Financial Summary by Category

	2015 Budget	2016 Budget	Diff \$	Diff %
Salaries & Wages	10,178,032	10,361,351	\$183,319	1.8%
Employee Benefits	5,118,429	5,308,818	190,389	3.7%
Biosolids Disposal	1,387,398	1,390,252	2,854	0.2%
Chemicals	1,070,838	1,100,862	30,024	2.8%
Contracted Services	4,084,006	4,171,063	87,057	2.1%
Deferred Cost W/O	29,488	24,486	(5,002)	-17.0%
Heat/Fuel Oil	499,058	448,844	(50,214)	-10.1%
Insurance	204,560	200,164	(4,396)	-2.1%
Materials & Supplies	1,611,952	1,602,150	(9,802)	-0.6%
Other Expense	806,267	748,253	(58,014)	-7.2%
Purchased Power	1,790,652	1,786,094	(4,558)	-0.3%
Regulatory/Taxes	226,586	214,896	(11,690)	-5.2%
Tele/Other Utilities	317,429	350,638	33,209	10.5%
Transportation	1,297,239	1,215,348	(81,891)	-6.3%
Grand Total	28,621,934	28,923,219	301,285	1.1%
Trans Offset	-898,062	-816,925	81,137	-9.0%
Operating Expense	27,723,872	28,106,294	382,422	1.4%

## 2016 Financial Summary by Department

	Number of Employees	2015 Budget	Number of Employees	2016 Budget	Budget Diff \$	Budget Diff %
Water Operations	53	\$8,008,811	53	8,104,858	\$96,047	1.2%
Wastewater Services	39	9,091,655	38	9,161,824	70,169	0.8%
Environmental Services	15	1,899,441	16	1,939,965	40,524	2.1%
Engineering Services	30	4,011,001	30	4,017,149	6,148	0.2%
Administration	40	5,249,828	40	5,351,882	102,054	1.9%
Non-Departmental	1	361,198	1	347,541	(13,657)	-3.8%
Total	178	\$28,621,934	178	\$28,923,219	\$301,285	1.1%

## Departmental Expense by Category

### Salaries/Wages:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
660111 - SALARIES/WAGES NON-UNION	\$3,550,361	\$1,765,999	\$3,854,000	\$4,097,511	\$243,511	6.3%
660121 - WAGES/REGULAR UNION	5,265,008	2,535,473	5,465,803	5,416,600	(\$49,203)	-0.9%
660122 - WAGES/OVERTIME UNION	440,905	251,825	389,564	401,448	\$11,884	3.1%
660123 - WAGES/DOUBLETIME UNION	58,126	27,696	47,046	48,020	\$974	2.1%
660124 - WAGES/STANDBY TIME UNION	130,405	69,024	121,235	124,928	\$3,693	3.0%
660131 - WAGES - REGULAR - TEMPS	149,858	63,044	183,393	157,724	(\$25,669)	-14.0%
660132 - WAGES - OVERTIME- TEMPS	509	10	0	0	\$0	n/a
660136/66351 - CONTRACTED - TEMP	79,220	15,022	89,992	88,120	(\$1,872)	-2.1%
66014 - VACATION ACCRUAL	4,867	0	0	0	\$0	n/a
660141 - TRUSTEES COMPENSATION	22,675	11,450	27,000	27,000	\$0	0.0%
66015 - SICKTIME ACCRUAL	(2,210)	0	0	0	\$0	n/a
	9,699,724	4,739,543	10,178,032	10,361,351	\$183,319	1.8%

The budgeted dollars for labor reflects 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 3.38% of total labor in 2015 to 3.13% in 2016 (an decrease of \$21,380 or 6.0%).

Labor rates for all employees (union and non-union) were assumed to be 2.0% higher than the rates paid to employees on July 1, 2015. The overall O&M increase for all labor categories equaled only 1.8% due to reductions in overtime and temporary positions.

Combined the two regular labor accounts (660111 & 660121) increased 2.1%

Budgeted hours were reduced for both overtime (551 hours or 4.1%) and District employee temporary employees (2,158 or 14.9%).

The District's overall number of regular (non-temporary) employees remained the same between 2015 and 2016 at 178.

Positions	2015 Budget	2016 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:

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
660401 - FICA - EMPLOYERS' SHARE	\$715,302	\$353,784	\$771,735	\$785,907	\$14,172	1.8%
660403 - LIFE INSURANCE	1,200	0	0	0	0	n/a
660405 - SAFETY/WHY PROGRAM ITEMS	29,226	9,558	35,687	38,465	2,778	7.8%
660407 - EDUCATION SUBSIDY	1,264	0	0	0	0	n/a
660411 - MEALS ALLOWANCE	7,668	6,747	6,393	6,829	436	6.8%
660413 - PWD TRAINING PROGRAM	759	39	0	0	0	n/a
6604151 - FIELD UNIFORMS	0	95	1,200	1,300	100	8.3%
660418 - STIPENDS	13,500	14,600	13,750	14,800	1,050	7.6%
660419 - EMPLOYEE BENEFITS-MISC OTH	35,805	12,704	5,350	5,100	(250)	-4.7%
660491 - FRINGE BENEFITS-REG/SAL	3,857,727	2,025,431	4,284,313	4,456,417	172,104	4.0%
	4,662,451	2,422,958	5,118,429	5,308,818	190,389	3.7%

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 2016 Budget, the percentage is 46.84% which is an increase of 0.87% over 2015's percentage of 45.97%. Total benefit costs rose 3.9% with increases in pensions (11.9%) and decrease in health insurance (4.0%).

### Biosolids Disposal:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
663571 - BIOSOLIDS DISPOSAL	<u>\$1,462,622</u>	<u>\$734,920</u>	<u>\$1,387,398</u>	<u>\$1,390,252</u>	<u>\$2,854</u>	<u>0.2%</u>
	1,462,622	734,920	1,387,398	1,390,252	2,854	0.2%

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	2015	2016	Change	%	2015 % Solids	2016 % Solids
Portland (East End)	15,511.0	15,864.0	353.0	2.3%	23.5%	23.3%
Westbrook	4,958.0	5,112.0	154.0	3.1%	16.0%	16.0%
Cape Elizabeth	218.5	196.0	(22.5)	-10.3%	23.5%	23.3%
Peaks Island	<u>45.0</u>	<u>43.5</u>	<u>(1.5)</u>	<u>-3.3%</u>	23.5%	23.3%
Total	20,732.5	21,215.5	483.0	2.3%		

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 \$64.50; the 2016 Budget assumes a 2.0% CPI increase which yields at rate of \$65.53. This rate is a 2.1% decrease over the prior year's budget assumption (\$66.92).

## Departmental Expense by Category (continued)

### Chemicals:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
66181 - AMMONIA	\$31,347	\$13,243	\$23,748	\$28,185	\$4,437	18.7%
661811 - SODIUM BICARBONATE	11,445	9,054	12,474	12,474	\$0	0.0%
661812 - SODIUM BISULFITE	176,726	76,840	170,355	160,320	(\$10,035)	-5.9%
6618121 - SODIUM BISULFITE-ACCR	2,216	1,677	687	0	(\$687)	-100.0%
66182 - CAUSTIC SODA	79,156	26,623	93,610	79,511	(\$14,099)	-15.1%
66183 - FLUORINE COMPOUND	62,122	27,929	59,265	54,096	(\$5,169)	-8.7%
66184 - ZINC ORTHOPHOSPHATE	71,513	34,812	77,004	84,954	\$7,950	10.3%
66185 - SODIUM HYPOCHLORITE	377,169	154,643	386,851	362,844	(\$24,007)	-6.2%
661851 - SODIUM HYPO - ACCRUAL	6,152	(5,245)	1,167	0	(\$1,167)	-100.0%
66189 - POLYMER	239,271	103,628	181,923	251,673	\$69,750	38.3%
661891 - POLYMER - ACCRUAL	(23,822)	899	4,106	0	(\$4,106)	-100.0%
661892 - LIQUID OXYGEN (LOX)	47,778	26,158	53,642	60,795	\$7,153	13.3%
661899 - OTHER CHEMICALS	<u>5,651</u>	<u>1,583</u>	<u>6,006</u>	<u>6,010</u>	<u>\$4</u>	<u>0.1%</u>
	1,086,724	471,844	1,070,838	1,100,862	\$30,024	2.8%

Chemicals are primarily used at the District's one 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 (up 38.3% or \$69,750), particularly at the East End WWTF. The projected usage of that chemical is up significantly per historical trends. Polymer is used to improve the effectiveness of the sludge dewatering process at that wastewater treatment facility.

	2015 Assumption		2016 Assumption		% Change		Budget
	Units	Per Unit	Units	Per Unit	Units	Per Unit	Dollars
<u>Water Treatment (Ozone)</u>							
Ammonia	15,521	1.530	16,579	1.700	6.8%	11.1%	\$4,438
Caustic Soda	105,213	0.820	96,248	0.750	-8.5%	-8.5%	-\$14,089
Fluorine Compound	207,323	0.285	207,323	0.285	0.0%	0.0%	\$0
Liquid Oxygen	111,753	0.480	118,048	0.515	5.6%	7.3%	\$7,154
Sodium Hypochlorite	155,656	0.650	153,386	0.608	-1.5%	-6.5%	-\$7,994
Zinc Orthophosphate	187,814	0.410	207,205	0.410	10.3%	0.0%	\$7,941
<u>East End WWTF</u>							
Polymer	120,680	1.250	175,000	1.250	45.0%	0.0%	\$67,900
Sodium Bisulfite	108,042	1.300	108,042	1.280	0.0%	-1.5%	-\$2,161
Sodium Hypochlorite	390,000	0.650	406,140	0.608	4.1%	-6.5%	-\$6,770
<u>Westbrook WWTF</u>							
Polymer	23,651	1.350	21,980	1.350	-7.1%	0.0%	-\$2,254
Sodium Bisulfite	12,253	2.300	9,880	2.120	-19.4%	-7.8%	-\$7,235
Sodium Hypochlorite	41,520	0.650	31,910	0.608	-23.1%	-6.5%	-\$7,603



## Departmental Expense by Category (continued)

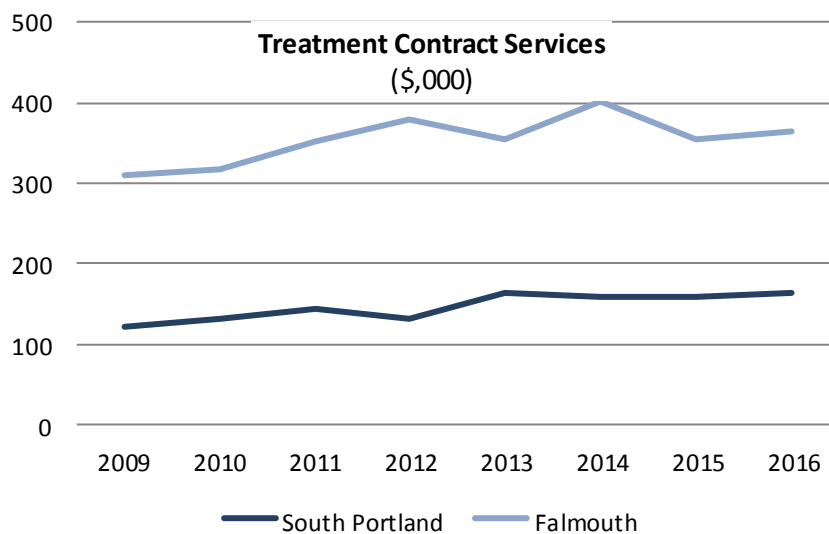
### Contracted Services:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
662062 - PRINTER REPAIR	\$6,000	\$0	\$3,500	\$2,500	(\$1,000)	-28.6%
662063 - COPIER MAINTENANCE/TONER	7,992	4,780	9,500	9,500	0	0.0%
6631 - ENGINEERING SERVICES	56,835	13,735	136,000	191,350	55,350	40.7%
6632 - ACCOUNTING SERVICES	31,250	32,500	32,500	34,000	1,500	4.6%
66331 - LEGAL - LABOR RELATIONS	34,585	43,828	55,000	60,000	5,000	9.1%
66333 - BOND COUNSEL	7,500	-	7,500	7,500	0	0.0%
66339 - LEGAL - OTHER	57,699	28,795	36,400	34,650	(1,750)	-4.8%
66352 - CONSTRUCTION SERVICES	1,722	11,767	65	2,500	2,435	3746.2%
663521 - TRAFFIC CONTROL	53,124	45,721	49,010	52,068	3,058	6.2%
6635221 - PAVING - MINOR REPAIR	280,138	337,824	314,387	301,291	(13,096)	-4.2%
663523 - SIDEWALK	11,776	9,148	15,756	16,353	597	3.8%
663524 - STREET OPENING	59,049	27,610	53,151	59,578	6,427	12.1%
663525 - CONTRACTOR CONSTRUCTION	509,732	197,209	653,474	639,536	(13,938)	-2.1%
66353 - REPAIR SERVICES	42,475	54,044	28,293	44,161	15,868	56.1%
66354 - MAINTENANCE SERVICES	522,579	286,736	733,534	641,764	(91,770)	-12.5%
663542 - LARGE METER TESTING	2,283	-	25,000	25,000	0	0.0%
663543 - CSO FLOW MONITORING	131,619	37,829	180,775	186,007	5,232	2.9%
663544 - MAINT SERVICES - CCTV	60,662	2,813	65,250	60,000	(5,250)	-8.0%
663545 - RADIO SERVICING AND EQUIP	3,918	65	5,000	4,500	(500)	-10.0%
663546 - MAINTENANCE - SNOW REMOVL	47,545	45,095	78,000	131,750	53,750	68.9%
663547 - WASTE SLUDGE TRANSPORT	8,969	10,637	21,462	21,462	0	0.0%
663551 - LAB ANALYSIS	38,717	21,008	50,725	55,210	4,485	8.8%
663561 - COMPUTER LICENSES	73,733	76,929	80,631	84,736	4,105	5.1%
663562 - COMPUTER MAINTAINENCE	186,951	108,675	203,159	208,569	5,410	2.7%
663563 - COMPUTER CONSULTING/OTHER	36,718	5,053	33,300	33,500	200	0.6%
663572 - GRIT & SCREENS DISPOSAL	66,150	22,656	73,950	73,950	0	0.0%
663573 - GREASE DISPOSAL	24,024	12,500	35,200	30,500	(4,700)	-13.4%
663574 - DISPOSAL SERVICES	42,812	23,053	48,956	49,681	725	1.5%
6635801 - EMPLOYEE HEALTH SERVICES	5,189	5,196	8,745	7,600	(1,145)	-13.1%
663581 - UTILITY BILLING PRINTING	76,932	37,618	74,579	76,577	1,998	2.7%
663582 - PAYMENT PROCESSING	136,293	67,980	131,850	134,000	2,150	1.6%
663583 - RECEIVABLE COLLECTIONS	9,451	3,820	10,000	11,000	1,000	10.0%
663584 - BANK SERVICE CHARGES	12,730	9,417	12,000	19,200	7,200	60.0%
663585 - TREATMENT CONTRACT SERVIC	531,149	272,829	545,657	559,100	13,443	2.5%
6635851 - WW DEWATERING SERVICES	3,055	1,537	3,527	3,158	(369)	-10.5%
6635852 - WW DEWATERING SRVS CREDIT	(3,055)	(1,537)	(3,400)	(3,400)	0	0.0%
663587 - COURIER SERVICES	22,566	10,301	22,268	22,620	352	1.6%
663588 - EQUIPMENT MAINTENANCE	4,268	899	27,932	28,747	815	2.9%
663589 - SECURITY SERVICES	68,943	36,278	71,500	82,000	10,500	14.7%
663592 - RECRUITING SERVICES	2,463	2,134	7,250	7,250	0	0.0%
663594 - DIGSAFE	70,831	42,753	74,736	73,950	(786)	-1.1%
663598 - HR CONSULTANT SERVICES	3,040	2,895	2,000	2,000	0	0.0%
6635982 - TREE TRIMMING / REMOVAL	-	-	7,000	7,000	0	0.0%
6635984 - LANGUAGE INTERPRETATION	-	-	300	300	0	0.0%
6635985 - VEHICLE FLEET GPS SERVICE	-	-	-	7,000	7,000	n/a
663599 - MISC OTHER SERVICES	124,615	29,080	33,485	52,545	19,060	56.9%
6636 - TECHNICAL SERVICES	16,322	3,889	25,100	18,800	(6,300)	-25.1%
	3,491,349	1,985,099	4,084,006	4,171,063	87,057	2.1%

## Departmental Expense by Category (continued)

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

- Engineering Services (6631) – This account increased \$55,350 (40.1%), the increase was in the Water and Wastewater funds to get outside help to optimize operations of the various treatment facilities.
- Maintenance Services (66354) – This account was down \$97,770 (12.5%) due in large part to the shifting of expenses in that account to Repair Services (66353) up \$15,868 and Snow Removal (663546) up \$53,750.
- Treatment Contracted Services (663585)- Up \$13,443 (see below):



South Portland and Falmouth treats 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.

## Deferred Cost Write-Off:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
66754 - DEFERRED COST WRITE OFF	\$103,444	\$14,744	\$29,488	\$24,486	(\$5,002)	-17.0%
	\$103,444	\$14,744	\$29,488	\$24,486	(\$5,002)	-17.0%

The Deferred Cost Write-Off contains the annual amortization of studies or other items that have multi-year impacts. The budget decreased in 2016 as no new items were added and the write off of older items ended.

## Departmental Expense by Category (continued)

### Heat/Fuel Oil:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
66161 - HEATING OIL	\$275,916	\$179,414	\$294,114	\$257,040	(\$37,074)	-12.6%
661621 - PIPELINE DELIVERED PROPAN	112,511	106,151	130,158	115,932	(14,226)	-10.9%
661622 - CONTAINER DELIVERED	42,398	38,963	50,886	51,972	1,086	2.1%
66166 - UNLEADED GAS	23,633	8,422	23,900	23,900	-	0.0%
	<u>\$454,458</u>	<u>\$332,950</u>	<u>\$499,058</u>	<u>\$448,844</u>	<u>(\$50,214)</u>	<u>-10.1%</u>

The first three accounts in this category (66161 to 661622) involve fuel used for facilities' heat or backup generators. The Unleaded Gas (66166) is for District vehicles that fuel up at remote locations and the boat used in the District's Sebago Lake monitoring efforts.

	2015 Assumption		2016 Assumption		% Change	
	Units	Per Unit	Units	Per Unit	Units	Per Unit
<b>Heating Oil:</b>						
Douglass Street	38,000	\$3.06	38,000	\$2.69	0.0%	-12.1%
Water Treatment/Ozone Plant	40,617	\$3.16	40,895	\$2.79	0.7%	-11.6%
Westbrook WWTF	7,060	\$3.10	6,900	\$2.89	-2.3%	-6.8%
Cape Elizabeth WWTF	3,929	\$3.10	3,181	\$2.89	-19.0%	-6.8%
Peaks Island WWTF	2,000	\$5.00	1,667	\$4.00	-16.7%	-20.0%
Dana Court WWPS (Westbrook)	1,027	\$3.10	1,000	\$2.89	-2.6%	-6.8%
Water - Throttling Valve Building	707	<u>\$3.329</u>	700	<u>\$2.890</u>	-1.0%	-13.2%
	93,340	\$3.15	92,343	\$2.78	-1.1%	-11.6%
<b>Natural Gas:</b>						
Portland (East End) WWTF	11,878	\$12.67	10,000	\$11.24	-15.8%	-11.3%

### Insurance:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
6656 - VEHICAL INSURANCE	\$28,090	\$13,769	\$30,056	\$28,564	(\$1,492)	-5.0%
66561 - VEHICAL INSURANCE REIMBUR	43	362	-	-	-	n/a
6657 - GEN LIABILITY INSURANCE	46,567	24,001	49,314	48,002	(1,312)	-2.7%
66592 - DAMAGES & CLAIMS-GOODWILL	939	1,283	4,000	4,000	-	0.0%
66593 - UMBRELLA INSURANCE COVER	10,304	4,295	11,636	8,591	(3,045)	-26.2%
66594 - PROFESSION/CRIME BONDING	20,978	11,571	20,671	31,795	11,124	53.8%
66599 - PROPERTY & BOILER INSUR	76,864	43,702	88,883	79,212	(9,671)	-10.9%
	<u>\$183,785</u>	<u>\$98,983</u>	<u>\$204,560</u>	<u>\$200,164</u>	<u>(\$4,396)</u>	<u>-2.1%</u>

Insurance costs include premiums paid on coverage for District property as well as small claims paid directly to outside parties. The reduction in the 2016 Budget was due to the estimated cost of the additions for the water treatment upgrade, used in the 2015 Budget, being too high.

## Departmental Expense by Category (continued)

### Materials & Supplies:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
6619 - ASSET PURCHASES	\$114,963	\$42,872	\$169,301	\$176,311	\$7,010	4.1%
66201 - BULK MATERIALS	590	-	-	-	-	n/a
662012 - CRUSHED GRAVEL	818	-	620	573	(47)	-7.6%
662014 - CRUSHED STONE	870	-	-	-	-	n/a
662015 - LOAM	98	-	-	-	-	n/a
662016 - SAND	9,474	-	857	3,936	3,079	359.3%
662017 - SAND AND SALT	1,044	1,557	9,043	6,433	(2,610)	-28.9%
662018 - BANKRUN GRAVEL	624	-	-	-	-	n/a
66202 - TOOLS	38,515	23,506	48,149	41,794	(6,355)	-13.2%
66203 - VENDOR PURCHASED SUPPLIES	415,872	176,207	451,597	464,821	13,224	2.9%
662041 - MATERIALS INVENTORY	275,911	118,164	204,039	220,968	16,929	8.3%
662042 - SUPPLIES INVENTORY	83,396	43,564	64,538	70,090	5,552	8.6%
662042 - TOOL INVENTORY	713	132	500	500	-	0.0%
66204201 - INVENTORY - QPR	-	3,793	8,237	3,500	(4,737)	-57.5%
66204202 - INVENTORY - BNKRUN GRAVEL	6,984	9,662	6,362	5,888	(474)	-7.5%
66204203 - INVENTORY - CRUSHD GRAVEL	35,516	30,626	23,586	21,641	(1,945)	-8.2%
66204204 - INVENTORY - CRUSHED STONE	912	333	656	603	(53)	-8.1%
66204205 - INVENTORY - LOAM	1,373	455	2,510	2,257	(253)	-10.1%
662043 - TOOL INVENTORY	79,592	52,850	65,649	70,881	5,232	8.0%
66204301 - INVENTORY - TONER	10,259	5,221	11,962	9,490	(2,472)	-20.7%
66204302 - INVENTORY - PAPER	3,821	1,332	5,850	5,725	(125)	-2.1%
66204303 - INVENTORY - COMPUTER EQUIP	16,571	9,719	18,288	17,104	(1,184)	-6.5%
662044 - METER INVENTORY	(1,656)	13,097	-	-	-	n/a
662045 - TRUCK INVENTORY	(86)	-	-	-	-	n/a
662046 - HYDRANT INVENTORY	71,814	41,767	47,015	56,398	9,383	20.0%
662047 - GARAGE INVENTORY	11,956	6,679	13,717	13,776	59	0.4%
66204701 - INVENTORY - UNLEADED GAS	165,452	72,114	187,530	150,480	(37,050)	-19.8%
66204702 - INVENTORY - DIESEL	78,948	40,034	91,512	78,010	(13,502)	-14.8%
66204703 - INVENTORY - TIRES	15,059	6,227	15,000	15,000	-	0.0%
66205 - CONSUMABLE SUPPLIES	89,338	37,577	101,682	97,256	(4,426)	-4.4%
66206 - COMPUTER RELATED EQUIP	-	20,651	49,752	67,027	17,275	34.7%
663564 - COMPUTER-RELATED EQUIP	70,555	21,715	14,000	1,688	(12,312)	-87.9%
	1,599,296	779,854	1,611,952	1,602,150	(9,802)	-0.6%

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 assumptions for vehicle fuel were:

Fuel Type	2015 Assumption Units	2015 Assumption Per Unit	2016 Assumption Units	2016 Assumption Per Unit	% Change Units	Per Unit
Diesel	29,000	\$3.16	29,000	\$2.69	0.0%	-14.8%
Unleaded Gas	57,000	\$3.29	57,000	\$2.64	0.0%	-19.8%
	86,000		86,000		0.0%	

## Departmental Expense by Category (continued)

### Other Expense:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
663541 - SAFETY EXPENSES	\$0	\$ -	\$2,500	\$2,500	\$0	0.0%
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	8,383	4,113	10,271	10,063	(208)	-2.0%
66601 - PUBLIC RELATIONS	7,286	2,981	7,100	7,800	700	9.9%
66609 - OTHER ADVERTISING	58,263	7,462	45,176	39,876	(5,300)	-11.7%
6670 - BAD DEBT EXPENSE	40,800	20,400	40,800	38,400	(2,400)	-5.9%
6675111 - INSTATE TRAINING	60,721	34,866	69,772	80,707	10,935	15.7%
6675112 - OUT OF STATE TRAINING	1,484	1,738	20,900	13,900	(7,000)	-33.5%
6675121 - IN STATE CONFERENCES	8,052	1,971	13,550	12,650	(900)	-6.6%
6675122 - OUT-OF-STATE CONFERENCES	31,276	16,160	35,350	36,850	1,500	4.2%
667513 - DUES	62,926	34,329	78,971	78,354	(617)	-0.8%
667514 - PROFESSIONAL LICENSES	12,366	3,051	12,679	16,528	3,849	30.4%
667515 - PERIODICAL SUBSCRIPTIONS	4,966	2,455	6,969	7,201	232	3.3%
667516 - PERMITS	25,883	7,889	29,312	29,813	501	1.7%
667517 - PLANT OPER LICENSE FEES	-	-	525	75	(450)	-85.7%
667518 - REGULATORY REQUIRED FEES	11,853	-	14,000	14,000	-	0.0%
667521 - POSTAGE - THIRD PARTY	192,287	140,616	221,438	222,945	1,507	0.7%
667522 - POSTAGE - INTERNAL	16,511	9,594	19,441	19,340	(101)	-0.5%
667523 - POSTAGE - EXPRESS DELIVER	1,370	1,024	1,878	2,550	672	35.8%
667531 - PRINTING COSTS	50,397	27,102	58,777	64,668	5,891	10.0%
667533 - FORMS STOCK	626	704	650	650	-	0.0%
667552 - SAFETY TRAINING	5,994	1,769	4,600	3,800	(800)	-17.4%
667553 - DOT SUBSTANCE ABUSE	1,052	703	2,000	2,000	-	0.0%
667554 - EPA / OSHA COMPLIANCE	836	1,399	3,408	3,408	-	0.0%
667555 - SAFETY EXPENSES	5,978	8,207	16,190	16,315	125	0.8%
667556 - FREIGHT CHARGES (STOCK)	7,627	5,167	5,100	5,100	-	0.0%
667561 - WATERSHED GRANTS/SUPPORT	132,365	5,325	42,000	45,150	3,150	7.5%
667581 - ANNUAL LAND CONTRIB CAPE	2,500	2,500	2,500	2,500	-	0.0%
667591 - UNIFORMS	2,486	1,232	2,750	2,800	50	1.8%
667592 - FOOD SUPPLIES	3,375	2,016	6,645	5,995	(650)	-9.8%
667598 - GEN MANAGER CONTINGENCY	-	-	70,000	65,000	(5,000)	-7.1%
6675981 - GEN MNG - TRUSTEES	6,398	6,173	11,000	11,450	450	4.1%
6675982 - GEN MNG - COMMUNITY	19,313	14,959	25,115	24,615	(500)	-2.0%
667599 - OTHER MISCELLANEOUS	11,077	12,283	6,500	2,150	(4,350)	-66.9%
6676 - RENT/CAPITAL OFFSET	(208,440)	(82,598)	(152,800)	(212,100)	(59,300)	38.8%
6706 - AMORT OF U P ACQ ADJUSTS	17,000	8,500	17,000	17,000	-	0.0%
	657,211	328,390	806,267	748,253	(58,014)	-7.2%

Other expenses include postage (\$244,834), training and conferences (\$144,107) and dues (\$78,354).

The Contra Account (6676) contains expenses transferred to other departments or capital projects.

General Manager Contingency increased to cover costs related to water deregulation implementation.

## Departmental Expense by Category (continued)

### Purchased Power:

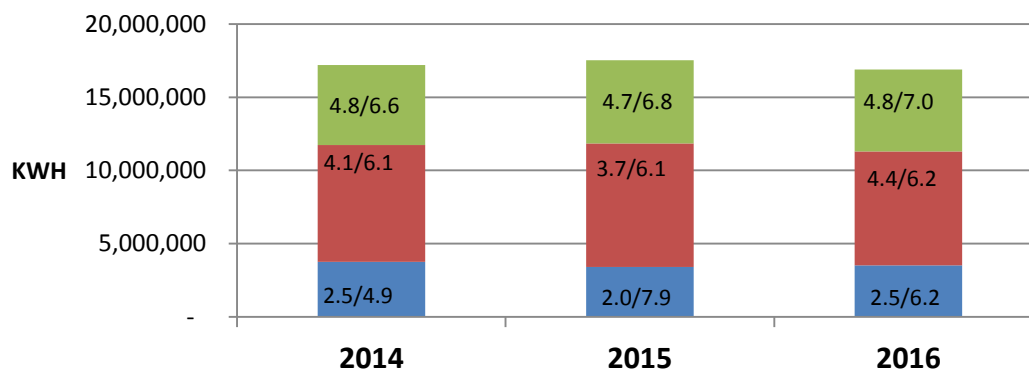
	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
66151 - POWER - LARGE ENERGY	\$660,136	\$412,031	\$782,660	\$704,346	(\$78,314)	-10.0%
66152 - POWER - LARGE T&D	417,166	182,751	382,721	433,640	50,919	13.3%
66153 - POWER - MEDIUM ENERGY	309,299	170,346	326,227	328,275	2,048	0.6%
66154 - POWER - MEDIUM T&D	201,233	92,503	194,044	205,609	11,565	6.0%
66155 - POWER - SMALL ENERGY	52,668	36,692	62,557	65,696	3,139	5.0%
66156 - POWER - SMALL T&D	60,760	33,625	57,443	61,152	3,709	6.5%
66157 - POWER - OTHER CHARGES	9,146	9,023	-	120	120	n/a
66158 - LOAD RESPONSE	(10,428)	(8,734)	(15,000)	(12,744)	2,256	-15.0%
	1,699,980	928,237	1,790,652	1,786,094	(4,558)	-0.3%

Electricity is delivered through the Central Maine Power transmission & distribution (T&D) system. The average 2016 rate per kwh ranges from \$0.025 to \$0.048.

The District purchases its electricity from Constellation Energy through an energy aggregation group - Maine Power Option. Three different energy contracts have been signed through the 2016 Budget Year. In 2016, both the Water Treatment Plant and Portland Wastewater Treatment Plant/India Street contracts have different prices for on and off peak with the rate fixed for 66% and 60%, respectively. The average rate per kwh is \$0.0625 and \$0.062, respectively. The remaining 101 small and medium sized accounts are under contract with a price ranging from \$0.6610 to \$0.8509 per kWh and with an expected 2016 average of \$0.070

The amount of energy is expected to decline to 16.9 million kWh, a 3.6% decline, primarily due to the lower usage at Portland Wastewater Treatment during the aeration upgrade project.

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



- All Other Accounts
- Portland WW Treatment Plant & India Street Pump Station
- Water Treatment Plant

## Departmental Expense by Category (continued)

### Regulatory/Taxes:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
670821 - STANDISH REAL ESTATE TAX	\$49,193	\$20,019	\$58,570	\$42,900	(\$15,670)	-26.8%
670822 - OTHER R/E TAX(NON-STANDI)	7,117	5,144	7,170	7,400	230	3.2%
670823 - PUC ASSESSMENT	77,827	83,721	80,000	83,750	3,750	4.7%
670824 - ME DRINKING WTR PROGRAM	61,830	61,830	61,796	61,796	-	0.0%
670825 - PUC PUBLIC ADVOCATE	19,032	9,371	19,050	19,050	-	0.0%
	214,999	180,085	226,586	214,896	(11,690)	-5.2%

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:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
66101 - WATER	\$126,988	\$80,837	\$143,740	\$145,904	\$2,164	1.5%
66102 - WASTEWATER	23,597	11,259	16,400	26,088	9,688	59.1%
66103 - STORMWATER CHARGES	-	-	-	24,118	24,118	n/a
66111 - TELEPHONE LINES	25,343	14,362	26,369	29,061	2,692	10.2%
66112 - DATA LINES	60,533	32,866	88,606	83,814	(4,792)	-5.4%
66113 - CELLULAR PHONES	48,910	24,669	40,078	40,500	422	1.1%
66114 - PAGERS	2,544	245	2,236	1,153	(1,083)	-48.4%
	287,915	164,238	317,429	350,638	33,209	10.5%

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

### Transportation:

	2013 Actual	2014 Jan-Jun	2014 Budget	2015 Budget	Budget Diff \$	Budget Diff %
66501 - TRANSPORTATION - INTERNAL	\$695,925	\$342,426	\$745,598	\$713,197	(\$32,401)	-4.3%
665019 - TRANS INTERNAL INACTIVE	331,391	233,899	452,734	399,689	(53,045)	-11.7%
66502 - TRANSPORTATION - EXTERNAL	73,825	20,699	74,424	77,946	3,522	4.7%
66503 - MILEAGE REIMBURSEMENT	17,787	10,381	24,483	24,516	33	0.1%
	1,118,928	607,405	1,297,239	1,215,348	-81,891	-6.3%

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. The program's resources had been stretched thin over the past few years, with the amount of the system flushed falling to 9% during 2009. A renewed emphasis was placed on the program with the goal of flushing the entire system over a 3-year cycle, and staff met that goal over the 2012, 2013, and 2014 years.

	2013 Actual	2014 Actual	2015 Projected	2016 Goal
% of Distribution System Flushed	33%	37%	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 piloted daytime flushing in residential areas during 2015; planning more daytime work in 2016 to reduce the number of days employees are assigned to night shifts



## Water Services – Purpose Statement

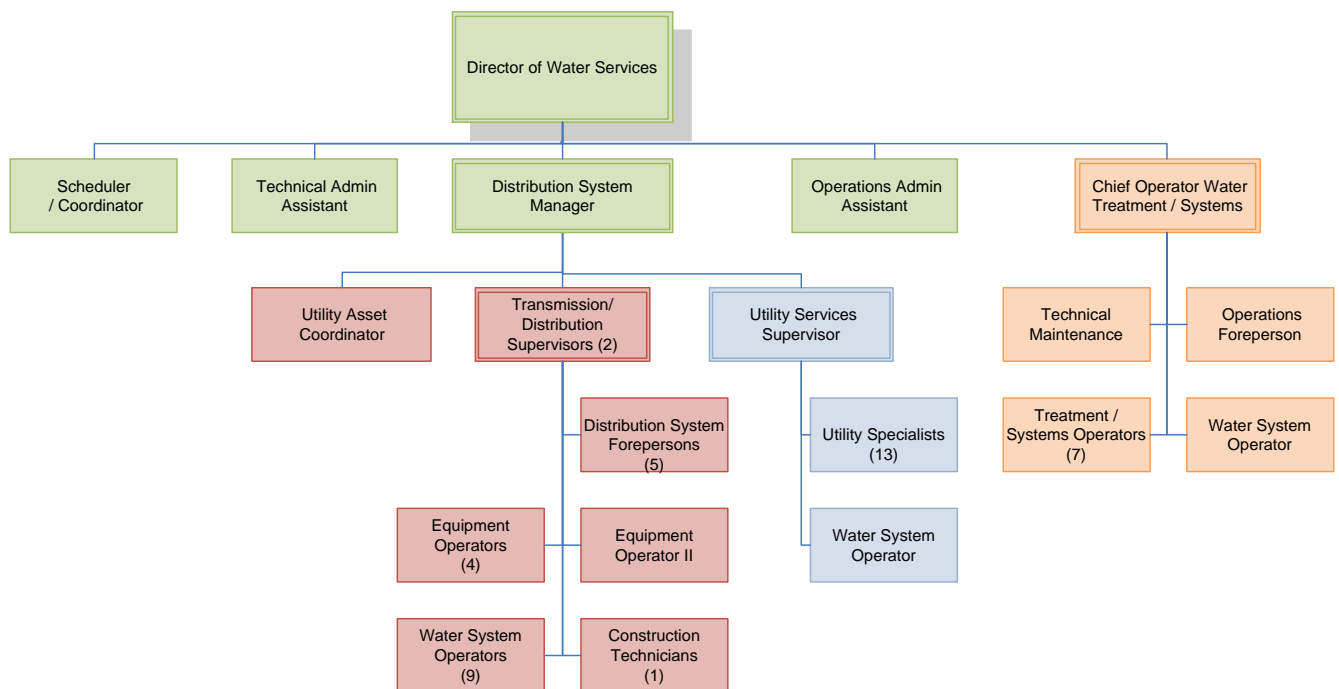
To operate and maintain water system infrastructure including the treatment, water storage and distribution systems.

## Core Services

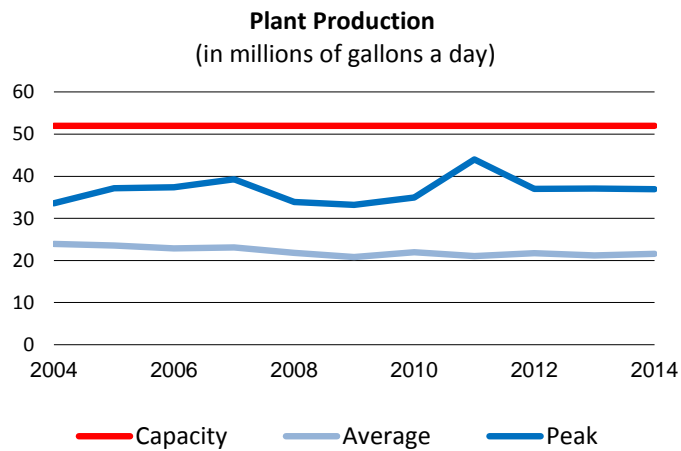
Water Operations is responsible for operating and maintaining the Sebago Lake and Steep Falls Well treatment and water distribution systems by providing the following services:

- 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).

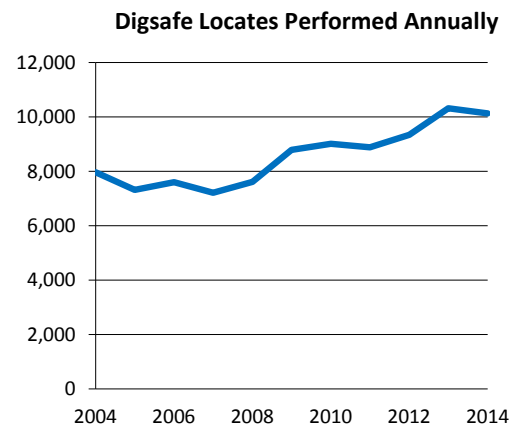
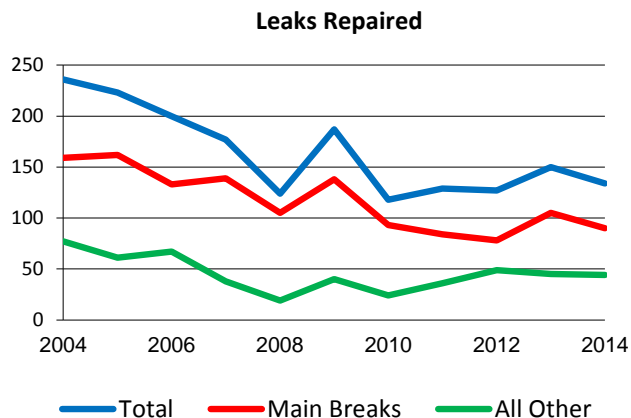
Water Operations has a five-person group (Administration Group- A1; **green** in organization chart) that directs, oversees and provides administrative support.



## Key Statistics



Water Supply	Surface – 99%
	Groundwater -1%
Water Treatment	Ozone, Ultraviolet, Chloramination, Corrosion Control, Fluoridation
Water Mains	988 miles
Valves	13,027
Hydrants	5,003
Service Lines	57,246
Water Storage	10 (+2 non-active)
Sites	
Booster Stations	5
Backflow Devices	4,600



- 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

	2014 Actual	2015 Budget	2016 Budget
<b>Corporate Goal – Public Health</b>			
Compliance of Water Regulations	100%	100%	100%
Avg. Distribution Chlorine Residual	1.3 mg/l	1.0 mg/l	1.0 mg/l
Avg. Distribution pH	7.4 SU	7.5 SU	7.4 SU
<b>Corporate Goal – Public Safety</b>			
Meeting with Municipal Fire Chiefs	2	2	2
<b>Corporate Goal – Reliability</b>			
Water Outage Index	12.2	< 20	< 20
Fire Service Outage Index	3.1 days	3 days	3 days
Leaks per 100 miles of main	9.7	< 25	< 25
Transmission valves exercised	93	418	418
Distribution valves exercised	85	150	150
Customer Appointments On-time	99.8%	99.8%	99.8%
<b>Corporate Goal – Affordability</b>			
Water Facility Maintenance Ratio	68% / 32%	75% / 25%	75% / 25%
Water Production million gallons	7,877	7,837	7,861
Department Cost / million gal	\$939	\$1,022	\$1,031
Treatment Cost / million gal	\$276	\$303	\$306
Unaccounted for Water %	10.2%	< 10%	< 10%
<b>Corporate Goal – Employees and Work Environment</b>			
Employee Training Hours	80.4	80	80

Wedeco

UV

Reactor



## Past Accomplishments

### Water Field

- Completed our eighth 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 the position of Transmission/Distribution Supervisor.
- Continued management of the Transmission Main Right-of-Way Maintenance Program. Last year an additional 1 ½ miles was cleared for a total of approximately 10 ½ miles cleared over the past 5 years.



- Provided oversight of the Summit Gas expansion project in Cumberland and Falmouth to ensure horizontal and vertical pipe separation. This oversight ensures that we have adequate access to our underground infrastructure in the future to make necessary repairs safely and efficiently





## Past Accomplishments (continued)

- Improved tracking and documentation of chlorine residual discharges from hydrant flushing. Additionally, a new diffuser has been purchased which has shown to reduce discharge residual to zero in nearly all instances.



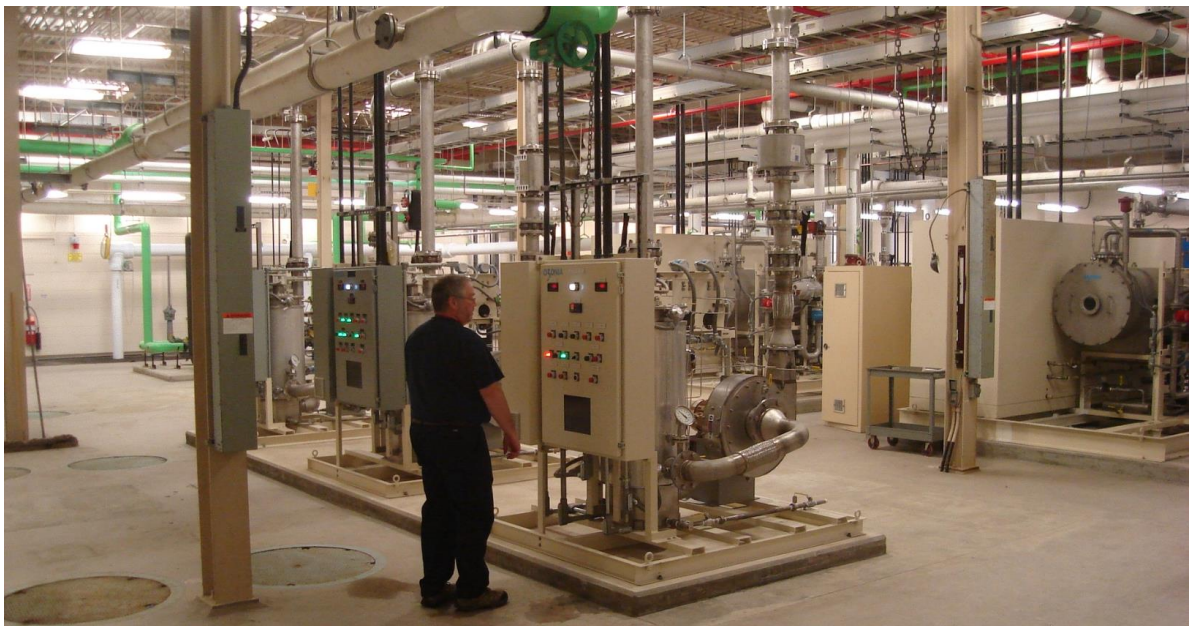
## Water Plant

- Met all Surface Water Treatment Rule regulations, including those associated with Long Term 2 Enhanced Surface Water Treatment Rule from April 1st, 2014 to present day
- Established a new Maine Department of Drinking Water Protection accepted Standard Operating Procedure for operating and reporting ozone treatment Contact Time compliance

UV Sensor Calibration Worksheet					MONTHLY UV OPERATIONS SUMMARY					
Ultraviolet Light Disinfection Calculated Dose Approach					(Calculated Dose)					
System Name:		Portland Water District Greater Portland			Total Volume Water Produced for the Current Month:		326.55			
PWSID#:		91300			Total Volume Water OFF-SPECIFICATION for the Current Month:		0.00			
Treatment Plant or Pump Station:		Sebago Lake			Percentage of Water within Validated Conditions:		100.00			
Reporting period:		June, 2015			Is This > 95%		NO		X Yes	
Signature: Joel Anderson (file)		Date: 7/6/2015			Date		Off-Spec Condition		Volume	
REQUIREMENTS/LIMITS										
UV Reactor# 1		Target Log Inactivation: 2.00								
Max Validated Flow rate: 52 MGD		Target Pathogen: Crypto			CONTACT THE DWP WITHIN 24 HOURS AT 287-2070 (AFTER HRS 557-4214)					
Min Validated UVT: 80%		Dose Req'd(Dreq'd): 5.8			IF YOUR SYSTEM FAILS TO MEET DISINFECTION REQUIREMENTS.					
Operational Data			Dose Requirements		Data at Daily Minimum Validated Dose				UV Dose Adequacy Determination	Total Off-Specification
Date	UV Reactor Run Time (hrs)	Total Production (MG) Treated by UV	Dose req'd 1 (mJ/cm2) [A]	Sensor Correction Factor 2 [B]	Calculated Dose 3 (mJ/cm2) [C]	Daily Minimum Validated Dose 4 ((C)(VF)(B)) (mJ/cm2) [D]	Flow Rate (MGD)	UVT (%)	Validated Dose> D (req'd) ([D] > [A]) (Y/N)	Total Flow Off Specification 5 (MG)
1	13.08	9.61	5.8	1.00	16.86	7.62	22.62	93.60	Y	0.00
2	24.00	20.02	5.8	1.00	15.91	7.47	28.41	94.00	Y	0.00
3	19.08	17.76	5.8	1.00	15.95	7.42	28.31	93.91	Y	0.00
4	24.00	23.46	5.8	1.00	16.76	7.28	35.89	93.18	Y	0.00
5	21.58	19.68	5.8	1.00	16.17	7.23	29.38	93.75	Y	0.00
6	24.00	22.56	5.8	1.00	16.71	7.45	35.38	93.82	Y	0.00
7	24.00	23.23	5.8	1.00	16.44	7.24	23.51	93.87	Y	0.00
8	12.08	10.15	5.8	1.00	16.26	7.48	28.43	93.99	Y	0.00

## Past Accomplishments (continued)

- Annual Filtration Waiver Audit: Far exceeded all requirements of the Maine Drinking Water Program Filtration Waiver Agreement
- Sanitary Survey: Completed Maine Drinking Water Program's required three year sanitary survey
- Zero Reportable Accident or Lost Time Injuries
- Annual maintenance contracts established with Xylem Wedeco (UV treatment equipment), Ozonia (ozone treatment equipment. Reviewed O&M manuals Ozonia Ozone and Wedeco UV equipment and established PM work orders for all the ongoing maintenance of critical equipment
- Worked with CDM &Smith Company to upgrade the off gas system to safely meets all vacuum requirements for plant process startup and transitional flow changes



- Security Upgrade: including pass keys at chemical wing, upgrade doors, real time security cameras at the 1952 intake
- Siemens Switchgear Electrical system static trip and protective relay inspection completed
- Continued to support PWD Educational Outreach program by conducting numerous facility tours for local high schools, colleges, and the popular Drinking Water Week evening tour

## **2016 Projects and Initiatives**

### **Corporate Goal – Public Health**

- Corporate Initiative
  - Expand the Cross Connection Control Program to require the installation of backflow protection devices during new construction of residential buildings
- Departmental Initiatives
  - Update procedure to sample and test distribution system for all main breaks where there is a loss in pressure for Total Coliform bacteria, to confirm quality of the repair procedures and ensure that the water is safe for consumption
  - Continue to meet 100% of all Primary and Secondary Surface Water Treatment Rule

### **Corporate Goal – Public Safety**

- Departmental Initiative
  - Perform hydrant flow testing in 10 areas of Scarborough to confirm available water flow

### **Corporate Goal – Reliability**

- Corporate Initiative
  - Prepare to increase participation from Phase II to Phase III of the AWWA Partnership for Safe Water for the Distribution System
- 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):

- Develop long term capital plan for chemical pumping and storage assets  
Address aging standby generator cooling towers



- Review liquid chemical addition Systems at SLWTF and update Capital Improvement Plans

### Corporate Goal – Affordability

- Corporate Initiative
  - O&M Water fund expenses increase no more than 4%
- Departmental Initiatives
  - Investigate Options for Periods of Unattended Operation at the SLWTF

### Corporate Goal – Employees and Work Environment

- Corporate Initiatives
  - Maintain an average of 80 hours of training per employee
  - Active staff participation in the Executive Safety Committee
  - Active Confined Space Team holds 5 training exercises
- Departmental Initiatives
  - Improve our existing training for newly hired Water System Operators and Administrative Staff in preparation for obtaining Operator's Licensing.
  - Expand daytime flushing; Incorporate municipal zoning maps to identify residential boundaries where daytime flushing can occur.



## Financial Overview

The Water Services Budget for 2016 has increased by 1.2% or \$96,047. The significant changes are occurring in wages & benefits shift to capital work, heating fuel, contracted services, materials, and transportation.

The A1- Water Administration area increased 3.2%, with labor and benefits accounting for 97% of the \$16,557 increase.

A2 – At \$126,859, Water Transmission & Distribution is increasing by 3.4%. The most significant changes to the 2016 budget are in Salary/Wages Non-Union and Engineering Services. The non-union salary increase is a result of adding and additional Transmission/Distribution Supervisor and reducing the number of forepersons from 6 to 5. The increase in Engineering Services is to support Transmission Main Condition Assessment and additional resources to perform topographic survey and evaluate industry technologies for pipe condition.

The A3 – Treatment area has an overall increase of 1.3% or \$32,028. The bulk chemicals uses are expected to remain consistent; however all of the prices are projected to decrease, resulting in a total decrease of \$7,990. The increases in both contracted services (\$19,652) and Materials and Supplies (\$10,628) are largely related to the new treatment equipment. Staff is engaging the original vendors to perform annual inspections and key maintenance tasks on the UV, LOX, and Ozone systems. Power is projected to decrease (\$20,879) and a new high-speed internet connection (\$12,797) was run into the treatment facility to improve performance of the network for all staff stationed at the lake.

A6 – The Utility Services 2016 budget is decreasing by \$79,826, or 5.5%. Union salaries and wages are decreasing in anticipation of more labor hours being allocated to construction inspection, which is a capital expense. The decrease in transportation is also related to vehicle house being allocated to the inspection and oversight of capital projects as well.

**Ozone Generator**



## Water Services: Total

### Financial Summary:

Column1	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Sub-Group:</b>						
A1 - Water Administration	\$459,999	\$232,930	\$472,709	\$489,694	\$16,985	3.6%
A2 - Wtr Transmission/Distrib	3,454,053	1,983,945	3,704,504	3,831,363	126,859	3.4%
A3 - Water Treatment	2,175,884	1,140,470	2,373,974	2,406,002	32,028	1.3%
A6 - Water Utility Services	1,309,284	721,338	1,457,625	1,377,799	-79,826	-5.5%
<b>Grand Total</b>	<b>7,399,219</b>	<b>4,078,682</b>	<b>8,008,811</b>	<b>8,104,858</b>	<b>96,047</b>	<b>1.2%</b>
<b>Expense Type:</b>						
Salaries & Wages	2,817,267	1,431,238	2,884,003	2,949,033	65,030	2.3%
Employee Benefits	1,248,255	675,006	1,355,046	1,407,324	52,278	3.9%
Chemicals	381,991	165,890	402,640	394,650	-7,990	-2.0%
Contracted Services	1,101,092	706,212	1,415,760	1,442,136	26,376	1.9%
Heat/Fuel Oil	135,447	90,152	144,731	130,551	-14,180	-9.8%
Insurance	25,751	16,687	34,113	27,374	-6,739	-19.8%
Materials & Supplies	553,661	303,003	486,980	503,979	16,999	3.5%
Other Expense	18,984	17,052	39,649	39,014	-635	-1.6%
Purchased Power	374,385	254,513	419,875	398,996	-20,879	-5.0%
Tele/Other Utilities	56,013	30,162	59,242	70,503	11,261	19.0%
Transportation	686,373	388,768	766,771	741,298	-25,473	-3.3%
<b>Grand Total</b>	<b>7,399,219</b>	<b>4,078,682</b>	<b>8,008,811</b>	<b>8,104,858</b>	<b>96,047</b>	<b>1.2%</b>
<b>Headcount:</b>						
Full-Time	53	53	53	53	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>53</b>	<b>53</b>	<b>53</b>	<b>53</b>	<b>0</b>	<b>0.0%</b>

**Liquid Oxygen  
Storage System**



	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Salaries &amp; Wages</b>						
660111 - SALARIES/WAGES NON-UNION	\$466,902	\$251,491	\$474,525	\$562,486	\$87,961	18.5%
660121 - WAGES/REGULAR UNION	1,860,204	915,014	1,960,292	1,918,490	(41,802)	-2.1%
660122 - WAGES/OVERTIME UNION	272,418	169,885	218,148	238,095	19,947	9.1%
660123 - WAGES/DOUBLETIME UNION	35,278	21,331	22,391	28,925	6,534	29.2%
660124 - WAGES/STANDBY TIME UNION	95,985	52,860	88,684	90,877	2,193	2.5%
660131 - WAGES - REGULAR - TEMPS	26,775	7,584	40,092	32,160	(7,932)	-19.8%
660132 - WAGES - OVERTIME- TEMPS	475	-	-	-	-	n/a
660136 - CONTRACTED - TEMP	-	-	79,872	78,000	(1,872)	-2.3%
66014 - VACATION ACCRUAL	(5,538)	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	2,520	-	-	-	-	n/a
66351 - CONTRACTED TEMPORARIES	62,249	13,072	-	-	-	n/a
	<b>2,817,267</b>	<b>1,431,238</b>	<b>2,884,003</b>	<b>2,949,033</b>	<b>65,030</b>	<b>2.3%</b>
<b>Employee Benefits</b>						
660401 - FICA - EMPLOYERS' SHARE	204,293	105,470	214,516	219,636	5,120	2.4%
660405 - SAFETY/WHY PROGRAM ITEMS	10,403	3,886	11,047	14,495	3,448	31.2%
660407 - EDUCATION SUBSIDY	662	-	-	-	-	n/a
660411 - MEALS ALLOWANCE	7,348	6,520	5,698	6,099	401	7.0%
660418 - STIPENDS	4,900	5,100	4,500	5,000	500	11.1%
660419 - EMPLOYEE BENEFITS-MISC OTH	8,587	1,221	-	-	-	n/a
660491 - FRINGE BENEFITS-REG/SAL	1,012,062	552,810	1,119,285	1,162,094	42,809	3.8%
<b>Employee Benefits Total</b>	<b>1,248,255</b>	<b>675,006</b>	<b>1,355,046</b>	<b>1,407,324</b>	<b>52,278</b>	<b>3.9%</b>
<b>Chemicals</b>						
66181 - AMMONIA	31,347	13,243	23,748	28,185	4,437	18.7%
66182 - CAUSTIC SODA	71,954	26,623	86,394	72,295	(14,099)	-16.3%
66183 - FLUORINE COMPOUND	62,122	27,929	59,265	54,096	(5,169)	-8.7%
66184 - ZINC ORTHOPHOSPHATE	71,513	34,812	77,004	84,954	7,950	10.3%
66185 - SODIUM HYPOCHLORITE	96,659	37,126	102,587	94,325	(8,262)	-8.1%
661892 - LIQUID OXYGEN (LOX)	47,778	26,158	53,642	60,795	7,153	13.3%
661899 - OTHER CHEMICALS	617	-	-	-	-	n/a
<b>Chemicals Total</b>	<b>381,991</b>	<b>165,890</b>	<b>402,640</b>	<b>394,650</b>	<b>(7,990)</b>	<b>-2.0%</b>
<b>Contracted Services</b>						
6631 - ENGINEERING SERVICES	120	-	50,000	88,850	38,850	77.7%
66352 - CONSTRUCTION SERVICES	1,722	11,767	65	2,500	2,435	3746.2%
663521 - TRAFFIC CONTROL	53,124	45,721	48,710	51,768	3,058	6.3%
6635221 - PAVING - MINOR REPAIR	280,138	337,824	314,387	301,291	(13,096)	-4.2%
663523 - SIDEWALK	11,776	9,148	15,756	16,353	597	3.8%
663524 - STREET OPENING	58,538	27,416	53,151	59,578	6,427	12.1%
663525 - CONTRACTOR CONSTRUCTION	489,292	197,209	622,974	614,036	(8,938)	-1.4%
663527 - EMERGENCY RESPONSE- FEMA	-	-	300	360	60	20.0%
66353 - REPAIR SERVICES	36,087	5,556	9,893	19,161	9,268	93.7%
66354 - MAINTENANCE SERVICES	90,171	29,488	177,883	150,977	(26,906)	-15.1%
663542 - LARGE METER TESTING	2,283	-	25,000	25,000	-	0.0%
663546 - MAINTENANCE - SNOW REMOVL	27,218	16,883	43,200	52,000	8,800	20.4%
663561 - COMPUTER LICENSES	16,361	17,307	16,388	17,652	1,264	7.7%
663574 - DISPOSAL SERVICES	14,807	1,535	7,738	5,863	(1,875)	-24.2%
663587 - COURIER SERVICES	2,247	1,025	2,133	2,250	117	5.5%
663588 - EQUIPMENT MAINTENANCE	4,143	899	21,182	21,997	815	3.8%
663594 - DIGSAFE	750	1,750	-	-	-	n/a
6635982 - TREE TRIMMING / REMOVAL	-	-	7,000	7,000	-	0.0%
663599 - MISC OTHER SERVICES	12,315	2,685	-	5,500	5,500	n/a
<b>Contracted Services Total</b>	<b>1,101,092</b>	<b>706,212</b>	<b>1,415,760</b>	<b>1,442,136</b>	<b>26,376</b>	<b>1.9%</b>

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Heat/Fuel Oil</b>						
66161 - HEATING OIL	\$115,674	\$79,984	\$130,523	\$116,118	(\$14,405)	-11.0%
661622 - CONTAINER DELIVERED	19,733	10,168	14,208	14,433	225	1.6%
66166 - UNLEADED GAS	40	-	-	-	-	n/a
<b>Heat/Fuel Oil Total</b>	<b>135,447</b>	<b>90,152</b>	<b>144,731</b>	<b>130,551</b>	<b>(14,180)</b>	<b>-9.8%</b>
<b>Insurance</b>						
66599 - PROPERTY & BOILER INSUR	25,751	16,687	34,113	27,374	(6,739)	-19.8%
<b>Insurance Total</b>	<b>25,751</b>	<b>16,687</b>	<b>34,113</b>	<b>27,374</b>	<b>(6,739)</b>	<b>-19.8%</b>
<b>Materials &amp; Supplies</b>						
6619 - ASSET PURCHASES	13,853	12,716	30,501	22,061	(8,440)	-27.7%
66201 - BULK MATERIALS	590	-	-	-	-	n/a
662012 - CRUSHED GRAVEL	818	-	620	573	(47)	-7.6%
662014 - CRUSHED STONE	870	-	-	-	-	n/a
662015 - LOAM	98	-	-	-	-	n/a
662016 - SAND	9,474	-	857	3,936	3,079	359.3%
662017 - SAND AND SALT	1,044	1,557	8,843	6,433	(2,410)	-27.3%
662018 - BANKRUN GRAVEL	624	-	-	-	-	n/a
66202 - TOOLS	26,575	17,911	27,749	23,644	(4,105)	-14.8%
66203 - VENDOR PURCHASED SUPPLIES	89,926	21,169	51,432	79,921	28,489	55.4%
662041 - MATERIALS INVENTORY	188,843	79,080	168,314	178,243	9,929	5.9%
662042 - SUPPLIES INVENTORY	32,592	19,692	17,488	19,440	1,952	11.2%
66204201 - INVENTORY - QPR	-	3,793	8,237	3,500	(4,737)	-57.5%
66204202 - INVENTORY - BNKRUN GRAVEL	6,984	9,662	6,362	5,888	(474)	-7.5%
66204203 - INVENTORY - CRUSHD GRAVEL	35,516	30,626	23,586	21,641	(1,945)	-8.2%
66204204 - INVENTORY - CRUSHED STONE	912	333	656	603	(53)	-8.1%
66204205 - INVENTORY - LOAM	1,373	455	2,510	2,257	(253)	-10.1%
662043 - TOOL INVENTORY	55,050	36,765	41,999	43,831	1,832	4.4%
66204301 - INVENTORY - TONER	-	754	1,562	1,290	(272)	-17.4%
66204302 - INVENTORY - PAPER	-	62	-	-	-	n/a
66204303 - INVENTORY - COMPUTER EQUIP	2,548	711	8,700	1,800	(6,900)	-79.3%
662044 - METER INVENTORY	2,570	13,914	-	-	-	n/a
662045 - TRUCK INVENTORY	(86)	-	-	-	-	n/a
662046 - HYDRANT INVENTORY	61,875	40,962	47,015	56,398	9,383	20.0%
662047 - GARAGE INVENTORY	2,707	1,568	2,692	2,676	(16)	-0.6%
66205 - CONSUMABLE SUPPLIES	12,035	4,421	17,657	14,756	(2,901)	-16.4%
66206 - COMPUTER RELATED EQUIP	-	6,852	20,200	13,400	(6,800)	-33.7%
663564 - COMPUTER-RELATED EQUIP	6,870	-	-	1,688	1,688	n/a
<b>Materials &amp; Supplies Total</b>	<b>553,661</b>	<b>303,003</b>	<b>486,980</b>	<b>503,979</b>	<b>16,999</b>	<b>3.5%</b>

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Other Expense</b>						
663541 - SAFETY EXPENSES	\$0	\$0	\$2,500	\$2,500	\$0	0.0%
6641 - BUILDING/REAL PROP RENT	5,600	-	5,600	5,600	-	0.0%
6642 - EQUIPMENT RENT	4,695	1,810	4,021	3,813	(208)	-5.2%
66601 - PUBLIC RELATIONS	182	-	-	-	-	n/a
667511 - TRAINING	-	105	-	-	-	n/a
6675111 - INSTATE TRAINING	16,246	15,906	23,772	22,657	(1,115)	-4.7%
6675121 - IN STATE CONFERENCES	108	210	1,000	1,000	-	0.0%
6675122 - OUT-OF-STATE CONFERENCES	195	-	-	-	-	n/a
667513 - DUES	1,231	1,249	3,286	4,286	1,000	30.4%
667514 - PROFESSIONAL LICENSES	3,506	1,291	5,404	4,728	(676)	-12.5%
667515 - PERIODICAL SUBSCRIPTIONS	-	-	200	200	-	0.0%
667516 - PERMITS	470	425	680	781	101	14.9%
667521 - POSTAGE - THIRD PARTY	1,826	2,189	3,956	4,003	47	1.2%
667522 - POSTAGE - INTERNAL	253	83	100	100	-	0.0%
667523 - POSTAGE - EXPRESS DELIVER	37	-	200	200	-	0.0%
667531 - PRINTING COSTS	7,332	3,332	8,202	8,418	216	2.6%
667552 - SAFETY TRAINING	75	364	-	-	-	n/a
667554 - EPA / OSHA COMPLIANCE	836	1,399	3,408	3,408	-	0.0%
667555 - SAFETY EXPENSES	-	-	2,000	2,000	-	0.0%
667592 - FOOD SUPPLIES	162	330	520	520	-	0.0%
667599 - OTHER MISCELLANEOUS	1,431	958	-	-	-	n/a
6676 - RENT/CAPITAL OFFSET	(25,200)	(12,600)	(25,200)	(25,200)	-	0.0%
<b>Other Expense Total</b>	<b>18,984</b>	<b>17,052</b>	<b>39,649</b>	<b>39,014</b>	<b>(635)</b>	<b>-1.6%</b>
<b>Purchased Power</b>						
66151 - POWER - LARGE ENERGY	185,135	162,280	269,261	220,218	(49,043)	-18.2%
66152 - POWER - LARGE T&D	92,849	38,873	68,724	88,741	20,017	29.1%
66153 - POWER - MEDIUM ENERGY	37,453	18,140	36,252	38,851	2,599	7.2%
66154 - POWER - MEDIUM T&D	24,857	12,792	23,855	25,211	1,356	5.7%
66155 - POWER - SMALL ENERGY	13,555	8,991	15,101	16,855	1,754	11.6%
66156 - POWER - SMALL T&D	16,133	8,614	14,683	16,164	1,481	10.1%
66157 - POWER - OTHER CHARGES	9,146	8,973	-	-	-	n/a
66158 - LOAD RESPONSE	(4,743)	(4,150)	(8,000)	(7,044)	956	-12.0%
<b>Purchased Power Total</b>	<b>374,385</b>	<b>254,513</b>	<b>419,875</b>	<b>398,996</b>	<b>(20,879)</b>	<b>-5.0%</b>
<b>Tele/Other Utilities</b>						
66101 - WATER	3,654	2,004	3,185	3,600	415	13.0%
66102 - WASTEWATER	22,620	11,259	16,400	24,588	8,188	49.9%
66103 - STORMWATER CHARGES	-	-	-	1,728	1,728	n/a
66111 - TELEPHONE LINES	1,832	925	1,248	1,842	594	47.6%
66112 - DATA LINES	14,186	7,613	24,739	26,058	1,319	5.3%
66113 - CELLULAR PHONES	12,567	7,236	12,540	12,540	-	0.0%
66114 - PAGERS	1,154	1,125	1,130	147	(983)	-87.0%
<b>Tele/Other Utilities Total</b>	<b>56,013</b>	<b>30,162</b>	<b>59,242</b>	<b>70,503</b>	<b>11,261</b>	<b>19.0%</b>
<b>Transportation</b>						
66501 - TRANSPORTATION - INTERNAL	438,537	238,630	446,950	418,996	(27,954)	-6.3%
665019 - TRANS INTERNAL INACTIVE	189,968	134,895	259,583	258,034	(1,549)	-0.6%
66502 - TRANSPORTATION - EXTERNAL	56,133	13,150	57,174	60,546	3,372	5.9%
66503 - MILEAGE REIMBURSEMENT	1,735	2,093	3,064	3,722	658	21.5%
<b>Transportation Total</b>	<b>686,373</b>	<b>388,768</b>	<b>766,771</b>	<b>741,298</b>	<b>(25,473)</b>	<b>-3.3%</b>
<b>Grand Total</b>	<b>7,399,219</b>	<b>4,078,682</b>	<b>8,008,811</b>	<b>8,104,858</b>	<b>96,047</b>	<b>1.2%</b>



## Water Services: Water Administration (A1)

### Financial Summary:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$297,851	\$147,081	\$299,892	\$308,876	\$8,984	3.0%
Employee Benefits	154,333	79,334	160,965	168,538	7,573	4.7%
Materials & Supplies	1,394	137	850	2,488	1,638	192.7%
Other Expense	4,114	4,859	7,946	7,001	-945	-11.9%
Tele/Other Utilities	2,140	1,044	1,920	1,920	0	0.0%
Transportation	167	474	1,136	871	-265	-23.3%
<b>Grand Total</b>	<b>459,999</b>	<b>232,930</b>	<b>472,709</b>	<b>489,694</b>	<b>16,985</b>	<b>3.6%</b>
<b>Programs:</b>						
98 - Training	17,717	11,154	21,036	21,267	231	1.1%
99 - Administration	442,282	221,776	451,673	468,427	16,754	3.7%
<b>Grand Total</b>	<b>459,999</b>	<b>232,930</b>	<b>472,709</b>	<b>489,694</b>	<b>16,985</b>	<b>3.6%</b>
<b>Funds:</b>						
10 - General	81,455	36,364	76,373	81,092	4,719	6.2%
20 - Water General	378,034	196,424	394,631	406,898	12,267	3.1%
50 - Wastewater General	510	141	1,704	1,704	0	0.0%
<b>Grand Total</b>	<b>459,999</b>	<b>232,930</b>	<b>472,709</b>	<b>489,694</b>	<b>16,985</b>	<b>3.6%</b>
<b>Headcount:</b>						
Full-Time	5	5	5	5	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>0.0%</b>

## Water Services: Water Transmission/Distribution (A2)

### Financial Summary:

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$1,121,325	\$582,592	\$1,146,574	\$1,213,068	\$66,494	5.8%
Employee Benefits	470,299	259,681	506,455	546,895	40,440	8.0%
Contracted Services	923,513	636,042	1,140,377	1,146,286	5,909	0.5%
Materials & Supplies	381,055	198,065	312,800	328,183	15,383	4.9%
Other Expense	21,404	10,687	20,113	18,676	-1,437	-7.1%
Tele/Other Utilities	10,156	6,226	8,807	9,972	1,165	13.2%
Transportation	526,301	290,652	569,378	568,283	-1,095	-0.2%
<b>Grand Total</b>	<b>3,454,053</b>	<b>1,983,945</b>	<b>3,704,504</b>	<b>3,831,363</b>	<b>126,859</b>	<b>3.4%</b>
<b>Programs:</b>						
1 - Seasonal Mains	96,273	47,956	89,707	89,567	-140	-0.2%
10 - General Distribution	227,407	109,886	228,205	233,827	5,622	2.5%
11 - Mains & Valves Maint	1,106,724	811,796	1,268,461	1,254,496	-13,965	-1.1%
12 - Services Maintenance	601,723	348,680	666,239	626,048	-40,191	-6.0%
13 - Emergency Maintenance	234	0	0	0	0	n/a
15 - Digsafe Locates	1,180	50	0	0	0	n/a
17 - Hydrant Maintenance	251,624	141,241	219,879	267,336	47,457	21.6%
18 - Water Treatment Maint	0	327	0	0	0	n/a
2 - Meter Reading	40,146	40,680	16,304	25,866	9,562	58.6%
20 - Meter Service	275	994	0	0	0	n/a
4 - Paving (Mains)	280,189	478	349,875	313,719	-36,156	-10.3%
44 - WW Pumping	0	769	0	0	0	n/a
45 - WW Treatment	5,676	181	0	1,231	1,231	n/a
90 - Vehicles	27,225	15,730	29,147	29,674	527	1.8%
91 - Snow Removal	22,216	25,027	40,044	32,707	-7,337	-18.3%
92 - Bulk Materials Adjustment	12,690	25,536	12	354	342	2850.0%
98 - Training	117,686	45,242	77,818	83,583	5,765	7.4%
99 - Administration	662,785	369,372	718,813	872,955	154,142	21.4%
<b>Grand Total</b>	<b>3,454,053</b>	<b>1,983,945</b>	<b>3,704,504</b>	<b>3,831,363</b>	<b>126,859</b>	<b>3.4%</b>
<b>Funds:</b>						
10 - General	553,261	303,134	575,289	581,295	6,006	1.0%
20 - Water General	2,894,090	1,678,373	3,129,094	3,246,533	117,439	3.8%
30 - Water Standish	932	1,487	121	2,304	2,183	1804.1%
57 - WW Portland	5,596	950	0	1,231	1,231	n/a
64 - WW Joint Westbrook	36	0	0	0	0	n/a
66 - WW Peaks Island	137	0	0	0	0	n/a
<b>Grand Total</b>	<b>3,454,053</b>	<b>1,983,945</b>	<b>3,704,504</b>	<b>3,831,363</b>	<b>126,859</b>	<b>3.4%</b>
<b>Headcount:</b>						
Full-Time	23	22	22	22	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>23</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>0</b>	<b>0.0%</b>



## Water Services: Water Treatment (A3)

### Financial Summary:

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$670,774	\$320,749	\$652,900	\$675,950	\$23,050	3.5%
Employee Benefits	294,694	154,204	312,064	327,276	15,212	4.9%
Chemicals	381,991	165,890	402,640	394,650	-7,990	-2.0%
Contracted Services	154,947	67,322	236,701	256,353	19,652	8.3%
Heat/Fuel Oil	135,407	90,152	144,731	130,551	-14,180	-9.8%
Insurance	25,751	16,687	34,113	27,374	-6,739	-19.8%
Materials & Supplies	89,092	44,464	106,460	117,088	10,628	10.0%
Other Expense	-21,124	-10,225	-8,218	-8,709	-491	6.0%
Purchased Power	374,385	254,513	419,875	398,996	-20,879	-5.0%
Tele/Other Utilities	32,088	16,308	34,558	47,355	12,797	37.0%
Transportation	37,881	20,406	38,150	39,118	968	2.5%
<b>Grand Total</b>	<b>2,175,884</b>	<b>1,140,470</b>	<b>2,373,974</b>	<b>2,406,002</b>	<b>32,028</b>	<b>1.3%</b>
<b>Programs:</b>						
1 - Seasonal Mains	1,633	1,162	0	0	0	n/a
18 - Water Treatment Maint	107,932	62,796	109,600	129,611	20,011	18.3%
24 - Distribution Operations	282,155	139,579	276,904	284,309	7,405	2.7%
25 - Water Storage Maintenance	22,645	6,956	34,864	49,449	14,585	41.8%
34 - Distribution Maintenance	22,582	18,560	29,443	33,861	4,418	15.0%
6 - Water Treatment	1,486,719	814,448	1,704,391	1,670,724	-33,667	-2.0%
98 - Training	52,127	15,180	40,068	51,260	11,192	27.9%
99 - Administration	200,091	81,789	178,705	186,788	8,083	4.5%
<b>Grand Total</b>	<b>2,175,884</b>	<b>1,140,470</b>	<b>2,373,974</b>	<b>2,406,002</b>	<b>32,028</b>	<b>1.3%</b>
<b>Funds:</b>						
10 - General	200,484	77,233	172,634	183,305	10,671	6.2%
20 - Water General	1,915,572	1,033,405	2,134,817	2,150,548	15,731	0.7%
30 - Water Standish	59,828	29,831	66,523	72,149	5,626	8.5%
<b>Grand Total</b>	<b>2,175,884</b>	<b>1,140,470</b>	<b>2,373,974</b>	<b>2,406,002</b>	<b>32,028</b>	<b>1.3%</b>
<b>Headcount:</b>						
Full-Time	11	11	11	11	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>0</b>	<b>0.0%</b>

## Water Services: Water Utility Services (A6)

### Financial Summary:

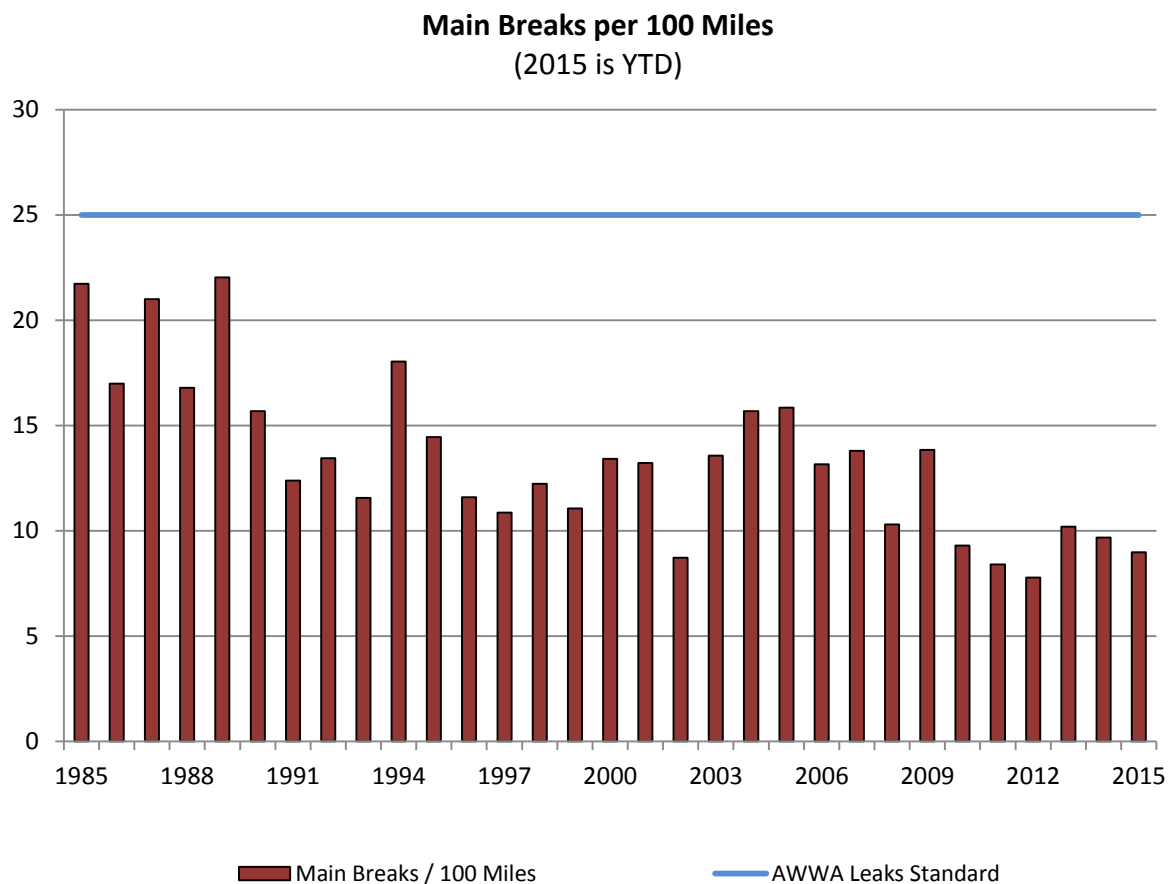
	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$727,318	\$380,815	\$784,638	\$751,139	-\$33,499	-4.3%
Employee Benefits	328,929	181,787	375,562	364,615	-10,947	-2.9%
Contracted Services	22,632	2,849	38,682	39,497	815	2.1%
Materials & Supplies	82,120	60,337	66,870	56,220	-10,650	-15.9%
Other Expense	14,631	11,731	19,808	22,046	2,238	11.3%
Tele/Other Utilities	11,629	6,584	13,957	11,256	-2,701	-19.4%
Transportation	122,024	77,236	158,107	133,026	-25,081	-15.9%
<b>Grand Total</b>	<b>1,309,284</b>	<b>721,338</b>	<b>1,457,625</b>	<b>1,377,799</b>	<b>-79,826</b>	<b>-5.5%</b>
<b>Programs:</b>						
1 - Seasonal Mains	35,058	20,048	33,557	37,967	4,410	13.1%
10 - General Distribution	27,418	34,798	51,066	31,071	-19,995	-39.2%
14 - Distribution Flushing	10,639	42,017	128,519	109,960	-18,559	-14.4%
15 - Digsafe Locates	221,150	95,615	268,391	226,991	-41,400	-15.4%
16 - Cross Connection	18,167	9,326	36,274	21,930	-14,344	-39.5%
17 - Hydrant Maintenance	122,620	53,987	37,471	84,811	47,340	126.3%
19 - Winter Hydrant Pump	39,937	9,205	113,030	53,672	-59,358	-52.5%
2 - Meter Reading	85,003	40,381	87,296	94,092	6,796	7.8%
20 - Meter Service	120,536	69,352	95,953	155,999	60,046	62.6%
21 - Large Meter Testing	4,855	1,322	41,014	33,696	-7,318	-17.8%
22 - Meter Replacement Program	1,267	543	12,277	2,859	-9,418	-76.7%
26 - Submeters	2,503	272	803	0	-803	-100.0%
3 - Leak Surveys	505	286	500	500	0	0.0%
31 - Vehicle Cleaning	2,313	1,334	3,925	1,490	-2,435	-62.0%
7 - General Investigation	207,503	112,597	194,203	178,009	-16,194	-8.3%
76 - Collection	23,580	5,055	14,313	13,918	-395	-2.8%
90 - Vehicles	279	827	6,204	1,490	-4,714	-76.0%
94 - Technology Teams	891	0	1,204	1,490	286	23.8%
98 - Training	52,503	56,062	57,799	65,543	7,744	13.4%
99 - Administration	332,558	168,313	273,825	262,311	-11,514	-4.2%
<b>Grand Total</b>	<b>1,309,284</b>	<b>721,338</b>	<b>1,457,625</b>	<b>1,377,799</b>	<b>-79,826</b>	<b>-5.5%</b>
<b>Funds:</b>						
10 - General	479,886	276,778	405,739	467,076	61,337	15.1%
20 - Water General	812,388	442,658	1,007,565	898,363	-109,202	-10.8%
30 - Water Standish	9,062	1,631	5,250	3,914	-1,336	-25.4%
50 - Wastewater General	0	0	13,736	0	-13,736	-100.0%
51 - WW Cape Elizabeth	272	20	5,971	1,739	-4,232	-70.9%
53 - WW Cumberland	2,973	0	7,174	3,229	-3,945	-55.0%
55 - WW Windham LF	262	0	5,732	1,739	-3,993	-69.7%
57 - WW Portland	1,868	221	125	0	-125	-100.0%
59 - WW South Portland	218	21	276	0	-276	-100.0%
61 - WW Gorham	2,230	0	5,930	1,739	-4,191	-70.7%
62 - WW Westbrook	126	10	125	0	-125	-100.0%
<b>Grand Total</b>	<b>1,309,284</b>	<b>721,338</b>	<b>1,457,625</b>	<b>1,377,799</b>	<b>-79,826</b>	<b>-5.5%</b>
<b>Headcount:</b>						
Full-Time	14	15	15	15	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>14</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>0.0%</b>

## 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 year's targeting replacements of aging pipes.

A report in the American Water Works Association Journal states that a reasonable goal for main breaks in North America is 25 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.



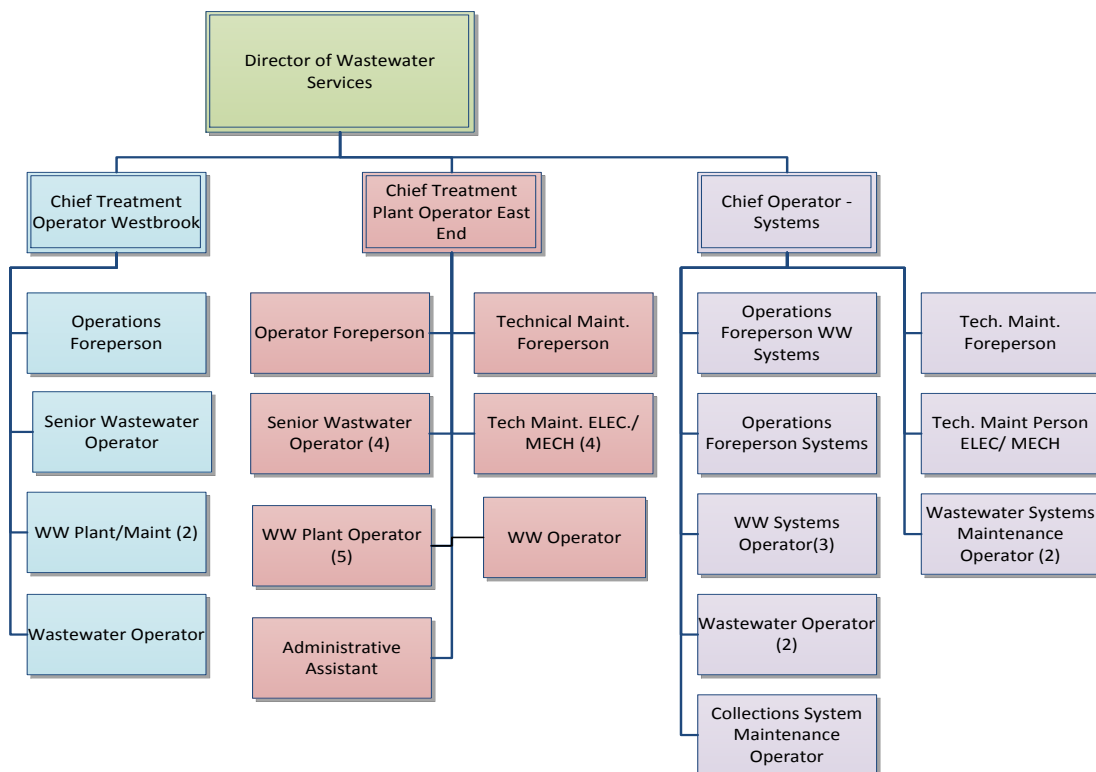
## Wastewater Services – Purpose Statement

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. Services provided include:

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 18 are directly responsible for the East End Treatment Plant in Portland and maintenance at all treatment plants (Portland Group – B3; red in organization chart). Operations staff of 6 is directly responsible for the treatment facility in Westbrook serving Gorham, Westbrook and Windham, along with the Cape Elizabeth and Peaks Island Treatment Facilities (Westbrook/Cape/Peaks group – B4; blue 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. The program will be expanded to include laboratory training to ensure our operators can perform the required regulatory testing to fully monitor our operations.



## Key Statistics

### Wastewater Treatment Facilities - 2014

Cape Elizabeth South WWTF

Average Daily Flow – 0.296 million gallons

Portland – East End WWTF

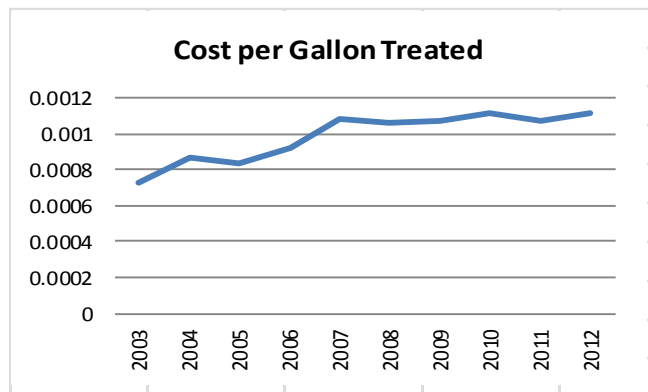
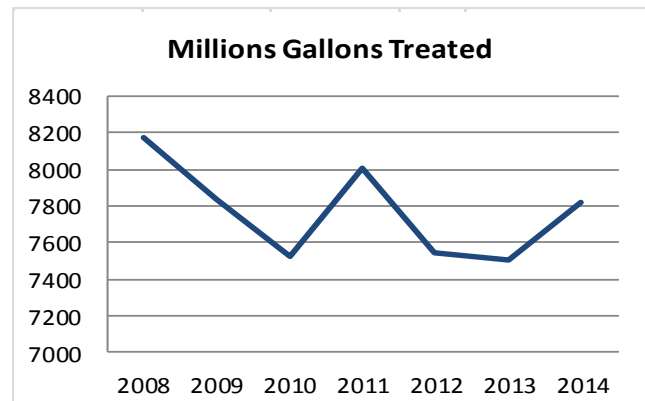
Average Daily Flow – 18.067 million gallons

Peaks Island (Portland) WWTF

Average Daily Flow – 0.105 million gallons

Westbrook/Gorham/Windham Regional WWTF

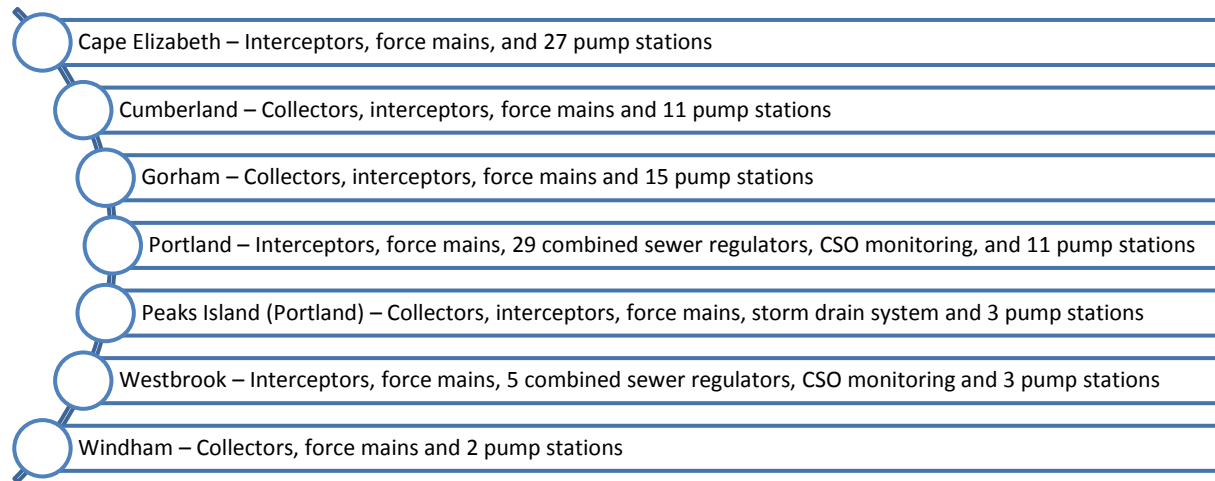
Average Daily Flow – 2.945 million gallons



### Wastewater Services Group Facts

- CSO program includes a web-based system that allows for near real-time monitoring and alarming of nearly 90% of the total overflow sites for PWD and several member municipalities.
- The East End Treatment plant provided primary treatment and disinfection of 44.6% (333.57 million gallons) of CSO and wet weather flow in 2014 as part of Portland's overall CSO control program
- 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 system to better manages the capacity of the collection system. The Town of Cape Elizabeth completed an inventory of I/I sources in the Ottawa Rd. drainage area. 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 four years. This effort will help to address coming workforce management issues due to pending retirements in the coming years. Four positions have been created which 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 and spend a short time

### Wastewater Systems Responsibility



### Performance Benchmarks

	2014 Actual	2015 Projected	2016 Goal
<b><u>Wastewater Systems</u></b>			
<b>Corporate Goal - Environment</b>			
Wet wells cleaned	117	133	125
Feet of pipe cleaned	6,050	10,000	>20,000
Feet of pipe televised	9,840	30,000	>30,000
Dry weather overflows	4	4	0
<b>Corporate Goal -Reliability</b>			
Corrective Maintenance tasks	160	245	<500
<b>Corporate Goal -Affordability</b>			
Preventive Maintenance tasks	847	1,274	1,100
<b><u>Treatment Operations</u></b>			
<b>Corporate Goal - Environment</b>			
Total license excursions	10	10	0
<b>Corporate Goal -Reliability</b>			
Biosolids removed (wet tons)	22,677	22,978	<21,500
% BOD removed	93.3	93.5	>85
% suspended solids removed	96	95.5	>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 complete required storm drainage work in 2015.
  - 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 Warf Tide Gate was replaced to eliminate excessive inflow from the outlet. Seawater infiltration accounts for approximately 5% of the annual treatment plant flow in Portland.
  - The Town of Falmouth began design of an upgrade to the Mill Creek Pump Station, which serves the Town of Cumberland. The service agreement with Falmouth was amended to increase the capacity that Cumberland will own in the pump station. This will ensure that Cumberland will be able 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.
  - In 2014, the flow split project was completed to further automate the plant's response to wet weather events and to ensure the facility meets effluent permit limits during these events.
  - An effluent chlorination system monitoring system was installed to continuously monitor the treated effluent. This has eliminated the need for daily readings and staff no longer is 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. This information will be 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 limits will 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.
  - 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 have guided the continued development of our long range capital improvement program.
- 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.
- East End Wastewater Treatment Plant
  - The design of a diffused air aeration system for the East End Treatment Facility was completed and the project has moved into the construction phase. The upgrade will replace the current 36 year old system and better meet our treatment objectives and permit compliance goals.
  - 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 3<sup>rd</sup> five-year term. A significant amount of PWD biosolids are now being composted for beneficial reuse.
  - 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 2016 permit renewal. If the current limits do not decrease the loading to the treatment plant, the ultimate design capacity may have to be revisited as the aeration system is designed and upgraded in 2014 – 2015.

## **2016 Projects and Initiatives**

### **B1 – Administration**

- We continue to monitor changing regulations related to phosphorus, nitrogen, and the primary bypass operation at the East End Wastewater Treatment Facility. These changes could result in significant future capital costs to meet the required treatment levels.
- Staff continues to work with the City of Portland to coordinate the operation of the City's Baxter Boulevard Wet Weather Flow Storage Conduit. Through staff efforts at both the City and PWD, the process of accepting flow from the conduit has been largely automated. PWD has identified staff resources to participate in ongoing and future design of the City's additional storage conduits.
- As part of the Peaks Island sewer expansion, PWD has worked with the City of Portland and MEDEP to identify and removed 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.
- Working with treatment and systems groups, and with the support of AMaP and Environmental Services, we continue to refine business practices with a goal of developing consistent departmental Standard Operating Procedures. A sampling plan that identified each sampling location was completed. Through a focused training effort, the plan was communicated to staff. This effort will continue, with a second phase taking place in late 2015. These efforts will ensure

efficient operations while making the transition of new staff into the Department more successful.

### **B3, B4, 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.
- The installation of a security system, operational adjustments, and changes to the required sampling program has reduced the need for overtime staffing to cover operator leave time. Additional areas continue to be added to the system to further monitor chemical storage areas and to monitor additional points of entry.
- 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.
- Staff continues to work to manage odors from our treatment facilities. The East End Treatment Facility has completed a number of projects, including the installation of a covered new sludge thickening process, to reduce possible odor sources. The ongoing aeration system upgrade will further reduce the potential for odors from the aeration system. These improvements should be realized once the 2 year project is completed in 2017. Staff responds to each odor inquiry by investigating possible causes, taking an available action, and contacting the individual who notified us of the odor concern.

## **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, B4, 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 8<sup>th</sup> 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.

## **Corporate Goal – Affordability**

### **B1 – Administration**

- Working with Engineering Services, the Operations team has implemented the bulk of the 2008 Energy Management Work Plan. Power use is monitored and managed to ensure efficient operations. The EEWWTF participates in electricity Demand Response through ISO New England and receives roughly \$7,000 for its participation.
- Work with operations staff to implement cost savings related to overtime and off-shift coverage.
- We continue to review staffing requirements at facilities. Weekend and overtime work has been carefully managed.

**B3, B4, 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 measure 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 ensure preventative maintenance tasks for each facility are in place. We've completed identification of assets and attribution of those assets at the Cape Elizabeth, Peaks Island, and Westbrook/Gorham Regional WWTFs. Work will continue at the East End Facility.

**Corporate Goal – Environment****B1 – Administration**

- Continue to monitor existing performance and developing regulations.

**B3, B4, L9 – Operations**

- Treatment and Systems teams work to ensure facilities operate in accordance to permit requirements.
- Through process control enhancements at the Peaks Island and Cape Elizabeth WWTF's, each plant is managing effluent nitrogen limits. While not currently required, the current 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.
- The target for effluent violations for permit exceedences has been reduced by over 10 per year in the past 3 years. Beginning in 2016, our goal will be 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.

**B3, B4, 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 will rotate through systems, treatment plants, the Asset Management and Planning department (AMaP), and the Water Services Department.

## **Financial Overview**

The Wastewater Services Group continues to operate with a goal of delivering effective services at reasonable costs to its member communities. Overall, the 2015 budget total includes an increase of \$70,169 to \$9,161,655. This is a 0.8% increase from the 2015 budget.

**Salaries/Wages:** Overall budgeted staffing levels were reduced by one position in the budget. Maintenance support for all treatment plants continues to come from the central treatment maintenance group at the East End treatment plant. Premium Pay has been further decreased by \$10,765 due to staffing optimization. Overall, this category is down \$17,960 or 0.8%.

**Biosolids Disposal:** The total budget for the disposal of biosolids generated from the treatment of wastewater has increased by \$2,854 in 2016 or 0.2%. The budgeted % Total Solid from the East End WWTF has been lowered slightly from 23.5% to 23.3% to reflect performance and biosolids production over the past several years. The Westbrook Region WWTF stays the same at 16.0%. Overall, biosolids production is projected to increase 2.3%. Offsetting that is an expected drop in the budgeted per unit disposal cost due to lower than anticipated CPI increase.

**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. The amount of polymer used at the East End WWTF has been increased to improve the effectiveness of the sludge dewatering process. Overall, polymer expense will increase \$69,750 or 38.3%. This increase is somewhat offset by lower costs for sodium hypochlorite and sodium bisulfate due to lower expected per unit costs. Overall, the total budget for chemicals has increased by \$38,010 or 5.7% from the 2015 budget.

**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 \$27,812, or 2.1%, to a total of \$1,373,470.

**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. Recent efficiency improvements include the window replacement and the new roof installation at the East End WWTF. Additionally, the boiler at the Peaks Island WWTF was replaced with a more efficient unit. Along with expect lower prices, heat and fuel oil costs have decreased by 10.6% or \$21,694 to a total of \$182,578.

**Purchased Power:** Based on usage trends related to energy use at the East End (associated with aeration) and an expected changes in the cost for power the overall energy budget has increased by \$15,192 or 1.2% in the 2016 budget.

**Transportation:** The hauling of liquid sludge from the Cape Elizabeth and Peaks Island WWTFs has been contracted with a private hauler. This has resulted in a reduction in the transportation budget. The 2016 budget total is \$299,620, a \$31,413 or 9.5% reduction from 2015.

## Wastewater Services: Total

### Financial Summary:

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Sub-Group:</b>						
B1 - Wastewater Administration	\$164,410	\$80,088	\$165,979	\$171,889	\$5,910	3.6%
B3 - East End Port WWTF	4,450,538	2,208,900	4,580,660	4,594,874	14,214	0.3%
B4 - Westbr/Cape/Peaks WWTF's	1,507,404	747,749	1,606,245	1,608,119	1,874	0.1%
L9 - Wastewater Systems	2,529,554	1,313,930	2,738,770	2,786,942	48,172	1.8%
<b>Grand Total</b>	<b>8,651,907</b>	<b>4,350,667</b>	<b>9,091,655</b>	<b>9,161,824</b>	<b>70,169</b>	<b>0.8%</b>
<b>Expense Type:</b>						
Salaries & Wages	2,086,681	1,005,691	2,145,104	2,127,144	-17,960	-0.8%
Employee Benefits	1,006,778	517,000	1,083,096	1,095,817	12,721	1.2%
Biosolids Disposal	1,462,622	734,920	1,387,398	1,390,252	2,854	0.2%
Chemicals	699,750	304,372	664,192	702,202	38,010	5.7%
Contracted Services	1,131,494	611,447	1,345,658	1,373,470	27,812	2.1%
Heat/Fuel Oil	178,339	159,052	204,272	182,578	-21,694	-10.6%
Insurance	42,239	22,584	45,192	42,977	-2,215	-4.9%
Materials & Supplies	342,188	135,194	382,038	403,792	21,754	5.7%
Other Expense	50,868	17,123	68,927	70,987	2,060	3.0%
Purchased Power	1,253,975	638,970	1,294,495	1,309,687	15,192	1.2%
Tele/Other Utilities	125,124	70,560	140,251	163,298	23,047	16.4%
Transportation	271,851	133,754	331,033	299,620	-31,413	-9.5%
<b>Grand Total</b>	<b>8,651,907</b>	<b>4,350,667</b>	<b>9,091,655</b>	<b>9,161,824</b>	<b>70,169</b>	<b>0.8%</b>
<b>Headcount:</b>						
Full-Time	39	39	39	38	-1	-2.6%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>38</b>	<b>-1</b>	<b>-2.6%</b>

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Salaries &amp; Wages</b>						
660111 - SALARIES/WAGES NON-UNION	286,411	145,843	294,627	304,110	9,483	3.2%
660121 - WAGES/REGULAR UNION	1,609,424	781,655	1,676,604	1,658,722	(17,882)	-1.1%
660122 - WAGES/OVERTIME UNION	123,857	55,448	118,067	111,944	(6,123)	-5.2%
660123 - WAGES/DOUBLETIME UNION	17,611	3,878	16,521	11,879	(4,642)	-28.1%
660124 - WAGES/STANDBY TIME UNION	33,126	15,795	32,079	33,282	1,203	3.8%
660131 - WAGES - REGULAR - TEMPS	6,594	3,072	7,207	7,207	-	0.0%
66014 - VACATION ACCRUAL	7,573	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	2,084	-	-	-	-	n/a
<b>Salaries &amp; Wages Total</b>	<b>2,086,681</b>	<b>1,005,691</b>	<b>2,145,104</b>	<b>2,127,144</b>	<b>(17,960)</b>	<b>-0.8%</b>
<b>Employee Benefits</b>						
660401 - FICA - EMPLOYERS' SHARE	156,268	75,429	164,100	162,730	(1,370)	-0.8%
660405 - SAFETY/WHY PROGRAM ITEMS	6,885	1,431	7,195	7,945	750	10.4%
660411 - MEALS ALLOWANCE	270	120	575	550	(25)	-4.3%
6604151 - FIELD UNIFORMS	-	95	-	100	100	n/a
660418 - STIPENDS	4,700	4,500	5,050	5,100	50	1.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	7,431	-	-	-	-	n/a
660491 - FRINGE BENEFITS-REG/SAL	831,223	435,425	906,175	919,392	13,217	1.5%
<b>Employee Benefits Total</b>	<b>1,006,778</b>	<b>517,000</b>	<b>1,083,096</b>	<b>1,095,817</b>	<b>12,721</b>	<b>1.2%</b>
<b>Biosolids Disposal</b>						
663571 - BIOSOLIDS DISPOSAL	1,462,622	734,920	1,387,398	1,390,252	2,854	0.2%
<b>Biosolids Disposal Total</b>	<b>1,462,622</b>	<b>734,920</b>	<b>1,387,398</b>	<b>1,390,252</b>	<b>2,854</b>	<b>0.2%</b>
<b>Chemicals</b>						
661811 - SODIUM BICARBONATE	11,445	9,054	12,474	12,474	-	0.0%
661812 - SODIUM BISULFITE	176,726	76,840	170,355	160,320	(10,035)	-5.9%
6618121 - SODIUM BISULFITE-ACCRUAL	2,216	1,677	687	-	(687)	-100.0%
66182 - CAUSTIC SODA	7,202	-	7,216	7,216	-	0.0%
66185 - SODIUM HYPOCHLORITE	280,510	117,516	284,264	268,519	(15,745)	-5.5%
661851 - SODIUM HYPO - ACCRUAL	6,152	(5,245)	1,167	-	(1,167)	-100.0%
66189 - POLYMER	239,271	103,628	181,923	251,673	69,750	38.3%
661891 - POLYMER - ACCRUAL	(23,823)	902	4,106	-	(4,106)	-100.0%
661899 - OTHER CHEMICALS	50	-	2,000	2,000	-	0.0%
<b>Chemicals Total</b>	<b>699,750</b>	<b>304,372</b>	<b>664,192</b>	<b>702,202</b>	<b>38,010</b>	<b>5.7%</b>
<b>Contracted Services</b>						
6631 - ENGINEERING SERVICES	48,571	12,194	81,000	97,500	16,500	20.4%
663521 - TRAFFIC CONTROL	-	-	300	300	-	0.0%
663525 - CONTRACTOR CONSTRUCTION	13,720	-	30,500	25,500	(5,000)	-16.4%
66353 - REPAIR SERVICES	3	47,034	4,000	13,000	9,000	225.0%
66354 - MAINTENANCE SERVICES	175,117	125,502	218,630	191,791	(26,839)	-12.3%
663543 - CSO FLOW MONITORING	131,619	37,829	180,775	186,007	5,232	2.9%
663544 - MAINT SERVICES - CCTV	60,662	2,813	65,250	60,000	(5,250)	-8.0%
663546 - MAINTENANCE - SNOW REMOVL	17,567	25,961	33,300	56,250	22,950	68.9%
663547 - WASTE SLUDGE TRANSPORT	8,969	10,637	21,462	21,462	-	0.0%
663551 - LAB ANALYSIS	-	284	2,300	2,400	100	4.3%
663561 - COMPUTER LICENSES	34,147	33,806	34,123	36,634	2,511	7.4%
663563 - COMPUTER CONSULTING/OTHER	-	133	-	-	-	n/a
663572 - GRIT & SCREENS DISPOSAL	66,150	22,656	73,950	73,950	-	0.0%
663573 - GREASE DISPOSAL	24,024	12,500	35,200	30,500	(4,700)	-13.4%
663574 - DISPOSAL SERVICES	13,007	5,219	14,818	14,818	-	0.0%
663585 - TREATMENT CONTRACT SERVIC	531,149	272,829	545,657	559,100	13,443	2.5%
6635851 - WW DEWATERING SERVICES	3,055	1,537	3,527	3,158	(369)	-10.5%
6635852 - WW DEWATERING SRVS CREDIT	(3,055)	(1,537)	(3,400)	(3,400)	-	0.0%
663587 - COURIER SERVICES	4,494	2,050	4,266	4,500	234	5.5%
663599 - MISC OTHER SERVICES	2,295	-	-	-	-	n/a
<b>Contracted Services Total</b>	<b>1,131,494</b>	<b>611,447</b>	<b>1,345,658</b>	<b>1,373,470</b>	<b>27,812</b>	<b>2.1%</b>

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Heat/Fuel Oil</b>						
66161 - HEATING OIL	\$52,080	\$30,178	\$47,326	\$38,702	(\$8,624)	-18.2%
661621 - PIPELINE DELIVERED PROPAN	110,694	104,915	128,178	113,952	(14,226)	-11.1%
661622 - CONTAINER DELIVERED	15,160	23,854	28,368	29,524	1,156	4.1%
66166 - UNLEADED GAS	405	106	400	400	-	0.0%
<b>Heat/Fuel Oil Total</b>	<b>178,339</b>	<b>159,052</b>	<b>204,272</b>	<b>182,578</b>	<b>(21,694)</b>	<b>-10.6%</b>
<b>Insurance</b>						
66599 - PROPERTY & BOILER INSUR	42,239	22,584	45,192	42,977	(2,215)	-4.9%
<b>Insurance Total</b>	<b>42,239</b>	<b>22,584</b>	<b>45,192</b>	<b>42,977</b>	<b>(2,215)</b>	<b>-4.9%</b>
<b>Materials &amp; Supplies</b>						
6619 - ASSET PURCHASES	61,836	22,017	91,000	100,500	9,500	10.4%
662017 - SAND AND SALT	-	-	200	-	(200)	-100.0%
66202 - TOOLS	7,191	1,460	7,300	7,600	300	4.1%
66203 - VENDOR PURCHASED SUPPLIES	169,155	67,259	205,900	206,650	750	0.4%
662041 - MATERIALS INVENTORY	52,222	18,859	27,975	33,875	5,900	21.1%
662042 - SUPPLIES INVENTORY	28,496	11,453	25,725	26,525	800	3.1%
662043 - TOOL INVENTORY	13,933	8,090	11,875	12,575	700	5.9%
66204301 - INVENTORY - TONER	-	-	250	200	(50)	-20.0%
66204302 - INVENTORY - PAPER	-	186	350	225	(125)	-35.7%
66204303 - INVENTORY-COMPUTER EQUIP	3,710	2,073	750	2,216	1,466	195.5%
662046 - HYDRANT INVENTORY	1	-	-	-	-	n/a
662047 - GARAGE INVENTORY	1,068	813	2,075	2,025	(50)	-2.4%
66205 - CONSUMABLE SUPPLIES	247	98	2,125	1,650	(475)	-22.4%
66206 - COMPUTER RELATED EQUIP	-	2,884	6,513	9,751	3,238	49.7%
663564 - COMPUTER-RELATED EQUIP	4,328	-	-	-	-	n/a
<b>Materials &amp; Supplies Total</b>	<b>342,188</b>	<b>135,194</b>	<b>382,038</b>	<b>403,792</b>	<b>21,754</b>	<b>5.7%</b>
<b>Other Expense</b>						
6642 - EQUIPMENT RENT	497	305	500	500	-	0.0%
66609 - OTHER ADVERTISING	266	-	-	-	-	n/a
6675111 - INSTATE TRAINING	10,051	3,695	10,700	10,700	-	0.0%
6675112 - OUT OF STATE TRAINING	365	-	6,400	6,300	(100)	-1.6%
6675121 - IN STATE CONFERENCES	1,767	652	5,300	5,300	-	0.0%
6675122 - OUT-OF-STATE CONFERENCES	7,245	2,630	3,850	4,350	500	13.0%
667513 - DUES	8,347	2,550	13,100	12,800	(300)	-2.3%
667514 - PROFESSIONAL LICENSES	2,382	1,500	2,130	2,430	300	14.1%
667515 - PERIODICAL SUBSCRIPTIONS	-	559	250	250	-	0.0%
667516 - PERMITS	24,353	6,759	26,032	26,532	500	1.9%
667517 - PLANT OPER LICENSE FEES	-	-	525	75	(450)	-85.7%
667518 - REGULATORY REQUIRED FEES	11,853	-	14,000	14,000	-	0.0%
667521 - POSTAGE - THIRD PARTY	27	-	62	75	13	21.0%
667522 - POSTAGE - INTERNAL	126	3,053	100	100	-	0.0%
667523 - POSTAGE - EXPRESS DELIVER	8	-	378	350	(28)	-7.4%
667552 - SAFETY TRAINING	-	245	-	1,600	1,600	n/a
667555 - SAFETY EXPENSES	1,688	4,325	5,900	5,925	25	0.4%
667556 - FREIGHT CHARGES (STOCK)	463	-	100	100	-	0.0%
667581 - ANNUAL LAND CONTRIB CAPE	2,500	2,500	2,500	2,500	-	0.0%
667591 - UNIFORMS	876	-	-	-	-	n/a
667592 - FOOD SUPPLIES	411	50	500	500	-	0.0%
667599 - OTHER MISCELLANEOUS	1,043	-	-	-	-	n/a
6676 - RENT/CAPITAL OFFSET	(23,400)	(11,700)	(23,400)	(23,400)	-	0.0%
<b>Other Expense Total</b>	<b>50,868</b>	<b>17,123</b>	<b>68,927</b>	<b>70,987</b>	<b>2,060</b>	<b>3.0%</b>



	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Purchased Power</b>						
66151 - POWER - LARGE ENERGY	475,001	249,751	513,399	484,128	(29,271)	-5.7%
66152 - POWER - LARGE T&D	324,317	143,878	313,997	344,899	30,902	9.8%
66153 - POWER - MEDIUM ENERGY	227,274	129,690	240,796	241,583	787	0.3%
66154 - POWER - MEDIUM T&D	155,333	70,687	149,092	157,290	8,198	5.5%
66155 - POWER - SMALL ENERGY	36,047	25,902	44,012	45,166	1,154	2.6%
66156 - POWER - SMALL T&D	41,687	23,597	40,198	42,201	2,003	5.0%
66157 - POWER - OTHER CHARGES	-	51	-	120	120	n/a
66158 - LOAD RESPONSE	(5,685)	(4,585)	(7,000)	(5,700)	1,300	-18.6%
<b>Purchased Power Total</b>	<b>1,253,975</b>	<b>638,970</b>	<b>1,294,495</b>	<b>1,309,687</b>	<b>15,192</b>	<b>1.2%</b>
<b>Tele/Other Utilities</b>						
66101 - WATER	104,101	60,433	120,745	119,744	(1,001)	-0.8%
66102 - WASTEWATER	977	-	-	1,500	1,500	n/a
66103 - STORMWATER CHARGES	-	-	-	17,062	17,062	n/a
66111 - TELEPHONE LINES	-	-	1,340	200	(1,140)	-85.1%
66112 - DATA LINES	10,289	5,356	8,857	15,630	6,773	76.5%
66113 - CELLULAR PHONES	8,907	4,024	8,607	8,460	(147)	-1.7%
66114 - PAGERS	850	747	702	702	-	0.0%
<b>Tele/Other Utilities Total</b>	<b>125,124</b>	<b>70,560</b>	<b>140,251</b>	<b>163,298</b>	<b>23,047</b>	<b>16.4%</b>
<b>Transportation</b>						
66501 - TRANSPORTATION - INTERNAL	186,003	71,356	195,997	200,465	4,468	2.3%
665019 - TRANS INTERNAL INACTIVE	71,507	55,037	120,391	84,111	(36,280)	-30.1%
66502 - TRANSPORTATION - EXTERNAL	13,604	6,602	13,300	13,300	-	0.0%
66503 - MILEAGE REIMBURSEMENT	737	759	1,344	1,744	400	29.8%
<b>Transportation Total</b>	<b>271,851</b>	<b>133,754</b>	<b>331,033</b>	<b>299,620</b>	<b>(31,413)</b>	<b>-9.5%</b>
<b>Grand Total</b>	<b>8,651,907</b>	<b>4,350,667</b>	<b>9,091,655</b>	<b>9,161,824</b>	<b>70,169</b>	<b>0.8%</b>

## Wastewater Services: Wastewater Administration (B1)

### Financial Summary:

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$98,621	\$47,989	\$96,618	\$100,054	\$3,436	3.6%
Employee Benefits	50,498	26,068	52,006	54,719	2,713	5.2%
Contracted Services	0	0	500	500	0	0.0%
Materials & Supplies	210	68	325	400	75	23.1%
Other Expense	13,628	5,089	14,605	14,605	0	0.0%
Tele/Other Utilities	1,070	397	1,756	960	-796	-45.3%
Transportation	383	477	169	651	482	285.2%
<b>Grand Total</b>	<b>164,410</b>	<b>80,088</b>	<b>165,979</b>	<b>171,889</b>	<b>5,910</b>	<b>3.6%</b>
<b>Programs:</b>						
45 - WW Treatment	126	0	0	0	0	n/a
98 - Training	12,889	7,753	5,640	5,944	304	5.4%
99 - Administration	151,395	72,335	160,339	165,945	5,606	3.5%
<b>Grand Total</b>	<b>164,410</b>	<b>80,088</b>	<b>165,979</b>	<b>171,889</b>	<b>5,910</b>	<b>3.6%</b>
<b>Funds:</b>						
10 - General	88	14	0	0	0	n/a
50 - Wastewater General	164,196	80,074	165,979	171,889	5,910	3.6%
57 - WW Portland	126	0	0	0	0	n/a
<b>Grand Total</b>	<b>164,410</b>	<b>80,088</b>	<b>165,979</b>	<b>171,889</b>	<b>5,910</b>	<b>3.6%</b>
<b>Headcount:</b>						
Full-Time	1	1	1	1	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0.0%</b>

## Wastewater Services: East End Treatment Plant - Portland (B3)

### Financial Summary:

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$1,009,036	\$474,777	\$1,032,917	\$995,481	-\$37,436	-3.6%
Employee Benefits	478,200	239,047	515,435	505,515	-9,920	-1.9%
Biosolids Disposal	1,118,343	560,768	1,037,996	1,039,568	1,572	0.2%
Chemicals	610,479	262,822	554,021	612,990	58,969	10.6%
Contracted Services	184,420	125,742	254,283	255,152	869	0.3%
Heat/Fuel Oil	118,865	119,654	143,798	129,811	-13,987	-9.7%
Insurance	14,622	7,295	15,664	14,589	-1,075	-6.9%
Materials & Supplies	146,540	62,719	204,400	212,029	7,629	3.7%
Other Expense	16,444	-4,904	29,340	29,550	210	0.7%
Purchased Power	649,218	314,752	688,341	680,243	-8,098	-1.2%
Tele/Other Utilities	57,407	26,656	68,018	85,256	17,238	25.3%
Transportation	46,963	19,571	36,447	34,690	-1,757	-4.8%
<b>Grand Total</b>	<b>4,450,538</b>	<b>2,208,900</b>	<b>4,580,660</b>	<b>4,594,874</b>	<b>14,214</b>	<b>0.3%</b>
<b>Programs:</b>						
44 - WW Pumping	6,227	5,750	0	0	0	n/a
45 - WW Treatment	4,114,383	2,060,746	4,312,851	4,322,109	9,258	0.2%
98 - Training	80,955	27,653	64,285	66,318	2,033	3.2%
99 - Administration	248,974	114,752	203,525	206,447	2,922	1.4%
<b>Grand Total</b>	<b>4,450,538</b>	<b>2,208,900</b>	<b>4,580,660</b>	<b>4,594,874</b>	<b>14,214</b>	<b>0.3%</b>
<b>Funds:</b>						
10 - General	1,731	9	0	0	0	n/a
20 - Water General	14,743	0	0	0	0	n/a
50 - Wastewater General	327,256	142,395	267,809	272,765	4,956	1.9%
51 - WW Cape Elizabeth	36,364	6,548	41,334	37,439	-3,895	-9.4%
53 - WW Cumberland	115	0	0	0	0	n/a
57 - WW Portland	3,990,330	2,041,604	4,167,168	4,186,364	19,196	0.5%
64 - WW Joint Westbrook	52,287	10,561	64,332	64,724	392	0.6%
65 - WW Joint LF	13	0	0	0	0	n/a
66 - WW Peaks Island	27,701	7,783	40,018	33,582	-6,436	-16.1%
<b>Grand Total</b>	<b>4,450,538</b>	<b>2,208,900</b>	<b>4,580,660</b>	<b>4,594,874</b>	<b>14,214</b>	<b>0.3%</b>
<b>Headcount:</b>						
Full-Time	19	19	19	18	-1	-5.3%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>18</b>	<b>-1</b>	<b>-5.3%</b>

## Wastewater Services: Westbrook Regional/Cape Elizabeth, and Peaks Island Treatment Plants (B4)

### Financial Summary:

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$311,966	\$152,260	\$327,925	\$325,529	-\$2,396	-0.7%
Employee Benefits	155,809	78,768	163,618	169,406	5,788	3.5%
Biosolids Disposal	344,279	174,152	349,402	350,684	1,282	0.4%
Chemicals	89,270	41,550	110,171	89,212	-20,959	-19.0%
Contracted Services	272,757	130,716	296,809	318,918	22,109	7.4%
Heat/Fuel Oil	45,842	30,505	47,553	39,222	-8,331	-17.5%
Insurance	6,327	3,156	6,773	6,311	-462	-6.8%
Materials & Supplies	58,524	23,158	66,500	67,975	1,475	2.2%
Other Expense	8,945	8,837	12,932	12,532	-400	-3.1%
Purchased Power	148,367	74,183	154,851	158,618	3,767	2.4%
Tele/Other Utilities	25,038	10,669	27,790	29,340	1,550	5.6%
Transportation	40,280	19,795	41,922	40,372	-1,550	-3.7%
<b>Grand Total</b>	<b>1,507,404</b>	<b>747,749</b>	<b>1,606,245</b>	<b>1,608,119</b>	<b>1,874</b>	<b>0.1%</b>
<b>Programs:</b>						
44 - WW Pumping	8,212	4,720	0	7,796	7,796	n/a
45 - WW Treatment	1,387,446	680,958	1,503,958	1,477,108	-26,850	-1.8%
98 - Training	22,437	16,255	19,957	28,983	9,026	45.2%
99 - Administration	89,309	45,816	82,331	94,232	11,901	14.5%
<b>Grand Total</b>	<b>1,507,404</b>	<b>747,749</b>	<b>1,606,245</b>	<b>1,608,119</b>	<b>1,874</b>	<b>0.1%</b>
<b>Funds:</b>						
10 - General	708	3	0	0	0	n/a
50 - Wastewater General	111,038	62,068	102,287	123,215	20,928	20.5%
51 - WW Cape Elizabeth	316,094	167,551	372,997	368,013	-4,984	-1.3%
57 - WW Portland	3,854	1,830	11,021	9,632	-1,389	-12.6%
62 - WW Westbrook	3,841	2,126	0	3,898	3,898	n/a
64 - WW Joint Westbrook	920,916	447,816	941,193	936,591	-4,602	-0.5%
66 - WW Peaks Island	150,953	66,354	178,747	166,770	-11,977	-6.7%
<b>Grand Total</b>	<b>1,507,404</b>	<b>747,749</b>	<b>1,606,245</b>	<b>1,608,119</b>	<b>1,874</b>	<b>0.1%</b>
<b>Headcount:</b>						
Full-Time	6	6	6	6	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>0</b>	<b>0.0%</b>

## Wastewater Services: Wastewater Systems (L9)

### Financial Summary:

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$667,058	\$330,665	\$687,644	\$706,080	\$18,436	2.7%
Employee Benefits	322,270	173,117	352,036	366,177	14,141	4.0%
Contracted Services	674,317	354,988	794,066	798,900	4,834	0.6%
Heat/Fuel Oil	13,632	8,894	12,921	13,545	624	4.8%
Insurance	21,290	12,134	22,755	22,077	-678	-3.0%
Materials & Supplies	136,914	49,248	110,813	123,388	12,575	11.3%
Other Expense	11,851	8,101	12,050	14,300	2,250	18.7%
Purchased Power	456,389	250,034	451,303	470,826	19,523	4.3%
Tele/Other Utilities	41,608	32,838	42,687	47,742	5,055	11.8%
Transportation	184,225	93,911	252,495	223,907	-28,588	-11.3%
<b>Grand Total</b>	<b>2,529,554</b>	<b>1,313,930</b>	<b>2,738,770</b>	<b>2,786,942</b>	<b>48,172</b>	<b>1.8%</b>
<b>Programs:</b>						
39 - Compost Site	1,819	794	2,000	2,000	0	0.0%
44 - WW Pumping	1,721,152	867,533	1,915,544	1,959,326	43,782	2.3%
45 - WW Treatment	350,647	188,726	366,308	374,972	8,664	2.4%
90 - Vehicles	28,571	23,178	31,211	33,795	2,584	8.3%
95 - Douglass Street	11,381	8,078	9,910	12,778	2,868	28.9%
98 - Training	55,880	25,276	58,979	66,787	7,808	13.2%
99 - Administration	360,105	200,344	354,818	337,284	-17,534	-4.9%
<b>Grand Total</b>	<b>2,529,554</b>	<b>1,313,930</b>	<b>2,738,770</b>	<b>2,786,942</b>	<b>48,172</b>	<b>1.8%</b>
<b>Funds:</b>						
10 - General	32,788	19,913	21,363	25,560	4,197	19.6%
20 - Water General	7,518	5,358	4,064	9,761	5,697	140.2%
50 - Wastewater General	456,505	259,064	465,851	459,724	-6,127	-1.3%
51 - WW Cape Elizabeth	258,473	133,546	305,225	303,395	-1,830	-0.6%
53 - WW Cumberland	540,609	259,638	522,675	543,240	20,565	3.9%
55 - WW Windham LF	25,659	13,871	30,997	33,484	2,487	8.0%
57 - WW Portland	733,823	408,582	873,823	864,619	-9,204	-1.1%
61 - WW Gorham	155,951	50,295	147,157	159,545	12,388	8.4%
62 - WW Westbrook	131,792	50,370	159,672	160,514	842	0.5%
64 - WW Joint Westbrook	92,312	55,969	102,116	108,231	6,115	6.0%
65 - WW Joint LF	34,911	28,786	52,529	55,027	2,498	4.8%
66 - WW Peaks Island	59,214	28,540	53,297	63,842	10,545	19.8%
<b>Grand Total</b>	<b>2,529,554</b>	<b>1,313,930</b>	<b>2,738,770</b>	<b>2,786,942</b>	<b>48,172</b>	<b>1.8%</b>
<b>Headcount:</b>						
Full-Time	13	13	13	13	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>0</b>	<b>0.0%</b>

## Environmental Services

### Updated Sebago Lake Map



Sebago Lake is one of Maine's most valuable resources and its popularity is such that it is an iconic image in people's minds. The District's Sebago Lake Map has long been our most popular outreach tool. We often have folks come to into our office requesting one and telling us that they have collected all of our previous versions. In 2015, the source protection group contracted with a photographer in an effort to capture the entirety of Sebago Lake in one photo. The new map is essentially that photo on one side and a variety of useful Sebago Lake information on the other. Part of that useful information includes a map showing depth contours, significant landmarks, marinas, campgrounds, and the 3000 ft. no trespassing area and the two mile no bodily contact zone around the intakes that are in place to help protect the water supply.

Every year, the District distributes about 5,000 Sebago Lake Maps. It is by far our most popular publication. From native Maine fishermen to seasonal property owners, to the many folks that just come to the lake for a brief stay at a resort or even a day on the beach, the map is a staple of their visit to Sebago Lake. It also generates many visits to the Lake Office – each of which is an outreach opportunity.

## 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

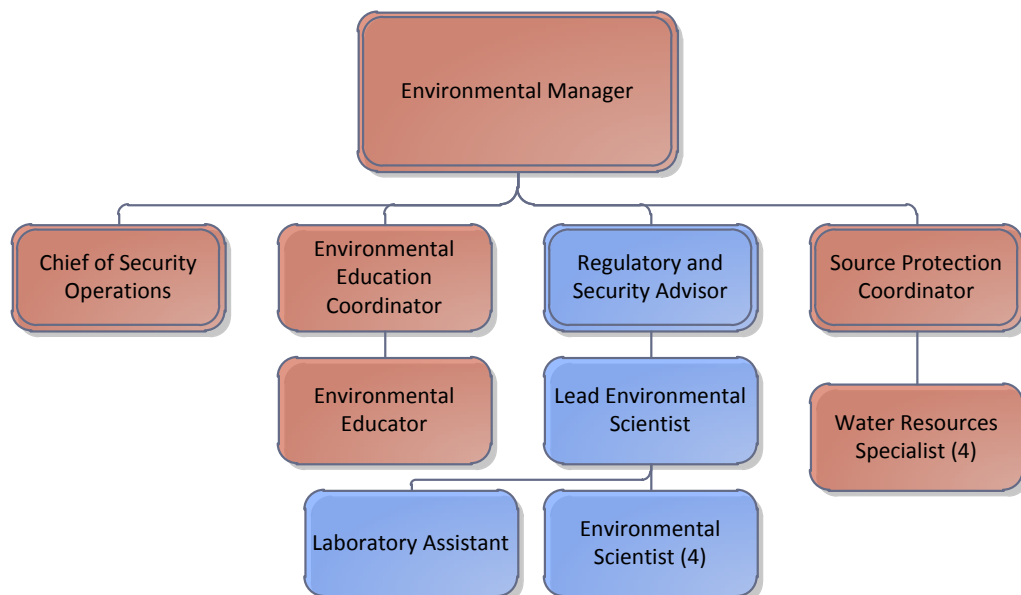
Environmental Services provides services in five core areas:

#### **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.

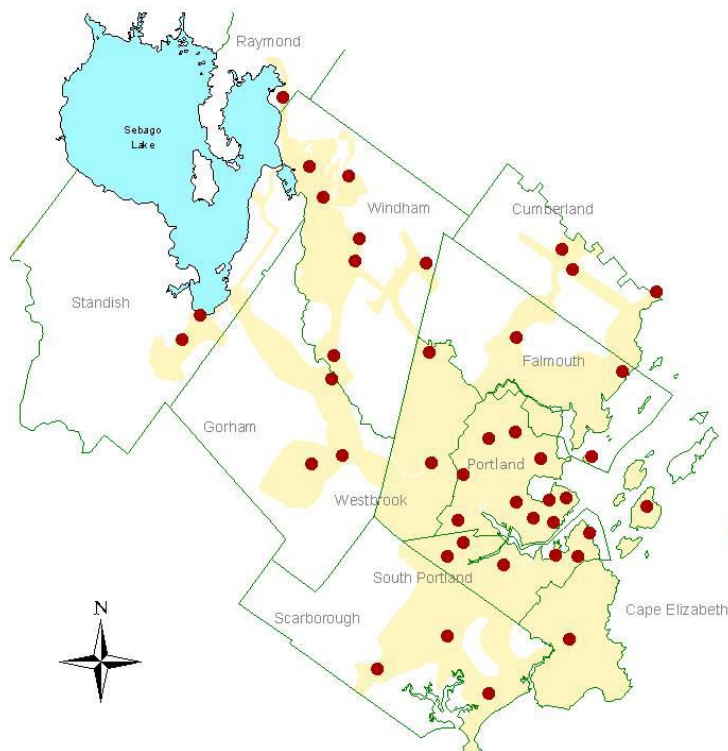
#### **Laboratory Services Group (L6; blue in organization chart)**

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: 450

Students and Adults Impacted by Education and Outreach programs: More than 3,800 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: 67

Average Annual Water Quality Inquiries: 315

IPT Industries Regulated: 42

## Performance Benchmarks

Corporate Goals – Public Health and Environment	2014 Actual	2015 Projected	2016 Goal
Verified Water Quality Inquiries	74	43	40
Shore Land Zone Inspections	441	400	450
Watershed Properties Improved or Recommendations Made	22	20	25
Lower Bay Water Violations	127	63	75
Land Reserve Day Use Visitors	20,167	25,000	27,500
Land Reserve Violations	151	160	150
Visitors per Land Reserve Violation	143	160	150
Certified Laboratory Analytes	38	70	67
Students served monthly by HydroLogics In-School Program	1119	1000	1000

## **Past Accomplishments:**

### **Source Protection since 2000:**

- Completed more than 8,100 watershed inspections.
- Made recommendations for improvements to more than 500 watershed properties
- Directed water quality-related improvements to more than 200 properties.
- Awarded more than \$240,000 in Lake Stewards Grants which leveraged more than \$550,000 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 148 large developments and, when necessary, provided planning board feedback in an effort to minimize the impact of these projects.
- Responded to 434 complaints, 250 of which prevented or mitigated environmental violations and/or pollution.
- Contributed more than \$488,000 to assist in the conservation by area land trusts of about 3700 acres of land in the watershed.

### **Education and Outreach since 2000:**

- Produced 23 Watershed News newsletters and 4 State of the Lake reports.
- Distributed more than 46,000 Sebago Lake maps and 10,000 “Images of Sebago Lake” calendars to watershed residents and visitors.
- Distributed more than 80,000 brochures and fact sheets to watershed residents and visitors
- Taught water principles to approximately 14,000 middle school-aged students through our HydroLogics in-school education program.
- Provided environmental education to approximately 18,300 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 16,081 hours combined.
- Patrolled the Sebago lake Land Reserve by using an all terrain vehicle (Extended Security patrol) for approximately 770 hours combined.
- Issued more than 1,396 warnings for violation of water contact regulations
- Recorded almost 100,000 day-use visits to the Sebago Lake Land Reserve.
- Issued more than 2,040 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 271 water quality inquiries in 2013 and 357 in 2014.

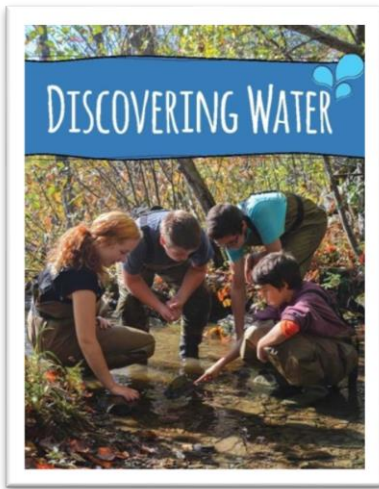
### **Past Accomplishments (continued)**

- 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.

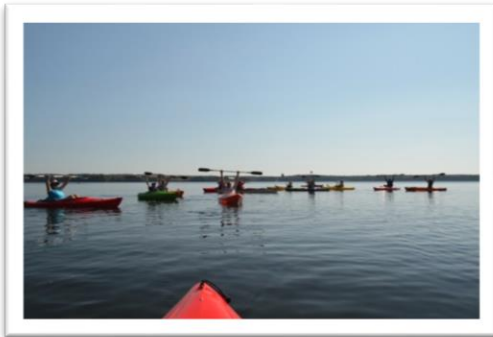
### **Budget Year 2015 Highlights:**

- Continued implementation of the Board's 2013 Watershed Land Conservation Program. The District approved \$38,435 to help conserve over 90 acres of land in 2015.
- Utilized District funding of \$269,000 - approved in 2014 – to support the conservation of 800 acres of upper watershed land along the Crooked River.
- Began implementation of the Pipeline Action Plan including pipeline awareness and spill response outreach to watershed first responders in five towns in the upper watershed.
- Utilizing \$41,500 in federal non-point source grant funding, worked with Cumberland County Soil and Water District to complete a Watershed Management Plan for Sebago Lake.
- Worked with the Town of Standish Beach Committee to provide technical assistance for the design and approval of a town swimming beach on District property on Sebago Lake.
- Developed methods to test soil corrosivity - "hot soils" - to support main repair/replacement program.
- Analyzed wastewater samples to support the pending Westbrook-Gorham WTWTF aeration project.
- Monitored Greater Portland drinking water in an effort to identify any unintended WQ changes resulting from the new treatment response exercise.
- Completed construction of an amphitheater within the Land Reserve to accommodate educational and outreach events.
- Along with Windham High School students and staff, published "Discovering Water." Over the past two and a half years, WHS students researched, wrote, illustrated, and took photographs for and conceptually designed the book as a learning tool for middle school students engaged in PWD's monthly HydroLogics program.
- Hosted six outdoor outreach events – in collaboration with nine community partners – which included kayaking on Sebago Lake, a three-part snowshoe series, vernal pool exploration, and the third annual Trail Day on the Sebago Lake Land Reserve.
- Revised our HydroLogics curriculum substantially, implementing three new lessons and significantly revising two others, in order to connect and enhance our focus on local water quality impacts and remediation strategies. Lessons were evaluated for consistency with new national science standards.

## 2015 Highlights



Published "Discovering Water," a book produced by Windham High School students to compliment PWD's HydroLogics program



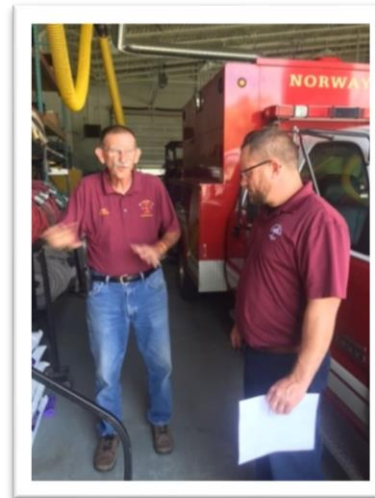
Hosted six outdoor outreach events, including the third annual Trail Day, reaching a larger audience than ever before



Revised HydroLogics curriculum substantially, emphasizing impacts to local water quality and stewardship



Completed a vulnerability assessment of the Greater Portland drinking water system

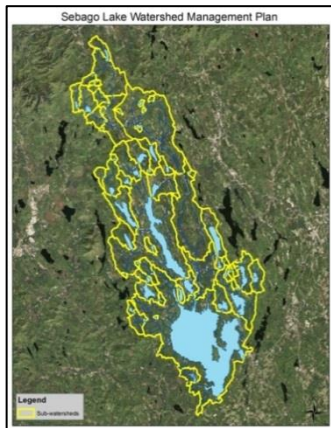


Met with five watershed fire departments along the pipeline corridor, planned for a tabletop spill response exercise and a first responder training event

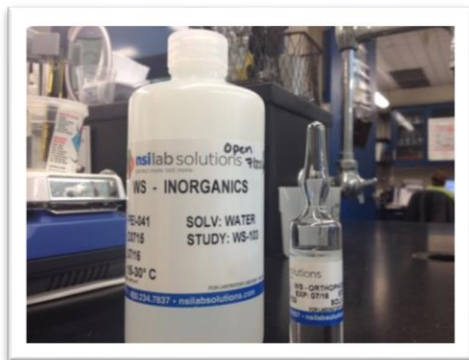


Constructed an amphitheater, improved trails, added benches, and improved one parking area in the Sebago Lake Land Reserve

## 2015 Highlights



Worked with CCSWD to complete a Watershed Management Plan for Sebago Lake.



Achieved 100% acceptance on all performance testing samples required for lab certification.

## **2016 Projects and Initiatives**

### **General**

- Work with Administrative Facility Chief Operator to complete office space renovation plan for the Ecology Center.

### **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.
- Apply for federal non-point source funding for watershed improvement projects based on the newly completed 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 trail stewardship remains in accordance with District security/land use policies.
- Continue to work with Portland Pipeline to ensure pipeline spill response contractors and watershed emergency response agencies are prepared in the event of a pipeline spill in the watershed.

### **Environmental Laboratories and Industrial Pretreatment**

- Maintain certification for testing methods at East End and Sebago Lake laboratories for all analytes reportable to state regulators.
- Report on water quality inquiries at dead end locations.
- Conclude Round #2 monitoring for Cryptosporidium per LT2 drinking water regulation
- 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.
- Provide analytical support for ultraviolet light pilot test at Cape Elizabeth WWTF.
- Provide nitrogen monitoring at wastewater facilities to support nutrient testing program.



## **2016 Projects and Initiatives (continued)**

### **District Security**

- 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.
- Patrol Sebago Lake Land Reserve year-round to ensure compliance with District land use policy.
- Increase patrol of the Otter Pond Parcel of the Sebago Lake Land Reserve in an effort to address the growing number of visitors.
- 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 237 kiosk.
- Investigate District business continuity planning needs (Continuity of Operations Plan)
- Perform facility security audits

### **Environmental Education and Outreach**

- Hire and train a full time, permanent environmental educator who will replace two temporary staff.
- Publish a revised "Lakes Like Less Lawn" booklet for shorefront property owners about landscaping for water quality.
- Maintain 2015 level of HydroLogics and TroutKids programs in watershed and service area schools.
- Evaluate current education programming to ensure consistency with new national science standards (Next Generation Science Standards), best practices, and teacher feedback.
- 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 2016 Staffing Changes:**

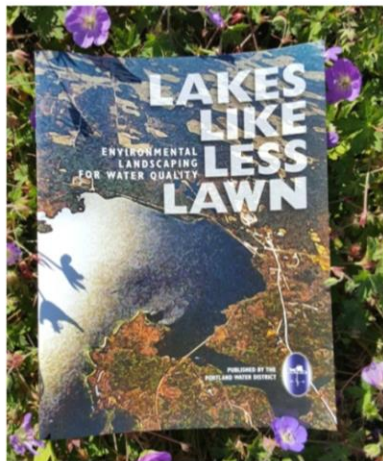
- This 2016 budget for L6 is the first to include a full year of funding of the Laboratory Assistant position which replaced a higher paid scientist position. This staffing change was made mid-year 2015.
- The 2016 budget for A5 includes a permanent educator position which would replace the two temporary educator positions which have been used to meet the needs of the program for more than 10 years. Before that the staffing of the twenty-year-old in-school education program involved a combination of temporary staff, contract staff, and AmeriCorps staff. Changes in how the work is organized and in how services are delivered to the schools will allow us to continue to serve as many students as we have. We also plan to add summer outreach programming during June, July and August.



## 2016 Projects and Initiatives



Hire and train a permanent, year-round environmental educator



Publish a second edition of “Lakes Like Less Lawn,” a booklet for shorefront property owners about landscaping for water quality



Redesign and improve kiosk parking lot in the Sebago Lake Land Reserve

### WHOLE EFFLUENT TOXICITY

Comply with rigorous “screening year” monitoring as required by WWTF permits



Increase security presence on Sebago Lake Land Reserve



Increase investment in Lakescaping projects



Complete office space renovation plan for the Ecology Center



Conclude Round 2 Cryptosporidium monitoring per LT2 drinking water regulation

2016 Targeted Grants to Watershed Partners			
2015 Proposed	Type	Recipient	Purpose
\$4,350	Service Learning Project	Cumberland County Soil & Water Conservation District	Environmental Education
<i>Support for a service learning project in a school that recently completed a year of HydroLogics. Students will learn one water-related topic in-depth and provide a related service to their community. This program will also increase local program effectiveness through partner collaboration.</i>			
\$1,500	Teacher Support Grants	Maine Educators	Environmental Education
<i>Provides teaching resources to local teachers to support water education.</i>			
\$17,000	Lakescaping Grants	Watershed property owners, businesses	Source Protection
<i>Grants of up to \$1,000 are made to individual property owners and up to \$2,000 to businesses, associations, or municipalities for implementing erosion and sedimentation control BMPs based on our recommendations. A 50-50 match is required.</i>			
\$1,250	Lakes Protection Support	Maine Lakes Society	Advocacy
<i>A contribution of \$1,250 to Maine Lakes Society to support their operations. Their advocacy benefits all surface supplies including PWD.</i>			
\$1,250	Lake Protection Support	Volunteer Lakes Monitoring Program	Advocacy, Monitoring
<i>A contribution of \$1,250 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>			
\$14,000	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>			
\$1,250	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>			

2016 Targeted Grants to Watershed Partners (Continued)			
2015 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>			
<b>\$45,150</b>	<b>Total Grant Support to Watershed Partners</b>		

All Grants are subject to Board of Trustee approval.

Land Purchased with Conservation Easement with Portland Water District's Contribution			
Year	Projects	Acres	Amount
2006	1	66	\$6,000
2008	1	350	\$5,000
2009	1	23	\$500
2010	1	60	\$10,000
2011	1	690	\$9,250
2012	2	116	\$6,900
2013	4	1,005	\$68,990
2014	4	1,301	\$346,443
2015	2	91	\$38,435

## **Financial Overview**

The overall Environmental Services budget is up \$40,524 from the 2015 budget, an increase of 2.1%. Of that total about \$28,000 is for employee wages and benefits.

### **A5: Water Resources**

- The most significant change in the A5 budget is the increase in Salary & Wages and Employee benefits – much of which is the result of adding one permanent position and eliminating two temporary ones.
- There is an increase of \$2000 (from \$15,000 to \$17,000) in the amount budgeted for the Lakescaping Program. This program provides support for landowners making lake friendly improvements to their properties and requires at least a 1:1 landowner match.
- This budget divides some of the operating costs allocated for Lower Bay security (water) from those allocated for security of the land reserve (land). Neither program will be significantly different, this is just to begin to capture the costs separately.

### **L6: Laboratory Services**

- The budget for Professional Licenses is increased by more than \$3,000 because the laboratories are required to be licensed every other year and 2016 is a renewal year.
- The lab analysis budget is increased by more than \$10,000 to cover the cost of required monitoring for cryptosporidium on the water side and Whole Effluent Toxicity and Industrial Pretreatment samples on the wastewater side. All these analyses are required by regulation.
- Asset purchase increases of \$8,000 for purchase of a laboratory-grade BOD glassware washer at East end lab.
- The “Salaries & Wages” and “Employee Benefits” budgets are lower in part because we are budgeting for 4 environmental scientists and 1 laboratory assistant instead of 5 scientists.

**Environmental Services: Total****Financial Summary:**

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Sub-Group:</b>						
A5 - Water Resources	\$1,015,280	\$467,875	\$1,052,393	\$1,080,912	\$28,519	2.7%
L6 - Water/WW Laboratory	822,682	410,773	847,048	859,053	12,005	1.4%
<b>Grand Total</b>	<b>1,837,962</b>	<b>878,648</b>	<b>1,899,441</b>	<b>1,939,965</b>	<b>40,524</b>	<b>2.1%</b>
<b>Expense Type:</b>						
Salaries & Wages	946,719	450,999	952,841	962,044	9,203	1.0%
Employee Benefits	435,633	221,224	460,474	479,282	18,808	4.1%
Chemicals	4,984	1,583	4,006	4,010	4	0.1%
Contracted Services	117,601	58,475	136,019	134,506	-1,513	-1.1%
Heat/Fuel Oil	16,597	5,884	15,809	15,515	-294	-1.9%
Insurance	2,322	1,161	2,554	2,322	-232	-9.1%
Materials & Supplies	109,443	44,883	108,288	112,251	3,963	3.7%
Other Expense	162,495	65,783	161,230	171,635	10,405	6.5%
Purchased Power	2,939	1,364	2,923	3,190	267	9.1%
Tele/Other Utilities	4,375	1,987	4,700	6,402	1,702	36.2%
Transportation	34,854	25,305	50,597	48,808	-1,789	-3.5%
<b>Grand Total</b>	<b>1,837,962</b>	<b>878,648</b>	<b>1,899,441</b>	<b>1,939,965</b>	<b>40,524</b>	<b>2.1%</b>
<b>Headcount:</b>						
Full-Time	14	14	14	15	1	7.1%
Part-Time	1	1	1	1	0	0.0%
<b>Total</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>16</b>	<b>1</b>	<b>6.7%</b>

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Salaries &amp; Wages</b>						
660111 - SALARIES/WAGES NON-UNION	\$314,911	\$157,679	\$320,574	\$348,563	\$27,989	8.7%
660121 - WAGES/REGULAR UNION	500,393	236,088	508,286	503,760	(4,526)	-0.9%
660122 - WAGES/OVERTIME UNION	22,822	15,409	22,511	24,778	2,267	10.1%
660123 - WAGES/DOUBLETIME UNION	5,237	2,262	6,654	5,869	(785)	-11.8%
660131 - WAGES - REGULAR - TEMPS	90,797	39,561	94,816	79,074	(15,742)	-16.6%
660132 - WAGES - OVERTIME- TEMPS	35	-	-	-	-	n/a
66014 - VACATION ACCRUAL	8,245	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	4,279	-	-	-	-	n/a
<b>Salaries &amp; Wages Total</b>	<b>946,719</b>	<b>450,999</b>	<b>952,841</b>	<b>962,044</b>	<b>9,203</b>	<b>1.0%</b>
<b>Employee Benefits</b>						
660401 - FICA - EMPLOYERS' SHARE	70,064	33,905	72,892	73,598	706	1.0%
660403 - LIFE INSURANCE	1,200	-	-	-	-	n/a
660405 - SAFETY/WHY PROGRAM ITEMS	2,732	638	3,455	3,555	100	2.9%
660411 - MEALS ALLOWANCE	-	7	-	-	-	n/a
6604151 - FIELD UNIFORMS	-	-	1,200	1,200	-	0.0%
660418 - STIPENDS	1,800	1,500	1,900	1,700	(200)	-10.5%
660419 - EMPLOYEE BENEFITS-MISC OTH	2,544	5	-	-	-	n/a
660491 - FRINGE BENEFITS-REG/SAL	357,293	185,170	381,027	399,229	18,202	4.8%
<b>Employee Benefits Total</b>	<b>435,633</b>	<b>221,224</b>	<b>460,474</b>	<b>479,282</b>	<b>18,808</b>	<b>4.1%</b>
<b>Chemicals</b>						
661899 - OTHER CHEMICALS	4,984	1,583	4,006	4,010	4	0.1%
<b>Chemicals Total</b>	<b>4,984</b>	<b>1,583</b>	<b>4,006</b>	<b>4,010</b>	<b>4</b>	<b>0.1%</b>
<b>Contracted Services</b>						
66353 - REPAIR SERVICES	-	1,285	4,400	2,000	(2,400)	-54.5%
66354 - MAINTENANCE SERVICES	47,930	24,161	49,848	52,646	2,798	5.6%
663545 - RADIO SERVICING AND EQUIP	157	-	-	-	-	n/a
663546 - MAINTENANCE - SNOW REMOVL	2,760	2,251	1,500	1,500	-	0.0%
663551 - LAB ANALYSIS	38,717	20,724	48,425	52,810	4,385	9.1%
663574 - DISPOSAL SERVICES	1,309	4,789	4,800	5,500	700	14.6%
663587 - COURIER SERVICES	2,247	1,025	2,946	2,250	(696)	-23.6%
663599 - MISC OTHER SERVICES	11,583	349	-	-	-	n/a
6636 - TECHNICAL SERVICES	12,898	3,891	24,100	17,800	(6,300)	-26.1%
<b>Contracted Services Total</b>	<b>117,601</b>	<b>58,475</b>	<b>136,019</b>	<b>134,506</b>	<b>(1,513)</b>	<b>-1.1%</b>
<b>Heat/Fuel Oil</b>						
661622 - CONTAINER DELIVERED	7,505	4,942	8,309	8,015	(294)	-3.5%
66166 - UNLEADED GAS	9,092	941	7,500	7,500	-	0.0%
<b>Heat/Fuel Oil Total</b>	<b>16,597</b>	<b>5,884</b>	<b>15,809</b>	<b>15,515</b>	<b>(294)</b>	<b>-1.9%</b>
<b>Insurance</b>						
66599 - PROPERTY & BOILER INSUR	2,322	1,161	2,554	2,322	(232)	-9.1%
<b>Insurance Total</b>	<b>2,322</b>	<b>1,161</b>	<b>2,554</b>	<b>2,322</b>	<b>(232)</b>	<b>-9.1%</b>

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Materials &amp; Supplies</b>						
6619 - ASSET PURCHASES	\$18,993	\$6,048	\$12,050	\$15,700	\$3,650	30.3%
66202 - TOOLS	384	70	1,100	1,150	50	4.5%
66203 - VENDOR PURCHASED SUPPLIES	7,558	4,161	10,250	10,800	550	5.4%
662042 - SUPPLIES INVENTORY	713	298	1,675	1,575	(100)	-6.0%
662042 - TOOL INVENTORY	713	132	500	500	-	0.0%
662043 - TOOL INVENTORY	347	425	550	850	300	54.5%
66204303 - INVENTORY - COMPUTER EQUIP	3,265	1,985	1,350	3,188	1,838	136.1%
662047 - GARAGE INVENTORY	40	11	100	100	-	0.0%
66205 - CONSUMABLE SUPPLIES	73,373	31,755	75,250	74,100	(1,150)	-1.5%
66206 - COMPUTER RELATED EQUIP	4,056	-	5,463	4,288	(1,175)	-21.5%
<b>Materials &amp; Supplies Total</b>	<b>109,443</b>	<b>44,883</b>	<b>108,288</b>	<b>112,251</b>	<b>3,963</b>	<b>3.7%</b>
<b>Other Expense</b>						
66411 - INTERNAL RENTAL CHARGES	48,600	24,300	48,600	48,600	-	0.0%
6642 - EQUIPMENT RENT	-	-	300	300	-	0.0%
66601 - PUBLIC RELATIONS	5,588	2,354	5,500	5,850	350	6.4%
66609 - OTHER ADVERTISING	3,034	974	2,200	1,400	(800)	-36.4%
6675111 - IN STATE TRAINING	6,914	3,141	6,800	6,800	-	0.0%
6675112 - OUT OF STATE TRAINING	896	1,732	6,500	6,500	-	0.0%
6675121 - IN STATE CONFERENCES	2,655	275	-	-	-	n/a
6675122 - OUT-OF-STATE CONFERENCES	3,119	671	-	-	-	n/a
667513 - DUES	16,339	14,406	16,480	17,035	555	3.4%
667514 - PROFESSIONAL LICENSES	4,688	25	795	4,820	4,025	506.3%
667515 - PERIODICAL SUBSCRIPTIONS	33	56	580	580	-	0.0%
667516 - PERMITS	80	-	100	-	(100)	-100.0%
667521 - POSTAGE - THIRD PARTY	2,044	975	2,900	2,800	(100)	-3.4%
667522 - POSTAGE - INTERNAL	576	214	750	725	(25)	-3.3%
667523 - POSTAGE - EXPRESS DELIVER	-	417	150	600	450	300.0%
667531 - PRINTING COSTS	19,981	7,635	22,750	25,450	2,700	11.9%
667555 - SAFETY EXPENSES	47	41	-	100	100	n/a
667561 - WATERSHED GRANTS/SUPPORT	43,293	3,750	42,000	45,150	3,150	7.5%
667591 - UNIFORMS	1,602	1,154	2,750	2,800	50	1.8%
667592 - FOOD SUPPLIES	1,084	959	2,075	2,075	-	0.0%
667599 - OTHER MISCELLANEOUS	1,923	2,705	-	50	50	n/a
<b>Other Expense Total</b>	<b>162,495</b>	<b>65,783</b>	<b>161,230</b>	<b>171,635</b>	<b>10,405</b>	<b>6.5%</b>
<b>Purchased Power</b>						
66155 - POWER - SMALL ENERGY	1,506	757	1,673	1,813	140	8.4%
66156 - POWER - SMALL T&D	1,434	607	1,250	1,377	127	10.2%
<b>Purchased Power Total</b>	<b>2,939</b>	<b>1,364</b>	<b>2,923</b>	<b>3,190</b>	<b>267</b>	<b>9.1%</b>
<b>Tele/Other Utilities</b>						
66101 - WATER	159	128	310	310	-	0.0%
66111 - TELEPHONE LINES	-	-	650	650	-	0.0%
66112 - DATA LINES	1,297	369	1,640	1,962	322	19.6%
66113 - CELLULAR PHONES	2,919	1,438	2,100	3,480	1,380	65.7%
66114 - PAGERS	-	51	-	-	-	n/a
<b>Tele/Other Utilities Total</b>	<b>4,375</b>	<b>1,987</b>	<b>4,700</b>	<b>6,402</b>	<b>1,702</b>	<b>36.2%</b>
<b>Transportation</b>						
66501 - TRANSPORTATION - INTERNAL	13,310	8,387	16,507	14,869	(1,638)	-9.9%
665019 - TRANS INTERNAL INACTIVE	13,260	12,019	24,640	24,289	(351)	-1.4%
66502 - TRANSPORTATION - EXTERNAL	-	45	-	-	-	n/a
66503 - MILEAGE REIMBURSEMENT	8,284	4,854	9,450	9,650	200	2.1%
<b>Transportation Total</b>	<b>34,854</b>	<b>25,305</b>	<b>50,597</b>	<b>48,808</b>	<b>(1,789)</b>	<b>-3.5%</b>
<b>Grand Total</b>	<b>1,837,962</b>	<b>878,648</b>	<b>1,899,441</b>	<b>1,939,965</b>	<b>40,524</b>	<b>2.1%</b>



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

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$529,706	\$254,410	\$534,192	\$550,715	\$16,523	3.1%
Employee Benefits	235,121	122,228	249,424	269,288	19,864	8.0%
Contracted Services	75,171	23,850	79,382	68,286	-11,096	-14.0%
Heat/Fuel Oil	15,867	5,441	14,500	14,500	0	0.0%
Insurance	2,322	1,161	2,554	2,322	-232	-9.1%
Materials & Supplies	32,560	11,480	29,025	27,313	-1,712	-5.9%
Other Expense	86,871	23,638	89,495	94,745	5,250	5.9%
Purchased Power	2,939	1,364	2,923	3,190	267	9.1%
Tele/Other Utilities	4,375	1,936	4,700	6,402	1,702	36.2%
Transportation	30,346	22,367	46,198	44,151	-2,047	-4.4%
<b>Grand Total</b>	<b>1,015,280</b>	<b>467,875</b>	<b>1,052,393</b>	<b>1,080,912</b>	<b>28,519</b>	<b>2.7%</b>
<b>Programs:</b>						
28 - Monitoring	132,355	48,556	143,606	138,690	-4,916	-3.4%
41 - Pretreatment	1,554	428	6,134	1,642	-4,492	-73.2%
56 - Tech Ops Support	48,496	20,913	53,019	55,615	2,596	4.9%
78 - Education	103,377	42,641	123,925	122,926	-999	-0.8%
82 - Lake Security - Land	185,987	74,632	183,237	170,830	-12,407	-6.8%
83 - Customer Outreach	114,166	76,952	121,651	132,659	11,008	9.0%
84 - Lake Security - Water	0	0	0	17,542	17,542	n/a
98 - Training	43,163	16,323	35,639	48,344	12,705	35.6%
99 - Administration	386,182	187,430	385,181	392,664	7,483	1.9%
<b>Grand Total</b>	<b>1,015,280</b>	<b>467,875</b>	<b>1,052,393</b>	<b>1,080,912</b>	<b>28,519</b>	<b>2.7%</b>
<b>Funds:</b>						
10 - General	241,046	116,773	258,553	254,793	-3,760	-1.5%
20 - Water General	772,680	350,674	787,706	824,477	36,771	4.7%
57 - WW Portland	475	305	6,134	505	-5,629	-91.8%
61 - WW Gorham	475	0	0	505	505	n/a
62 - WW Westbrook	604	123	0	632	632	n/a
<b>Grand Total</b>	<b>1,015,280</b>	<b>467,875</b>	<b>1,052,393</b>	<b>1,080,912</b>	<b>28,519</b>	<b>2.7%</b>
<b>Headcount:</b>						
Full-Time	7	7	7	8	1	14.3%
Part-Time	1	1	1	1	0	0.0%
<b>Total</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>9</b>	<b>1</b>	<b>12.5%</b>

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

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$417,013	\$196,589	\$418,648	\$411,329	-\$7,319	-1.7%
Employee Benefits	200,512	98,996	211,051	209,994	-1,057	-0.5%
Chemicals	4,984	1,583	4,006	4,010	4	0.1%
Contracted Services	42,430	34,625	56,637	66,220	9,583	16.9%
Heat/Fuel Oil	730	442	1,309	1,015	-294	-22.5%
Materials & Supplies	76,882	33,403	79,263	84,938	5,675	7.2%
Other Expense	75,624	42,145	71,735	76,890	5,155	7.2%
Tele/Other Utilities	0	51	0	0	0	n/a
Transportation	4,508	2,938	4,399	4,657	258	5.9%
<b>Grand Total</b>	<b>822,682</b>	<b>410,773</b>	<b>847,048</b>	<b>859,053</b>	<b>12,005</b>	<b>1.4%</b>
<b>Programs:</b>						
41 - Pretreatment	70,432	32,640	66,506	61,272	-5,234	-7.9%
56 - Tech Ops Support	65,917	32,300	55,738	66,090	10,352	18.6%
63 - Sample Analysis	377,237	188,098	371,814	425,053	53,239	14.3%
78 - Education	240	1,121	1,603	238	-1,365	-85.2%
98 - Training	26,924	15,701	28,683	28,970	287	1.0%
99 - Administration	281,933	140,914	322,705	277,430	-45,275	-14.0%
<b>Grand Total</b>	<b>822,682</b>	<b>410,773</b>	<b>847,048</b>	<b>859,053</b>	<b>12,005</b>	<b>1.4%</b>
<b>Funds:</b>						
10 - General	247,029	120,740	288,500	244,344	-44,156	-15.3%
20 - Water General	218,141	121,516	237,849	223,275	-14,574	-6.1%
50 - Wastewater General	263,608	115,832	224,494	282,288	57,794	25.7%
51 - WW Cape Elizabeth	392	601	1,980	5,939	3,959	199.9%
57 - WW Portland	60,214	29,568	58,024	64,001	5,977	10.3%
61 - WW Gorham	4,487	2,680	4,940	4,164	-776	-15.7%
62 - WW Westbrook	21,918	11,829	20,730	19,722	-1,008	-4.9%
64 - WW Joint Westbrook	5,191	7,606	9,605	13,232	3,627	37.8%
66 - WW Peaks Island	1,702	401	925	2,088	1,163	125.7%
<b>Grand Total</b>	<b>822,682</b>	<b>410,773</b>	<b>847,048</b>	<b>859,053</b>	<b>12,005</b>	<b>1.4%</b>
<b>Headcount:</b>						
Full-Time	7	7	7	7	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>0</b>	<b>0.0%</b>

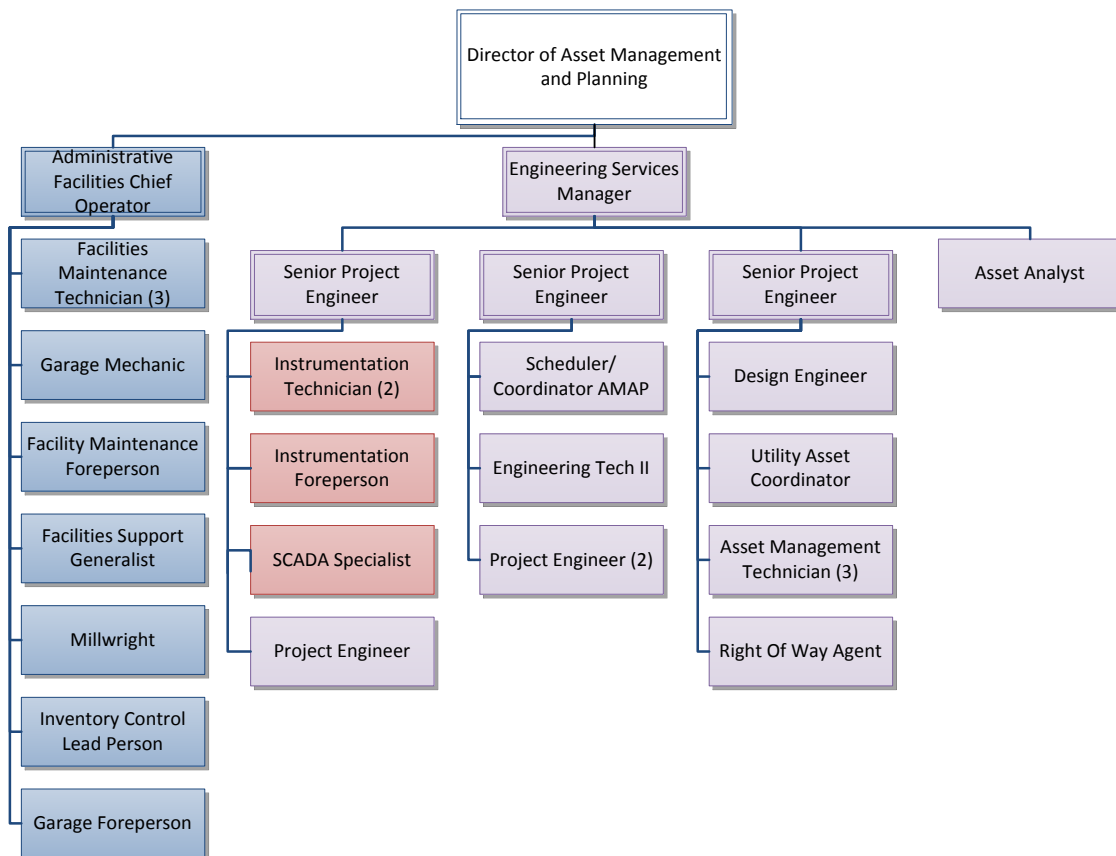
## Engineering Services - Purpose Statement

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

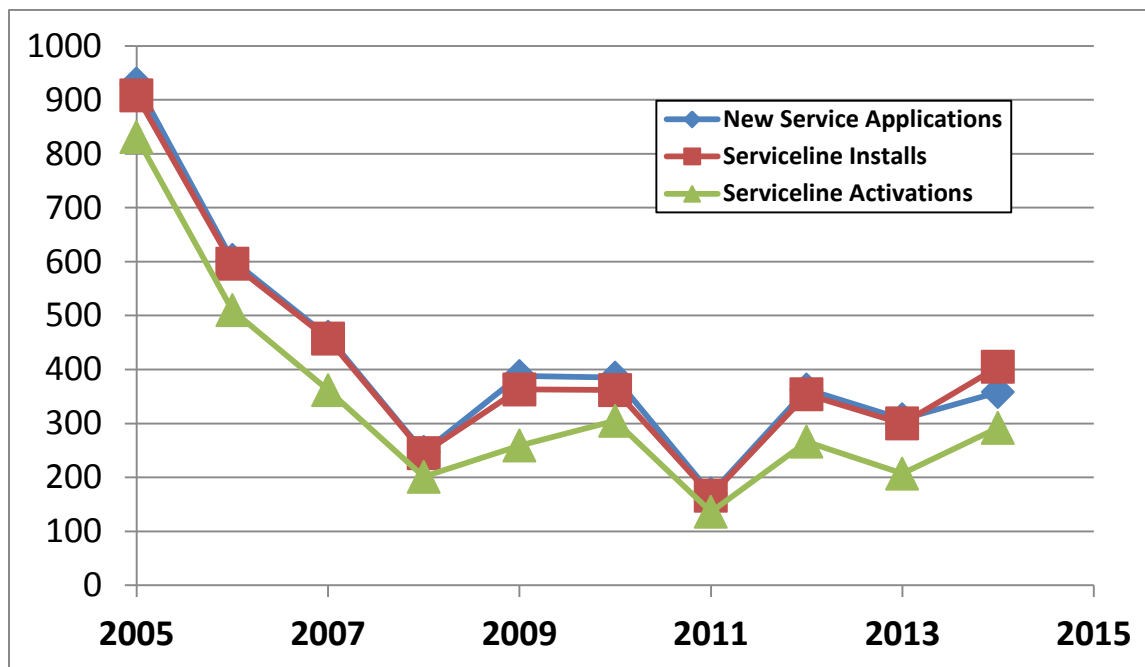
Engineering Services is responsible for providing engineering and maintenance services to internal and external customers. They are responsible for the following services:

- 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	1,318
Equipment/Components	9,792
Vehicles/Heavy Equipment	109
Water Service Association Assets (meters, backflows, etc.)	211,210
Water Field Assets	46,205
Sewer Field Assets	6,637
<b>Total Assets</b>	<b>272,273</b>

## Performance Benchmarks

	2014 Actual	2015 Budget	2016 Budget
<b>Corporate Goal – Reliability</b>			
Leaks per 100 miles of main	9.7	<25	<25
Main Renewals, feet	28,400	27,000	30,000
Main Extensions, feet	15,400	11,000	18,000
SCADA telemetry uptime (Wastewater), percent	98.97	99.00	99.00
SCADA telemetry uptime (Water), percent	98.64	99.00	99.00
<b>Corporate Goal - Affordability</b>			
New Water Services	292	350	350
<b>Corporate Goal – Employees and Work Environment</b>			
Employee Training Hours	70	80	80

## **Past Accomplishments**

- Managed design and installation of more than 3.5 miles of water main replacements including partnering with MDOT and municipalities. Undertook water and sewer main design and construction in support of Combined Sewer Overflow (CSO) initiatives in the Cities of Portland and Westbrook.
- Oversaw design and construction of facility projects at SLWTF (Ozone Destruct Upgrade), Peaks Island (UV Disinfection), Fore River Pump Station (Pump Upgrade) and EEWWTF (Aeration Upgrade).
- Managed Westbrook Regional Wastewater Treatment Facility (WRWWTF) Aeration Study
- Managed design and construction of East End Wastewater Facility (EEWWTF) aeration upgrade.
- Implemented and supported improvements to water/wastewater process control and documentation through SCADA, data warehouse, digital control and radio projects.
- Supported Wastewater vertical asset P&ID development and apprentice training to improve asset data, work processes and AIM understanding.
- Reviewed and ensured a one-to-one relationship between water service lines and billing accounts in Windham as part of the Service-Associated Asset documentation effort.
- Continued facility improvements including the Nixon Center Audio system and roof at the Douglass St facility and the Fore River Pump Station roof.

## **2016 Projects and Initiatives**

### **Corporate Goal – Public Health**

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

### **Corporate Goals – Reliability and Affordability**

- Continue development of wastewater capital project delivery through Engineering Services. Projects include work at all wastewater treatment facilities
- Continue implementation of project to improve quality and digital accessibility of Service-Associated Assets (Water Service line, Water Meter, Water Backflow, etc.).
- Manage and support wastewater vertical asset upgrade projects (EEWWTF, Fore River PS, etc.).
- Improve prioritization system for water main replacement programs and manage design and delivery of projects.
- Work with Wastewater Ops, Water Ops, and Environmental Services to improve quality and effectiveness of the District's Asset Information Management (AIM) system.
- Pilot use of tablet computer for field maintenance, inspection and engineering
- Continued building envelope improvements including an exterior wall project at Douglass St.

### **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.

## 2015 Highlights



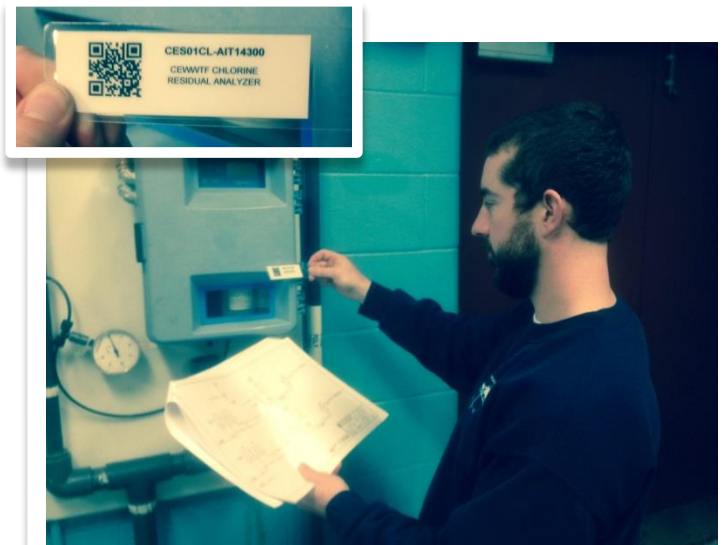
Oversaw design and construction of Westbrook Sewer and Water Infrastructure project



Managed Ozone Destruct System upgrade project



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



Successfully partnered with Wastewater Operations to improve AIM knowledge and asset register documentation utilizing intern, apprentice, maintenance and operator resources

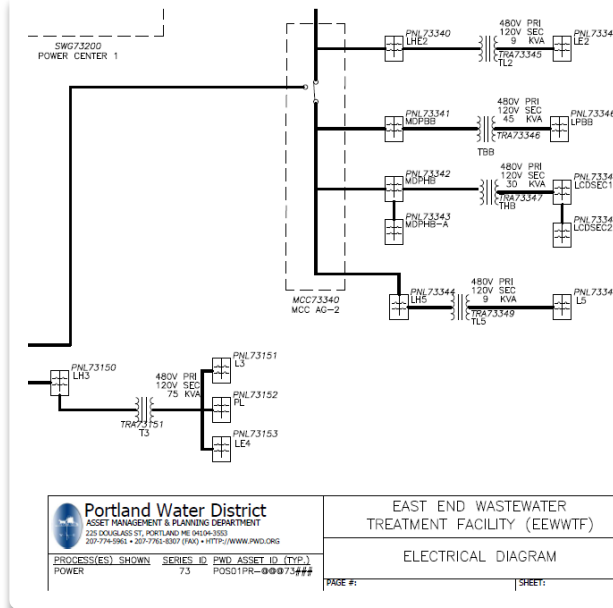


## 2016 Projects and Initiatives



Work cooperatively with Wastewater Operations to scope, prioritize, design and deliver infrastructure renewal projects

Manage and oversee EEWTF Aeration Upgrade project



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

Continue to lead and support implementation of improved vertical asset definitions in AIM



## **Financial Overview**

The Engineering Services 2016 budget request is \$4,017,149 which is \$6,148 or 0.2% higher than last year's budget. The group consists of 3 subgroups – Facility Services (C1), Asset Engineering (E2) and Instrumentation (E7).

Facility Services' budget decreases by \$89,621 or 4.3% reflecting lower gasoline costs, transportation and maintenance costs.

Asset Engineering's budget decreases by \$14,684 or 0.9%. Salaries/Wages/Benefits increases are offset by an increase in engineering project charge-offs and the move of one staff position to E7.

Instrumentation's budget increase is \$110,452 or 33.6% higher due to Salaries/Wages/Benefits increases primarily due to the addition on a new position.

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 2016. However, one position was dropped (Engineering Technician) and one position was added (SCADA Specialist). This move contributed to a \$101,703 or 6.1% increase due in part to the higher level of the new position and the allocation primarily to operation and maintenance as opposed to the capital focus of the previous position

### **Deferred Cost W/O**

The line item includes a decrease of \$5,000 to reflect costs related to the Wastewater CSO Master Plan Study.

### **Heat/Fuel Oil**

This line was decreased \$14,045 (10.5%) to reflect the decrease in per gallon costs for Douglass Street heating oil.

### **Materials and Supplies**

The line item includes a decrease of \$50,500 in unleaded gas and diesel reflecting lower unit prices.

### **Other Expenses**

The line item includes an increase in the credit to the O&M budget for engineering costs allocated to capital projects of \$59,300. The credit is based on the miles of water mains replaced which is assumed to be higher in the 2016 budget.

### **Transportation**

The line item includes a decrease in internal transportation costs (active and inactive) of \$21,315 due primarily due to lower fuel costs.

## Engineering Services – Total

### Financial Summary

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Sub-Group:</b>						
C1 - Facilities Services	\$1,833,721	\$920,793	\$2,094,668	\$2,005,047	-\$89,621	-4.3%
E2 - Asset Engineering	1,393,329	710,790	1,586,470	1,571,786	-14,684	-0.9%
E7 - Instrumentation	304,170	168,510	329,864	440,316	110,452	33.5%
<b>Grand Total</b>	<b>3,531,220</b>	<b>1,800,094</b>	<b>4,011,001</b>	<b>4,017,149</b>	<b>6,148</b>	<b>0.2%</b>
<b>Expense Type:</b>						
Salaries & Wages	1,565,721	744,364	1,676,192	1,777,895	101,703	6.1%
Employee Benefits	804,203	404,404	885,891	954,424	68,533	7.7%
Contracted Services	351,018	186,987	438,746	441,050	2,304	0.5%
Deferred Cost W/O	11,802	9,701	19,402	14,400	-5,002	-25.8%
Heat/Fuel Oil	124,076	77,862	134,245	120,200	-14,045	-10.5%
Insurance	41,384	20,193	44,644	40,687	-3,957	-8.9%
Materials & Supplies	515,836	258,383	585,258	520,565	-64,693	-11.1%
Other Expense	-131,945	-34,913	-58,000	-114,000	-56,000	96.6%
Purchased Power	68,681	33,390	73,360	74,221	861	1.2%
Tele/Other Utilities	77,449	51,194	85,213	84,137	-1,076	-1.3%
Transportation	102,996	48,529	126,050	103,570	-22,480	-17.8%
<b>Grand Total</b>	<b>3,531,220</b>	<b>1,800,094</b>	<b>4,011,001</b>	<b>4,017,149</b>	<b>6,148</b>	<b>0.2%</b>
<b>Headcount:</b>						
Full-Time	30	30	30	30	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>0</b>	<b>0.0%</b>

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %	
<b>Salaries &amp; Wages</b>							
660111 - SALARIES/WAGES NON-UNION	818,126	406,430	897,917	994,547	96,630	10.8%	
660121 - WAGES/REGULAR UNION	717,353	322,504	729,464	732,341	2,877	0.4%	
660122 - WAGES/OVERTIME UNION	3,153	3,782	9,418	9,608	190	2.0%	
660123 - WAGES/DOUBLETIME UNION	-	225	1,481	1,347	(134)	-9.0%	
660124 - WAGES/STANDBY TIME UNION	1,294	369	472	769	297	62.9%	
660131 - WAGES - REGULAR - TEMPS	25,692	9,104	37,440	39,283	1,843	4.9%	
660136 - CONTRACTED - TEMP	-	1,950	-	-	-	n/a	
66014 - VACATION ACCRUAL	(3,752)	-	-	-	-	n/a	
66015 - SICKTIME ACCRUAL	3,854	-	-	-	-	n/a	
<b>Salaries &amp; Wages Total</b>	<b>1,565,721</b>	<b>744,364</b>	<b>1,676,192</b>	<b>1,777,895</b>	<b>101,703</b>	<b>6.1%</b>	
<b>Employee Benefits</b>							
660401 - FICA - EMPLOYERS' SHARE	115,508	54,927	128,229	136,006	7,777	6.1%	
660405 - SAFETY/WHY PROGRAM ITEMS	4,481	1,877	7,415	6,645	(770)	-10.4%	
660411 - MEALS ALLOWANCE	20	100	40	100	60	150.0%	
660413 - PWD TRAINING PROGRAM	49	-	-	-	-	n/a	
660418 - STIPENDS	1,800	3,300	2,100	2,800	700	33.3%	
660419 - EMPLOYEE BENEFITS-MISC OTH	8,818	1,510	-	-	-	n/a	
660491 - FRINGE BENEFITS-REG/SAL	673,526	342,690	748,107	808,873	60,766	8.1%	
<b>Employee Benefits Total</b>	<b>804,203</b>	<b>404,404</b>	<b>885,891</b>	<b>954,424</b>	<b>68,533</b>	<b>7.7%</b>	
<b>Contracted Services</b>							
6631 - ENGINEERING SERVICES	8,144	1,541	5,000	5,000	-	0.0%	
663524 - STREET OPENING	511	194	-	-	-	n/a	
663525 - CONTRACTOR CONSTRUCTION	6,720	-	-	-	-	n/a	
663526 - INSPECTION SERVICES	493	-	-	-	-	n/a	
66353 - REPAIR SERVICES	6,385	-	10,000	10,000	-	0.0%	
66354 - MAINTENANCE SERVICES	209,361	107,584	287,173	246,350	(40,823)	-14.2%	
663546 - MAINTENANCE - SNOW REMOVL	-	-	-	22,000	22,000	n/a	
663561 - COMPUTER LICENSES	22,521	23,736	25,120	26,450	1,330	5.3%	
663562 - COMPUTER MAINTAINENCE	-	-	250	-	(250)	-100.0%	
663563 - COMPUTER CONSULTING/OTHER	-	-	800	1,000	200	25.0%	
663574 - DISPOSAL SERVICES	13,689	11,510	21,600	23,500	1,900	8.8%	
663587 - COURIER SERVICES	8,988	4,100	8,553	9,000	447	5.2%	
663588 - EQUIPMENT MAINTENANCE	125	-	5,250	5,250	-	0.0%	
663589 - SECURITY SERVICES	68,943	36,278	71,500	82,000	10,500	14.7%	
6635985 - VEHICLE FLEET GPS SERVICE	-	-	-	7,000	7,000	n/a	
663599 - MISC OTHER SERVICES	2,473	2,043	2,500	2,500	-	0.0%	
6636 - TECHNICAL SERVICES	2,666	-	1,000	1,000	-	0.0%	
<b>Contracted Services Total</b>	<b>351,018</b>	<b>186,987</b>	<b>438,746</b>	<b>441,050</b>	<b>2,304</b>	<b>0.5%</b>	
<b>Deferred Cost W/O</b>							
66754 - DEFERRED COSTS WRITE OFF	11,802	9,701	19,402	14,400	(5,002)	-25.8%	
<b>Deferred Cost W/O Total</b>	<b>11,802</b>	<b>9,701</b>	<b>19,402</b>	<b>14,400</b>	<b>(5,002)</b>	<b>-25.8%</b>	
<b>Heat/Fuel Oil</b>							
66161 - HEATING OIL	108,162	69,252	116,265	102,220	(14,045)	-12.1%	
661621 - PIPELINE DELIVERED PROPAN	1,817	1,236	1,980	1,980	-	0.0%	
66166 - UNLEADED GAS	14,097	7,374	16,000	16,000	-	0.0%	
<b>Heat/Fuel Oil Total</b>	<b>124,076</b>	<b>77,862</b>	<b>134,245</b>	<b>120,200</b>	<b>(14,045)</b>	<b>-10.5%</b>	

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Insurance</b>						
6656 - VEHICAL INSURANCE	28,090	13,769	30,056	28,564	(1,492)	-5.0%
66561 - VEHICAL INSURANCE REIMBUR	43	362	-	-	-	n/a
66593 - UMBRELLA INSURANCE COVER	6,698	2,792	7,564	5,584	(1,980)	-26.2%
66599 - PROPERTY & BOILER INSUR	6,554	3,270	7,024	6,539	(485)	-6.9%
<b>Insurance Total</b>	<b>41,384</b>	<b>20,193</b>	<b>44,644</b>	<b>40,687</b>	<b>(3,957)</b>	<b>-8.9%</b>
<b>Materials &amp; Supplies</b>						
6619 - ASSET PURCHASES	16,173	942	32,750	32,050	(700)	-2.1%
66202 - TOOLS	4,364	3,804	12,000	9,000	(3,000)	-25.0%
66203 - VENDOR PURCHASED SUPPLIES	148,265	82,626	180,915	164,150	(16,765)	-9.3%
662041 - MATERIALS INVENTORY	34,846	20,224	7,750	8,850	1,100	14.2%
662042 - SUPPLIES INVENTORY	18,976	10,758	17,050	19,950	2,900	17.0%
662043 - TOOL INVENTORY	8,280	5,241	11,000	10,550	(450)	-4.1%
66204302 - INVENTORY - PAPER	(93)	-	500	500	-	0.0%
66204303 - INVENTORY-COMPUTER EQUIP	3,062	1,880	3,300	2,700	(600)	-18.2%
662044 - METER INVENTORY	(4,226)	(818)	-	-	-	n/a
662046 - HYDRANT INVENTORY	9,938	805	-	-	-	n/a
662047 - GARAGE INVENTORY	8,074	4,270	8,850	8,975	125	1.4%
66204701 - INVENTORY - UNLEADED GAS	165,452	72,114	187,530	150,480	(37,050)	-19.8%
66204702 - INVENTORY - DIESEL	78,948	40,034	91,512	78,010	(13,502)	-14.8%
66204703 - INVENTORY - TIRES	15,059	6,227	15,000	15,000	-	0.0%
66205 - CONSUMABLE SUPPLIES	1,682	583	4,100	3,550	(550)	-13.4%
66206 - COMPUTER RELATED EQUIP	-	9,692	13,001	16,800	3,799	29.2%
663564 - COMPUTER-RELATED EQUIP	7,038	-	-	-	-	n/a
<b>Materials &amp; Supplies Total</b>	<b>515,836</b>	<b>258,383</b>	<b>585,258</b>	<b>520,565</b>	<b>(64,693)</b>	<b>-11.1%</b>
<b>Other Expense</b>						
6642 - EQUIPMENT RENT	275	540	2,500	2,500	-	0.0%
66601 - PUBLIC RELATIONS	62	-	-	-	-	n/a
66609 - OTHER ADVERTISING	253	-	-	-	-	n/a
6675111 - INSTATE TRAINING	11,199	6,903	10,500	19,150	8,650	82.4%
6675112 - OUT OF STATE TRAINING	204	-	7,000	1,100	(5,900)	-84.3%
6675121 - IN STATE CONFERENCES	596	120	3,000	3,000	-	0.0%
6675122 - OUT-OF-STATE CONFERENCES	788	924	5,000	5,000	-	0.0%
667513 - DUES	1,214	1,274	2,850	2,850	-	0.0%
667514 - PROFESSIONAL LICENSES	1,519	235	3,450	3,650	200	5.8%
667515 - PERIODICAL SUBSCRIPTIONS	249	-	550	550	-	0.0%
667516 - PERMITS	980	705	2,500	2,500	-	0.0%
667522 - POSTAGE - INTERNAL	258	99	500	500	-	0.0%
667523 - POSTAGE - EXPRESS DELIVER	1,187	538	800	1,050	250	31.3%
667552 - SAFETY TRAINING	-	-	500	500	-	0.0%
667555 - SAFETY EXPENSES	-	620	1,500	1,500	-	0.0%
667556 - FREIGHT CHARGES (STOCK)	6,945	5,167	5,000	5,000	-	0.0%
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%
<b>Other Expense Total</b>	<b>(131,945)</b>	<b>(34,913)</b>	<b>(58,000)</b>	<b>(114,000)</b>	<b>(56,000)</b>	<b>96.6%</b>

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Purchased Power</b>						
66153 - POWER - MEDIUM ENERGY	44,573	22,516	49,178	47,841	(1,337)	-2.7%
66154 - POWER - MEDIUM T&D	21,042	9,024	21,097	23,108	2,011	9.5%
66155 - POWER - SMALL ENERGY	1,560	1,043	1,771	1,862	91	5.1%
66156 - POWER - SMALL T&D	1,506	807	1,313	1,410	97	7.4%
<b>Purchased Power Total</b>	<b>68,681</b>	<b>33,390</b>	<b>73,360</b>	<b>74,221</b>	<b>861</b>	<b>1.2%</b>
<b>Tele/Other Utilities</b>						
66101 - WATER	19,075	18,271	19,500	22,250	2,750	14.1%
66103 - STORMWATER CHARGES	-	-	-	5,328	5,328	n/a
66111 - TELEPHONE LINES	23,511	13,437	23,131	26,369	3,238	14.0%
66112 - DATA LINES	28,525	16,309	36,068	23,766	(12,302)	-34.1%
66113 - CELLULAR PHONES	5,799	2,833	6,110	6,120	10	0.2%
66114 - PAGERS	540	345	404	304	(100)	-24.8%
<b>Tele/Other Utilities Total</b>	<b>77,449</b>	<b>51,194</b>	<b>85,213</b>	<b>84,137</b>	<b>(1,076)</b>	<b>-1.3%</b>
<b>Transportation</b>						
66501 - TRANSPORTATION - INTERNAL	44,877	17,745	73,244	66,921	(6,323)	-8.6%
665019 - TRANS INTERNAL INACTIVE	52,180	29,431	43,831	28,849	(14,982)	-34.2%
66502 - TRANSPORTATION - EXTERNAL	3,308	542	3,100	3,250	150	4.8%
66503 - MILEAGE REIMBURSEMENT	2,631	812	5,875	4,550	(1,325)	-22.6%
<b>Transportation Total</b>	<b>102,996</b>	<b>48,529</b>	<b>126,050</b>	<b>103,570</b>	<b>(22,480)</b>	<b>-17.8%</b>
<b>Grand Total</b>	<b>3,531,220</b>	<b>1,800,094</b>	<b>4,011,001</b>	<b>4,017,149</b>	<b>6,148</b>	<b>0.2%</b>

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

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$468,292	\$224,857	\$481,188	\$491,505	\$10,317	2.1%
Employee Benefits	236,336	120,334	253,041	262,058	9,017	3.6%
Contracted Services	312,099	153,296	405,076	406,100	1,024	0.3%
Heat/Fuel Oil	124,076	77,862	134,245	120,200	-14,045	-10.5%
Insurance	41,384	20,193	44,644	40,687	-3,957	-8.9%
Materials & Supplies	481,047	227,300	551,980	483,140	-68,840	-12.5%
Other Expense	-14,378	-5,006	1,250	300	-950	-76.0%
Purchased Power	68,681	33,390	73,360	74,221	861	1.2%
Tele/Other Utilities	66,242	45,476	72,655	72,111	-544	-0.7%
Transportation	49,942	23,093	77,229	54,725	-22,504	-29.1%
<b>Grand Total</b>	<b>1,833,721</b>	<b>920,793</b>	<b>2,094,668</b>	<b>2,005,047</b>	<b>-89,621</b>	<b>-4.3%</b>
<b>Programs:</b>						
23 - Stockroom Operations	110,001	64,448	127,675	124,851	-2,824	-2.2%
24 - Distribution Operations	61,608	32,711	48,168	54,452	6,284	13.0%
30 - Maintenance	199,448	66,225	224,523	241,624	17,101	7.6%
55 - Prof Ops Support	69,704	37,442	69,012	62,752	-6,260	-9.1%
90 - Vehicles	591,657	294,556	711,374	638,863	-72,511	-10.2%
93 - Stockroom Scrap	22,243	145	250	250	0	0.0%
95 - Douglass Street	618,292	341,627	749,836	727,071	-22,765	-3.0%
98 - Training	40,751	18,051	35,156	39,011	3,855	11.0%
99 - Administration	120,019	65,589	128,674	116,173	-12,501	-9.7%
<b>Grand Total</b>	<b>1,833,721</b>	<b>920,793</b>	<b>2,094,668</b>	<b>2,005,047</b>	<b>-89,621</b>	<b>-4.3%</b>
<b>Funds:</b>						
10 - General	1,370,592	719,823	1,625,040	1,521,118	-103,922	-6.4%
20 - Water General	333,733	159,933	322,383	332,036	9,653	3.0%
30 - Water Standish	593	254	11,857	6,050	-5,807	-49.0%
51 - WW Cape Elizabeth	25,034	6,932	22,164	23,196	1,032	4.7%
53 - WW Cumberland	10,571	1,522	8,974	10,744	1,770	19.7%
55 - WW Windham LF	47	137	130	39	-91	-70.0%
57 - WW Portland	71,241	22,879	71,785	83,275	11,490	16.0%
61 - WW Gorham	4,252	1,674	7,353	7,813	460	6.3%
62 - WW Westbrook	5,144	920	4,353	4,920	567	13.0%
64 - WW Joint Westbrook	5,159	4,020	17,058	11,263	-5,795	-34.0%
65 - WW Joint LF	1,078	350	1,200	1,200	0	0.0%
66 - WW Peaks Island	6,277	2,349	2,370	3,393	1,023	43.2%
<b>Grand Total</b>	<b>1,833,721</b>	<b>920,793</b>	<b>2,094,668</b>	<b>2,005,047</b>	<b>-89,621</b>	<b>-4.3%</b>
<b>Headcount:</b>						
Full-Time	10	10	10	10	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>0</b>	<b>0.0%</b>

## Engineering Services - Asset Engineering Services (E2)

### Financial Summary

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$941,499	\$454,270	\$1,035,220	\$1,056,497	\$21,277	2.1%
Employee Benefits	489,763	248,691	547,331	567,795	20,464	3.7%
Contracted Services	16,274	1,959	10,300	10,250	-50	-0.5%
Deferred Cost W/O	11,802	9,701	19,402	14,400	-5,002	-25.8%
Materials & Supplies	13,170	11,156	11,813	15,050	3,237	27.4%
Other Expense	-119,668	-31,953	-69,750	-125,550	-55,800	80.0%
Tele/Other Utilities	8,191	4,182	8,708	8,604	-104	-1.2%
Transportation	32,298	12,784	23,446	24,740	1,294	5.5%
<b>Grand Total</b>	<b>1,393,329</b>	<b>710,790</b>	<b>1,586,470</b>	<b>1,571,786</b>	<b>-14,684</b>	<b>-0.9%</b>
<b>Programs:</b>						
57 - Means Coordination	244,764	122,999	286,395	299,028	12,633	4.4%
79 - Amap Services	363,292	225,360	487,324	452,270	-35,054	-7.2%
94 - Technology Teams	169,034	61,232	259,140	254,599	-4,541	-1.8%
98 - Training	61,584	38,257	73,955	74,082	127	0.2%
99 - Administration	554,654	262,942	479,656	491,807	12,151	2.5%
<b>Grand Total</b>	<b>1,393,329</b>	<b>710,790</b>	<b>1,586,470</b>	<b>1,571,786</b>	<b>-14,684</b>	<b>-0.9%</b>
<b>Funds:</b>						
10 - General	715,179	306,146	708,823	733,257	24,434	3.4%
20 - Water General	509,295	291,037	635,716	583,561	-52,155	-8.2%
50 - Wastewater General	46,400	28,550	223,122	240,568	17,446	7.8%
51 - WW Cape Elizabeth	3,191	1,106	0	0	0	n/a
53 - WW Cumberland	341	0	0	0	0	n/a
55 - WW Windham LF	44	0	0	0	0	n/a
57 - WW Portland	69,402	52,833	207	0	-207	-100.0%
61 - WW Gorham	174	91	0	0	0	n/a
62 - WW Westbrook	16,248	16,769	18,602	14,400	-4,202	-22.6%
64 - WW Joint Westbrook	22,586	8,513	0	0	0	n/a
66 - WW Peaks Island	10,468	5,746	0	0	0	n/a
<b>Grand Total</b>	<b>1,393,329</b>	<b>710,790</b>	<b>1,586,470</b>	<b>1,571,786</b>	<b>-14,684</b>	<b>-0.9%</b>
<b>Headcount:</b>						
Full-Time	17	17	17	16	-1	-5.9%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>16</b>	<b>-1</b>	<b>-5.9%</b>



## Engineering Services - Instrumentation Services (E7)

### Financial Summary

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$155,930	\$65,237	\$159,785	\$229,893	\$70,108	43.9%
Employee Benefits	78,104	35,378	85,519	124,571	39,052	45.7%
Contracted Services	22,646	31,732	23,370	24,700	1,330	5.7%
Materials & Supplies	21,619	19,927	21,465	22,375	910	4.2%
Other Expense	2,101	2,047	10,500	11,250	750	7.1%
Tele/Other Utilities	3,016	1,537	3,850	3,422	-428	-11.1%
Transportation	20,756	12,652	25,375	24,105	-1,270	-5.0%
<b>Grand Total</b>	<b>304,170</b>	<b>168,510</b>	<b>329,864</b>	<b>440,316</b>	<b>110,452</b>	<b>33.5%</b>
<b>Programs:</b>						
81 - Instrumentation & Control	166,032	93,292	187,247	260,532	73,285	39.1%
94 - Technology Teams	0	0	1,861	1,775	-86	-4.6%
98 - Training	10,963	6,566	18,755	23,764	5,009	26.7%
99 - Administration	127,176	68,652	122,001	154,245	32,244	26.4%
<b>Grand Total</b>	<b>304,170</b>	<b>168,510</b>	<b>329,864</b>	<b>440,316</b>	<b>110,452</b>	<b>33.5%</b>
<b>Funds:</b>						
10 - General	138,139	75,218	142,616	179,784	37,168	26.1%
20 - Water General	59,461	31,707	63,525	86,284	22,759	35.8%
50 - Wastewater General	25,464	18,242	58,181	108,548	50,367	86.6%
51 - WW Cape Elizabeth	15,130	7,657	425	450	25	5.9%
53 - WW Cumberland	6,427	1,870	850	900	50	5.9%
57 - WW Portland	23,123	23,216	62,407	62,550	143	0.2%
61 - WW Gorham	6,443	2,323	425	450	25	5.9%
62 - WW Westbrook	7,956	2,232	425	450	25	5.9%
64 - WW Joint Westbrook	14,271	4,091	560	500	-60	-10.7%
65 - WW Joint LF	1,381	529	0	0	0	n/a
66 - WW Peaks Island	6,377	1,424	450	400	-50	-11.1%
<b>Grand Total</b>	<b>304,170</b>	<b>168,510</b>	<b>329,864</b>	<b>440,316</b>	<b>110,452</b>	<b>33.5%</b>
<b>Headcount:</b>						
Full-Time	3	3	3	4	1	33.3%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>33.3%</b>

## Administrative Services - Purpose Statement

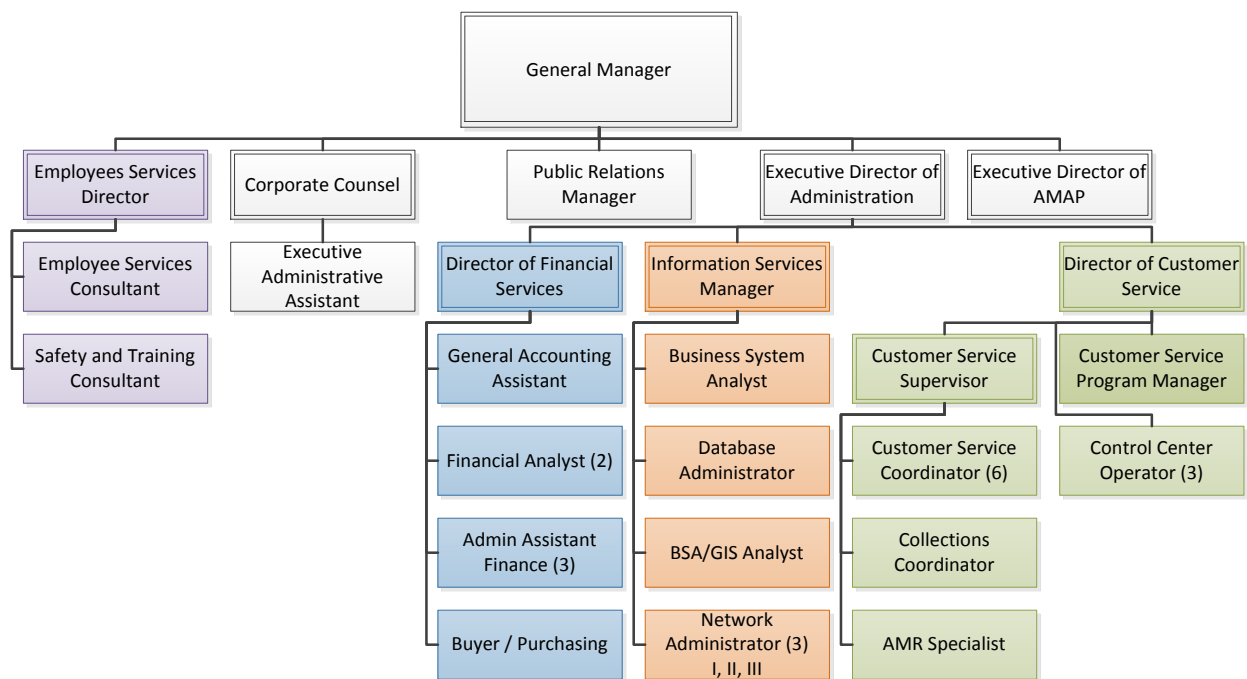
To provide support services to internal and external customers

### 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 a seven-person group (Executive Group – J1; black in the organization chart) that directs, oversees and provides administrative support for the District.



## Past Accomplishments and 2016 Projects and Initiatives

### Customer Service

#### 2015 Accomplishments

- MOU and New Submeter Process: Met with towns of Gorham and Cape Elizabeth 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 2016.
- Itron Equipment Upgrade: Purchased new mobile meter reading collectors and 2 handheld units. Upgraded to latest Mobile Vehicle Reading System (MVRS) meter reading software. Also, purchased the latest meter radio device (100W+ ERTS) and will test by installing on several PWD accounts to test the functionality. The devices store meter readings throughout the month.
- 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.
- Updated Zero Use Report: Worked with Customer Service Coordinators to make the Zero Use Report easier to manage and automate some logs.
- Automated Processing to Finalize and Establish Service: Scheduled to begin reviewing how manually processing of 400 orders per month could be automated.

#### 2016 Projects and Initiatives

- Create a “SMART” Usage Reading Review Report.
- Implement an automated processing of initial and finals bill process to more accurately and timely record the first and last customer bill.
- Work with Cape Elizabeth and Gorham to take over sale of submeters in 2016
- Meet with two additional municipalities to approve MOU and establish sale of submeter by those municipalities in 2017.
- Work with Operations to create a Video Training Library of Field Related Tasks for use by Customer Service to enhance their job knowledge (for example video hydrant meter installation, repair of service box, new service meter installation, meter exchange, Digsafe locate, hydrant installation/repair, water main break repair, correlating a leak, taking a water quality sample, and seasonal installations).
- Increase paperless bills with Win Free Water for a Year Contest.

<u>Key Statistics</u>	<u>2013</u> <u>Actual</u>	<u>2014</u> <u>Actual</u>	<u>2015</u> <u>Projected</u>	<u>2016</u> <u>Goal</u>
Customers Served	53,790	54,000	54,300	54,600
Phone calls answered within 1 min	81.00%	87.00%	83.00%	82.00%
Customer Satisfaction	98.00%	97.00%	97.00%	95.00%
Actual vs Estimated Reads	99.67%	99.96%	99.50%	99.00%
Accurate Bill Index	99.97%	99.97%	99.96%	99.85%
Customer Contacts	51,552	53,993	48,000	49,000
Bills Produced	633,604	637,657	642,000	645,500

## **Past Accomplishments and 2016 Projects and Initiatives (continued)**

### **Information Services**

#### **2015 Accomplishments**

##### **System upgrades:**

- Hansen Billing/Asset Management server upgrade - Hansen software migrated to new Dell 610 server with SSD hard drives. Performance improved by 50%.
- Mail Server upgrade - Email server upgraded from Exchange 2003 to Exchange 2010. Also installed on new Dell server.
- Citrix XenApp upgrade - Migration of our desktop operating system from Windows 2003 to Windows 2008. Citrix migrated from XenApp 4.5 to XenApp 6.5
- Field user connectivity upgrade - Wireless modem upgrades for all field users increasing speed and reliability by 40%
- Active Directory upgrade - Active directory house all network security information (usernames, passwords etc.). It was upgraded from a Windows 2003 domain to a Windows 2008 domain.

##### **Process Improvements:**

- Paperless Timecard project - Worked with the Finance Department to develop a process to convert the existing paper based timecard process to an electronic process. This process will save over 12,000 sheets of paper each year.
- Mobile Forms - Process developed using iPads and barcodes to perform yearly inventory count. In the past this was a paper based process.
- Work Request Web Form - A user friendly form has been created to submit work requests across all departments. The existing process required the request to be entered directly into Hansen which is somewhat cumbersome for employees who do not use the work request functions within Hansen often.

##### **System Security**

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

#### **2016 Projects and Initiatives**

- 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.
- 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.
- Data switch replacement - We have 38 data switches on our network used to move data across the company. In 2016 we will be replacing 15 of them.
- XenApp upgrade - In 2016, we will be upgrading our Citrix XenApp environment to XenApp 8.0
- SharePoint upgrade - We will be upgrading our current SharePoint Intranet server from SharePoint 2010 to SharePoint 2015.

## Past Accomplishments and 2016 Projects and Initiatives (continued)

### IS Department Key Statistics:

#### Devices Maintained:

Device Type	2012	2013	2014	2015	2016
Servers	30	30	43	38	33
Virtual Servers	6	9	19	25	43
Laptops	60	54	54	55	56
CPU	52	40	30	25	22
Thin Clients	95	112	120	130	135
Firewall	3	3	3	3	3
Switches	32	24	26	28	38
Routers	5	5	5	5	4
Phone Switches	11	11	11	11	11
Desk Phones	162	164	164	168	170
Smart Phones	16	19	18	18	17
Printers/Scanner	40	47	47	37	27
Copiers	8	8	8	8	8
Tablets	3	16	20	20	23
<b>Total</b>	<b>523</b>	<b>542</b>	<b>564</b>	<b>581</b>	<b>590</b>

#### 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

### Financial Services

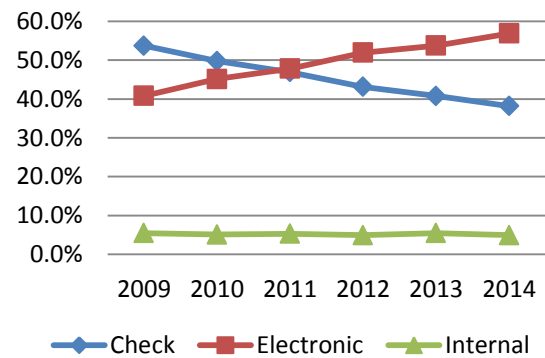
#### 2015 Accomplishments

- Received Government Finance Officers Association's "Certificate of Achievement for Excellence in Financial Reporting" for the 2013 Comprehensive Annual Financial Report (CAFR), and the "Distinguished Budget Presentation Award" for the 2015 Comprehensive Budget Report for the fifth year in a row.
- The implementation of electronic timecard submission and approval process.
- Use of a new electronic database for managers to input their labor budgets giving managers immediate feedback on budget changes & eliminating redundant the manual input of the data.

#### 2016 Projects and Initiatives

- Creation of an Operating Expense portal which will give managers a quick overview of how they are doing and allow them to run more specific reports to better understand their numbers.
- Creation of 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.

Customer Payments by Type



## **Past Accomplishments and 2016 Projects and Initiatives (continued)**

### **Employee Services**

#### **2015 Accomplishments**

- Accident investigations have been modified to better aid the identification of the “root cause” of accidents, and identify prevention measures to implement.
- The Union and non-Union defined benefit plan documents were re-stated.
- The Harvard Pilgrim health renewal for 1/1/16 was accomplished at a slight decrease due to the continuation of good claims history that runs well below the expected claims level. This is occurring at a time when other plans are renewing with significant increases. As a result, the District is able to offer a new, employee and spouse tier of coverage, and is increasing employee contributions only by another 1%. This means that non-union employees will contribute a total of 6%, which is significantly lower than the national average of 17%.
- Based on the 3 year Labor Contract negotiated in 2012-3, the following agreed to changes were implemented in 2014:
  - Employee-only medical cost sharing increased another 1% this year
  - the traditional monthly pension increased by another \$0.25 (defined benefit plan)
  - “reasonable suspicion drug testing” was put in place
- Several policies were updated, communicated and distributed.
- Conducted bi-annual salary survey for Union and non-Union positions.
- Captured all employee required license and certification requirements in electronic format. Obtained cross-functional alignment.
- Clarified required safety training by job function, and improved tracking and reporting mechanisms. The Emergency Action Plan for Douglass Street has been updated, and safety audits completed at the large plants with MMA. Safety metrics including OSHA Dart; compliance training and confined space permits have been addressed.
- The Employee Satisfaction Survey was completed.

#### **2016 Projects and Initiatives**

- Labor negotiations will be conducted.
- Policies will be reviewed.
- Workshops to assist supervisors will be provided.
- Benefits: Retirement Planning
  - Individual and group educational sessions will be provided.
  - Individualized statements for participants in the Defined Benefit Plan will be Issued and group retirement planning sessions planned.
  - A presentation by Social Security will be offered.
  - A customized communication for the 457 plan will be created and provided to participants for the purpose of understanding all investment options.
- Worker’s Compensation
  - Processes and procedures will be explored to better manage claims.
- Safety
  - A 2016-17 Safety Training calendar will be designed and implemented.
  - The safety committee structure and the safety recognition program will be reviewed.

## Financial Overview

The Administrative Services budget request is \$5,351,882, which is \$102,054 or 1.9% higher than last year. The number of employees remains the same at 40 with one employee.

### Customer Service (F1) Group (\$1,541,787 request; \$20,711 or 1.4% higher)

- Salaries/Wages and Benefits: Same number of position. Increase attributed to general pay increases of 2% offset by lower overtime pay needed for collection as the economy improves customer delinquencies and salary paid new supervisor relative to prior supervisor.
- Contracted Services: Utility Bill Printing increased by \$2000 due to Direct Mail of Maine labor to print bills and bill stock. Computer Maintenance is up \$1,735 due to ITRON meter reading equipment maintenance agreement.
- Materials & Supplies: Cost to replace aging computers included in the budget (\$2,600).
- Other Expenses: Postage rate increase of 1 cent effective 1/1/16 incorporated into the budget. Additional training budget for new customer service staff members.

### Information Service (G1) Group (\$974,407 request; \$48,330 or 5.2% lower)

- Salaries/Wages and Benefits: Same number of positions. Increase attributed to general pay increase of 2% and adjustment of pay for new employee and adjustment to market for network administrator.
- Materials & Supplies: Increase reflects expected level of expenditures

### Financial Services (H1) Group (\$879,275 request; \$79,054 or 8.2% lower)

- Salaries/Wages and Benefits: Decreased staffing by one financial analyst.
- Contracted Services: Increase in fees related to higher number on-line payments.

### Employee Service (I1) Group (\$427,725 request; \$12,001 or 2.9% 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: Decrease due to reduction in amount reserved for potential deregulation costs.

### Executive (J1) Group (\$1,528,688 request; \$100,065 or 7.0% higher)

- Salaries/Wages and Benefits: Actual positions expected to be the same as the prior year.
- Contracted Services: Includes cost to conduct a water rate cost of service study (\$20,000), higher bank related fees (\$7,000). Last year's budget included completing a customer satisfaction survey, which will not be done again until 2017.
- Insurance: No premium increase. The budget assumed the purchase of the new insurance policy covering cyber security claims.
- Other Expenses: Decrease due to reduction in amount reserved for potential deregulation costs.



**Administrative Services: Total****Financial Summary:**

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Sub-Group:</b>						
F1 - Customer Service	\$1,338,491	\$706,916	\$1,521,076	\$1,541,787	\$20,711	1.4%
G1 - Information Services	894,490	438,381	926,077	974,407	48,330	5.2%
H1 - Financial Services	914,093	438,507	958,329	879,275	-79,054	-8.2%
I1 - Employee Services	371,588	218,552	415,724	427,725	12,001	2.9%
J1 - BOT & Senior Management	1,265,489	670,431	1,428,623	1,528,688	100,065	7.0%
<b>Grand Total</b>	<b>4,784,151</b>	<b>2,472,788</b>	<b>5,249,828</b>	<b>5,351,882</b>	<b>102,054</b>	<b>1.9%</b>
<b>Expense Type:</b>						
Salaries & Wages	2,283,336	1,107,252	2,469,891	2,495,235	25,344	1.0%
Employee Benefits	1,167,583	605,323	1,307,111	1,344,726	37,615	2.9%
Contracted Services	715,144	421,977	747,824	779,901	32,077	4.3%
Deferred Cost W/O	10,086	5,043	10,086	10,086	0	0.0%
Insurance	72,090	38,358	78,057	86,804	8,747	11.2%
Materials & Supplies	78,169	38,391	49,388	61,563	12,175	24.7%
Other Expense	409,936	232,869	536,661	525,217	-11,444	-2.1%
Tele/Other Utilities	24,954	12,525	28,022	26,298	-1,724	-6.2%
Transportation	22,854	11,050	22,789	22,052	-737	-3.2%
<b>Grand Total</b>	<b>4,784,151</b>	<b>2,472,788</b>	<b>5,249,828</b>	<b>5,351,882</b>	<b>102,054</b>	<b>1.9%</b>
<b>Headcount:</b>						
Full-Time	38	39	39	39	0	0.0%
Part-Time	2	1	1	1	0	0.0%
<b>Total</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>0</b>	<b>0.0%</b>

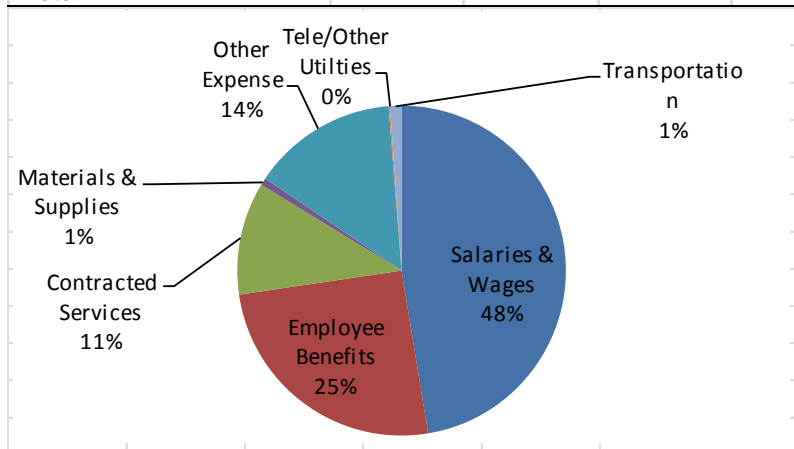
	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Salaries &amp; Wages</b>						
660111 - SALARIES/WAGES NON-UNION	1,664,011	804,557	1,816,356	1,837,805	21,449	1.2%
660121 - WAGES/REGULAR UNION	577,633	280,212	591,157	603,287	12,130	2.1%
660122 - WAGES/OVERTIME UNION	18,655	7,302	21,421	17,023	(4,398)	-20.5%
660131 - WAGES - REGULAR - TEMPS	-	3,731	3,838	-	(3,838)	-100.0%
660136 - CONTRACTED - TEMP	-	-	10,120	10,120	-	0.0%
66014 - VACATION ACCRUAL	(1,662)	-	-	-	-	n/a
660141 - TRUSTEES COMPENSATION	22,675	11,450	27,000	27,000	-	0.0%
66015 - SICKTIME ACCRUAL	(14,947)	-	-	-	-	n/a
66351 - CONTRACTED TEMPORARIES	16,971	-	-	-	-	n/a
<b>Salaries &amp; Wages Total</b>	<b>2,283,336</b>	<b>1,107,252</b>	<b>2,469,891</b>	<b>2,495,235</b>	<b>25,344</b>	<b>1.0%</b>
<b>Employee Benefits</b>						
660401 - FICA - EMPLOYERS' SHARE	169,168	84,054	188,172	190,112	1,940	1.0%
660405 - SAFETY/WHY PROGRAM ITEMS	4,725	1,727	6,575	5,825	(750)	-11.4%
660407 - EDUCATION SUBSIDY	602	-	-	-	-	n/a
660411 - MEALS ALLOWANCE	30	-	80	80	-	0.0%
660413 - PWD TRAINING PROGRAM	710	-	-	-	-	n/a
660418 - STIPENDS	300	200	200	200	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	8,424	10,006	5,350	5,100	(250)	-4.7%
660491 - FRINGE BENEFITS-REG/SAL	983,622	509,336	1,106,734	1,143,409	36,675	3.3%
<b>Employee Benefits Total</b>	<b>1,167,583</b>	<b>605,323</b>	<b>1,307,111</b>	<b>1,344,726</b>	<b>37,615</b>	<b>2.9%</b>
<b>Contracted Services</b>						
662062 - PRINTER REPAIR	6,000	-	3,500	2,500	(1,000)	-28.6%
662063 - COPIER MAINTENANCE/TONER	7,992	4,780	9,500	9,500	-	0.0%
6632 - ACCOUNTING SERVICES	31,250	32,500	32,500	34,000	1,500	4.6%
66331 - LEGAL - LABOR RELATIONS	34,585	43,828	55,000	60,000	5,000	9.1%
66333 - BOND COUNSEL	7,500	-	7,500	7,500	-	0.0%
66339 - LEGAL - OTHER	57,699	28,795	36,400	34,650	(1,750)	-4.8%
663545 - RADIO SERVICING AND EQUIP	3,762	65	5,000	4,500	(500)	-10.0%
663561 - COMPUTER LICENSES	704	2,080	5,000	4,000	(1,000)	-20.0%
663562 - COMPUTER MAINTAINENCE	186,951	108,675	202,909	208,569	5,660	2.8%
663563 - COMPUTER CONSULTING/OTHER	36,718	4,920	32,500	32,500	-	0.0%
6635801 - EMPLOYEE HEALTH SERVICES	5,189	5,196	8,745	7,600	(1,145)	-13.1%
663581 - UTILITY BILLING PRINTING	76,932	37,618	74,579	76,577	1,998	2.7%
663582 - PAYMENT PROCESSING	136,293	67,980	131,850	134,000	2,150	1.6%
663583 - RECEIVABLE COLLECTIONS	9,451	3,820	10,000	11,000	1,000	10.0%
663584 - BANK SERVICE CHARGES	12,730	9,417	12,000	19,200	7,200	60.0%
663587 - COURIER SERVICES	4,589	2,100	4,370	4,620	250	5.7%
663588 - EQUIPMENT MAINTENANCE	-	-	1,500	1,500	-	0.0%
663592 - RECRUITING SERVICES	2,463	2,134	7,250	7,250	-	0.0%
663594 - DIGSAFE	70,081	41,003	74,736	73,950	(786)	-1.1%
663595 - OUTPLACEMENT SERVICES	-	-	2,000	2,000	-	0.0%
663598 - HR CONSULTANT SERVICES	3,040	2,895	2,000	2,000	-	0.0%
6635984 - LANGUAGE INTERPRETATION	-	-	300	300	-	0.0%
663599 - MISC OTHER SERVICES	21,216	24,172	28,685	42,185	13,500	47.1%
<b>Contracted Services Total</b>	<b>715,144</b>	<b>421,977</b>	<b>747,824</b>	<b>779,901</b>	<b>32,077</b>	<b>4.3%</b>
<b>Deferred Cost W/O</b>						
66754 - DEFERRED COSTS WRITE OFF	10,086	5,043	10,086	10,086	-	0.0%
<b>Deferred Cost W/O Total</b>	<b>10,086</b>	<b>5,043</b>	<b>10,086</b>	<b>10,086</b>	<b>-</b>	<b>0.0%</b>
<b>Insurance</b>						
6657 - GEN LIABILITY INSURANCE	46,567	24,001	49,314	48,002	(1,312)	-2.7%
66592 - DAMAGES & CLAIMS-GOODWILL	939	1,283	4,000	4,000	-	0.0%
66593 - UMBRELLA INSURANCE COVER	3,606	1,503	4,072	3,007	(1,065)	-26.2%
66594 - PROFESSION/CRIME BONDING	20,978	11,571	20,671	31,795	11,124	53.8%
<b>Insurance Total</b>	<b>72,090</b>	<b>38,358</b>	<b>78,057</b>	<b>86,804</b>	<b>8,747</b>	<b>11.2%</b>

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Materials &amp; Supplies</b>						
6619 - ASSET PURCHASES	\$4,108	\$1,149	\$3,000	\$6,000	\$3,000	100.0%
66202 - TOOLS	-	261	-	400	400	n/a
66203 - VENDOR PURCHASED SUPPLIES	969	992	3,100	3,300	200	6.5%
662042 - SUPPLIES INVENTORY	2,619	1,362	2,600	2,600	-	0.0%
662043 - TOOL INVENTORY	1,981	2,329	225	3,075	2,850	1266.7%
66204301 - INVENTORY - TONER	10,259	4,467	10,150	8,000	(2,150)	-21.2%
66204302 - INVENTORY - PAPER	3,914	1,053	5,000	5,000	-	0.0%
66204303 - INVENTORY-COMPUTER EQUIP	3,987	3,070	4,188	7,200	3,012	71.9%
662047 - GARAGE INVENTORY	68	17	-	-	-	n/a
66205 - CONSUMABLE SUPPLIES	2,000	750	2,550	3,200	650	25.5%
66206 - COMPUTER RELATED EQUIP	-	1,224	4,575	22,788	18,213	398.1%
663564 - COMPUTER-RELATED EQUIP	48,263	21,716	14,000	-	(14,000)	-100.0%
<b>Materials &amp; Supplies Total</b>	<b>78,169</b>	<b>38,391</b>	<b>49,388</b>	<b>61,563</b>	<b>12,175</b>	<b>24.7%</b>
<b>Other Expense</b>						
6642 - EQUIPMENT RENT	2,916	1,458	2,950	2,950	-	0.0%
66601 - PUBLIC RELATIONS	1,453	628	1,600	1,950	350	21.9%
66609 - OTHER ADVERTISING	54,710	6,487	42,976	38,476	(4,500)	-10.5%
6675111 - IN STATE TRAINING	16,311	5,116	18,000	21,400	3,400	18.9%
6675112 - OUT OF STATE TRAINING	19	6	1,000	-	(1,000)	-100.0%
6675121 - IN STATE CONFERENCES	2,926	713	4,250	3,350	(900)	-21.2%
6675122 - OUT-OF-STATE CONFERENCES	19,929	11,934	26,500	27,500	1,000	3.8%
667513 - DUES	35,795	14,850	43,255	41,383	(1,872)	-4.3%
667514 - PROFESSIONAL LICENSES	272	-	900	900	-	0.0%
667515 - PERIODICAL SUBSCRIPTIONS	4,684	1,840	5,389	5,621	232	4.3%
667521 - POSTAGE - THIRD PARTY	188,390	137,452	214,520	216,067	1,547	0.7%
667522 - POSTAGE - INTERNAL	15,299	6,145	17,991	17,915	(76)	-0.4%
667523 - POSTAGE - EXPRESS DELIVER	139	68	350	350	-	0.0%
667531 - PRINTING COSTS	23,085	16,135	27,825	30,800	2,975	10.7%
667533 - FORMS STOCK	626	704	650	650	-	0.0%
667552 - SAFETY TRAINING	5,919	1,160	4,100	1,700	(2,400)	-58.5%
667553 - DOT SUBSTANCE ABUSE	1,052	703	2,000	2,000	-	0.0%
667555 - SAFETY EXPENSES	4,244	3,221	6,790	6,790	-	0.0%
667591 - UNIFORMS	8	78	-	-	-	n/a
667592 - FOOD SUPPLIES	1,718	676	3,500	2,850	(650)	-18.6%
667598 - GEN MANAGER CONTINGENCY	-	-	70,000	65,000	(5,000)	-7.1%
6675981 - GEN MNG - TRUSTEES	6,398	6,173	11,000	11,450	450	4.1%
6675982 - GEN MNG - COMMUNITY	19,313	14,959	25,115	24,615	(500)	-2.0%
667599 - OTHER MISCELLANEOUS	4,732	2,362	6,000	1,500	(4,500)	-75.0%
<b>Other Expense Total</b>	<b>409,936</b>	<b>232,869</b>	<b>536,661</b>	<b>525,217</b>	<b>(11,444)</b>	<b>-2.1%</b>
<b>Tele/Other Utilities</b>						
66112 - DATA LINES	6,236	3,219	17,302	16,398	(904)	-5.2%
66113 - CELLULAR PHONES	18,718	9,138	10,720	9,900	(820)	-7.6%
66114 - PAGERS	-	168	-	-	-	n/a
<b>Tele/Other Utilities Total</b>	<b>24,954</b>	<b>12,525</b>	<b>28,022</b>	<b>26,298</b>	<b>(1,724)</b>	<b>-6.2%</b>
<b>Transportation</b>						
66501 - TRANSPORTATION - INTERNAL	13,198	6,309	12,900	11,946	(954)	-7.4%
665019 - TRANS INTERNAL INACTIVE	4,476	2,517	4,289	4,406	117	2.7%
66502 - TRANSPORTATION - EXTERNAL	781	361	850	850	-	0.0%
66503 - MILEAGE REIMBURSEMENT	4,399	1,864	4,750	4,850	100	2.1%
<b>Transportation Total</b>	<b>22,854</b>	<b>11,050</b>	<b>22,789</b>	<b>22,052</b>	<b>(737)</b>	<b>-3.2%</b>
<b>Grand Total</b>	<b>4,784,151</b>	<b>2,472,788</b>	<b>5,249,828</b>	<b>5,351,882</b>	<b>102,054</b>	<b>1.9%</b>

## Administrative Services: Customer Services (F1)

### Financial Summary:

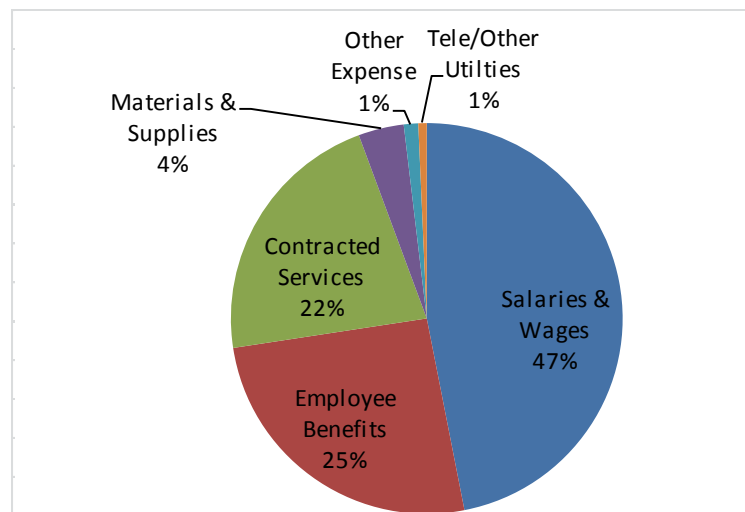
	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$639,982	\$325,389	\$727,781	\$730,998	\$3,217	0.4%
Employee Benefits	318,532	173,519	380,385	389,311	8,926	2.3%
Contracted Services	163,612	82,698	166,424	170,371	3,947	2.4%
Materials & Supplies	11,278	2,122	8,138	10,900	2,762	33.9%
Other Expense	184,822	113,138	218,011	220,707	2,696	1.2%
Tele/Other Utilities	1,916	999	2,148	2,148	0	0.0%
Transportation	18,349	9,051	18,189	17,352	-837	-4.6%
<b>Grand Total</b>	<b>1,338,491</b>	<b>706,916</b>	<b>1,521,076</b>	<b>1,541,787</b>	<b>20,711</b>	<b>1.4%</b>
<b>Programs:</b>						
74 - Control Center	178,663	91,671	160,263	144,269	-15,994	-10.0%
76 - Collection	57,144	25,398	60,163	60,999	836	1.4%
77 - Billing	267,827	150,016	324,743	307,206	-17,537	-5.4%
80 - Meter Reading	79,186	32,167	70,891	74,973	4,082	5.8%
98 - Training	51,123	45,505	48,836	62,273	13,437	27.5%
99 - Administration	704,547	362,160	856,180	892,067	35,887	4.2%
<b>Grand Total</b>	<b>1,338,491</b>	<b>706,916</b>	<b>1,521,076</b>	<b>1,541,787</b>	<b>20,711</b>	<b>1.4%</b>
<b>Funds:</b>						
10 - General	1,275,643	681,382	1,439,523	1,480,788	41,265	2.9%
20 - Water General	37,752	16,101	42,433	39,978	-2,455	-5.8%
30 - Water Standish	1,642	809	1,898	1,737	-161	-8.5%
51 - WW Cape Elizabeth	2,180	589	3,334	1,071	-2,263	-67.9%
53 - WW Cumberland	449	196	3,414	330	-3,084	-90.3%
54 - WW Falmouth	794	327	457	482	25	5.5%
55 - WW Windham LF	0	0	75	37	-38	-50.7%
57 - WW Portland	10,646	3,644	14,258	9,500	-4,758	-33.4%
59 - WW South Portland	4,680	1,713	5,982	3,691	-2,291	-38.3%
61 - WW Gorham	1,261	697	3,259	923	-2,336	-71.7%
62 - WW Westbrook	3,443	1,459	6,444	3,250	-3,194	-49.6%
<b>Grand Total</b>	<b>1,338,491</b>	<b>706,916</b>	<b>1,521,076</b>	<b>1,541,787</b>	<b>20,711</b>	<b>1.4%</b>
<b>Headcount:</b>						
Full-Time	14	14	14	14	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>0</b>	<b>0.0%</b>



## Administrative Services: Information Services (G1)

### Financial Summary:

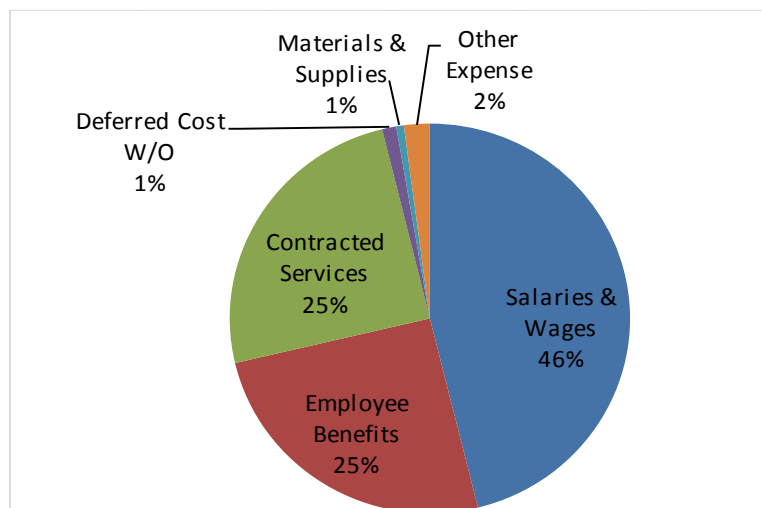
	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$409,076	\$206,497	\$433,391	\$456,886	\$23,495	5.4%
Employee Benefits	210,387	112,787	231,620	249,958	18,338	7.9%
Contracted Services	204,386	78,184	211,900	212,050	150	0.1%
Materials & Supplies	55,863	33,841	31,500	36,600	5,100	16.2%
Other Expense	7,387	3,495	11,275	11,575	300	2.7%
Tele/Other Utilities	6,708	3,087	5,890	6,738	848	14.4%
Transportation	682	492	500	600	100	20.0%
<b>Grand Total</b>	<b>894,490</b>	<b>438,381</b>	<b>926,077</b>	<b>974,407</b>	<b>48,330</b>	<b>5.2%</b>
<b>Programs:</b>						
88 - Safety	61,796	-510	0	0	0	n/a
94 - Technology Teams	14,889	0	0	0	0	n/a
98 - Training	44,203	38,660	34,619	36,397	1,778	5.1%
99 - Administration	773,602	400,231	891,457	938,010	46,553	5.2%
<b>Grand Total</b>	<b>894,490</b>	<b>438,381</b>	<b>926,077</b>	<b>974,407</b>	<b>48,330</b>	<b>5.2%</b>
<b>Funds:</b>						
10 - General	894,348	438,381	926,077	974,407	48,330	5.2%
20 - Water General	142	0	0	0	0	n/a
<b>Grand Total</b>	<b>894,490</b>	<b>438,381</b>	<b>926,077</b>	<b>974,407</b>	<b>48,330</b>	<b>5.2%</b>
<b>Headcount:</b>						
Full-Time	6	7	7	7	0	0.0%
Part-Time	1	0	0	0	0	n/a
<b>Total</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>0</b>	<b>0.0%</b>



## Administrative Services: Financial Services (H1)

### Financial Summary:

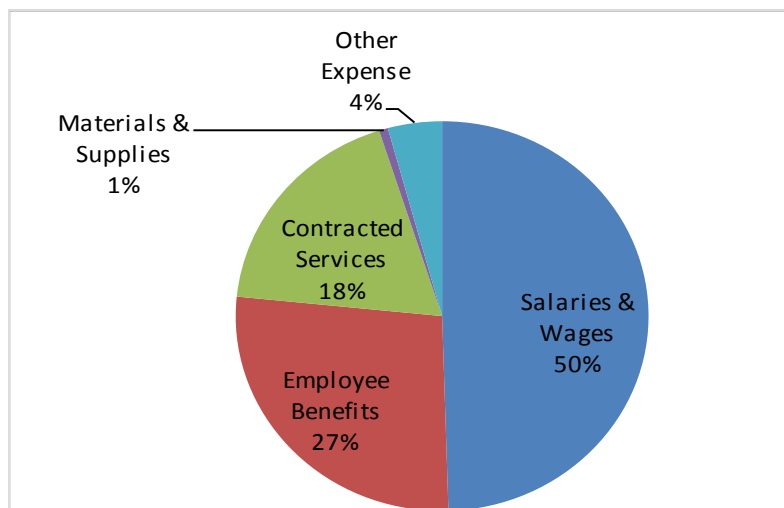
	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$430,176	\$181,801	\$463,318	\$405,471	-\$57,847	-12.5%
Employee Benefits	240,325	98,979	248,625	221,338	-27,287	-11.0%
Contracted Services	214,668	145,527	212,885	218,310	5,425	2.5%
Deferred Cost W/O	10,086	5,043	10,086	10,086	0	0.0%
Materials & Supplies	6,035	1,464	4,925	5,325	400	8.1%
Other Expense	12,688	5,637	18,090	18,345	255	1.4%
Transportation	116	58	400	400	0	0.0%
<b>Grand Total</b>	<b>914,093</b>	<b>438,507</b>	<b>958,329</b>	<b>879,275</b>	<b>-79,054</b>	<b>-8.2%</b>
<b>Programs:</b>						
77 - Billing	165,928	80,796	164,141	166,516	2,375	1.4%
98 - Training	16,194	18,129	35,119	32,191	-2,928	-8.3%
99 - Administration	731,971	339,583	759,069	680,568	-78,501	-10.3%
<b>Grand Total</b>	<b>914,093</b>	<b>438,507</b>	<b>958,329</b>	<b>879,275</b>	<b>-79,054</b>	<b>-8.2%</b>
<b>Funds:</b>						
10 - General	820,536	410,165	879,878	803,659	-76,219	-8.7%
20 - Water General	93,557	28,342	78,451	75,616	-2,835	-3.6%
<b>Grand Total</b>	<b>914,093</b>	<b>438,507</b>	<b>958,329</b>	<b>879,275</b>	<b>-79,054</b>	<b>-8.2%</b>
<b>Headcount:</b>						
Full-Time	9	9	9	8	-1	-11.1%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>-1</b>	<b>-11.1%</b>



## Administrative Services: Employee Services (I1)

### Financial Summary:

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$203,363	\$100,665	\$204,716	\$210,847	\$6,131	3.0%
Employee Benefits	104,030	54,986	110,483	115,345	4,862	4.4%
Contracted Services	44,742	53,803	74,745	78,600	3,855	5.2%
Materials & Supplies	2,227	276	2,300	3,000	700	30.4%
Other Expense	15,910	8,147	19,880	18,053	-1,827	-9.2%
Tele/Other Utilities	1,176	600	3,100	1,380	-1,720	-55.5%
Transportation	140	75	500	500	0	0.0%
<b>Grand Total</b>	<b>371,588</b>	<b>218,552</b>	<b>415,724</b>	<b>427,725</b>	<b>12,001</b>	<b>2.9%</b>
<b>Programs:</b>						
88 - Safety	31	667	0	0	0	n/a
98 - Training	9,868	9,532	15,049	16,068	1,019	6.8%
99 - Administration	361,689	208,353	400,675	411,657	10,982	2.7%
<b>Grand Total</b>	<b>371,588</b>	<b>218,552</b>	<b>415,724</b>	<b>427,725</b>	<b>12,001</b>	<b>2.9%</b>
<b>Funds:</b>						
10 - General	371,588	218,552	415,724	427,725	12,001	2.9%
<b>Grand Total</b>	<b>371,588</b>	<b>218,552</b>	<b>415,724</b>	<b>427,725</b>	<b>12,001</b>	<b>2.9%</b>
<b>Headcount:</b>						
Full-Time	3	3	3	3	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0.0%</b>

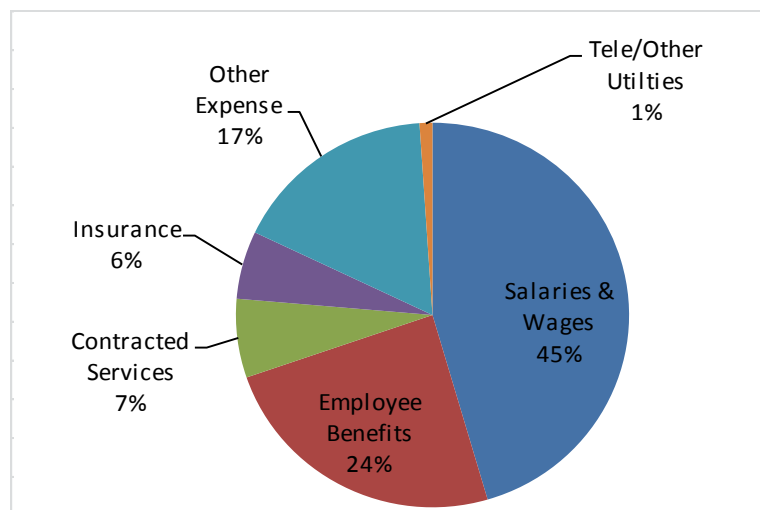




## Administrative Services: Executive (J1)

### Financial Summary:

	2014 Actual	2015 Jan- Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$600,740	\$292,900	\$640,684	\$691,033	\$50,349	7.9%
Employee Benefits	294,309	165,053	335,998	368,774	32,776	9.8%
Contracted Services	87,735	61,765	81,870	100,570	18,700	22.8%
Insurance	72,090	38,358	78,057	86,804	8,747	11.2%
Materials & Supplies	2,765	689	2,525	5,738	3,213	127.2%
Other Expense	189,129	102,453	269,405	256,537	-12,868	-4.8%
Tele/Other Utilities	15,154	7,838	16,884	16,032	-852	-5.0%
Transportation	3,567	1,375	3,200	3,200	0	0.0%
<b>Grand Total</b>	<b>1,265,489</b>	<b>670,431</b>	<b>1,428,623</b>	<b>1,528,688</b>	<b>100,065</b>	<b>7.0%</b>
<b>Programs:</b>						
5 - Public Relations	179,227	91,170	179,301	172,998	-6,303	-3.5%
98 - Training	51,724	20,717	62,215	67,479	5,264	8.5%
99 - Administration	1,034,538	558,544	1,187,107	1,288,211	101,104	8.5%
<b>Grand Total</b>	<b>1,265,489</b>	<b>670,431</b>	<b>1,428,623</b>	<b>1,528,688</b>	<b>100,065</b>	<b>7.0%</b>
<b>Funds:</b>						
10 - General	1,234,607	631,475	1,328,623	1,452,188	123,565	9.3%
20 - Water General	30,429	38,741	100,000	76,500	-23,500	-23.5%
50 - Wastewater General	453	215	0	0	0	n/a
<b>Grand Total</b>	<b>1,265,489</b>	<b>670,431</b>	<b>1,428,623</b>	<b>1,528,688</b>	<b>100,065</b>	<b>7.0%</b>
<b>Headcount:</b>						
Full-Time	6	6	6	7	1	16.7%
Part-Time	1	1	1	1	0	0.0%
<b>Total</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>8</b>	<b>1</b>	<b>14.3%</b>

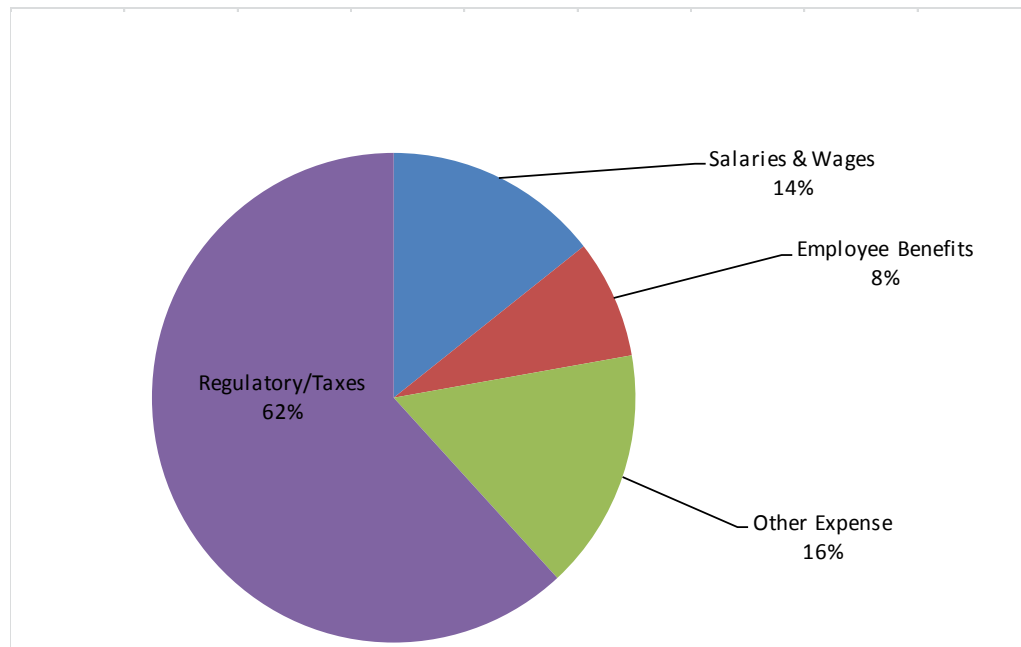


## Non-Departmental

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.

	2014 Actual	2015 Jan-Jun	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$0	\$0	\$50,002	\$50,000	-\$2	0.0%
Employee Benefits	0	0	26,811	27,245	434	1.6%
Contracted Services	75,000	0	0	0	0	n/a
Deferred Cost W/O	81,556	0	0	0	0	n/a
Other Expense	146,872	30,475	57,800	55,400	-2,400	-4.2%
Regulatory/Taxes	214,999	180,085	226,586	214,896	-11,690	-5.2%
<b>Grand Total</b>	<b>518,427</b>	<b>210,560</b>	<b>361,199</b>	<b>347,541</b>	<b>-13,658</b>	<b>-3.8%</b>

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 advocate. 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. The budget includes an amount to be available for work force management purposes.



## Introduction

Total salaries, wages and benefits budget for 2016 is \$16,004,625 which is \$259,714 or 1.6% higher than the 2015 budget.

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

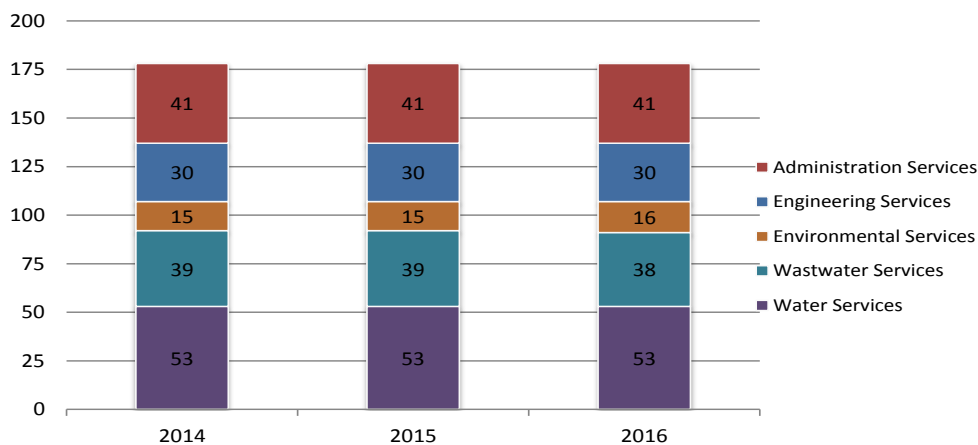
	2014 Actual	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages	\$10,008,325	\$10,533,869	\$10,695,807	\$161,938	1.5%
Employee Benefits	4,703,087	5,211,041	5,397,245	\$186,204	3.6%
	14,711,412	15,744,911	16,093,052	348,141	2.2%

Employees record their labor hours by specific water and wastewater operating funds and capital projects. Benefits are allocated based on the labor dollars to the funds. It is estimated staff will allocate \$489,381 in labor/benefits to capital projects in 2016; which is \$21,449 (4.2%) lower than the 2015 budget.

	2013 Actual	2014 Budget	2015 Budget	Budget Diff \$	Budget Diff %
Operations & Maintenance	\$14,272,753	\$15,234,082	\$15,603,675	\$369,593	2.4%
Capital	438,659	510,830	489,381	(21,449)	-4.2%
	14,711,412	15,744,911	16,093,056	348,145	2.2%

### Total Employee Headcount:

Authorized headcount remains at 178; this is the same as in the previous three budgets (2013, 2014 & 2015). In addition, there was a position shift between E2 to E7.



Engineering Services added a SCADA Specialist and eliminated an Engineering Technician. Environmental Services added a Laboratory Assistant and eliminated an Environmental Scientist. Also, they made the Environmental Scientist full-time. Wastewater Services eliminated a Wastewater Operator. Water Services added a Transmission Distribution Supervisor and eliminated a Distribution System Foreperson.

## Salary Costs

The Budget assumes total labor costs will increase by 1.5% (\$161,937).

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

	2014 Actual	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	\$9,060,598	\$9,597,748	\$9,790,230	\$192,482	2.0%
Overtime	504,774	464,459	456,102	-8,357	-1.8%
Doubletime	59,934	50,043	51,703	1,660	3.3%
Standby	<u>130,405</u>	<u>121,235</u>	<u>124,928</u>	<u>3,693</u>	<u>3.0%</u>
Premium Time/Standby	695,113	635,737	632,733	-3,004	-0.5%
Trustee Compensation	22,675	27,000	27,000	0	0.0%
District Employed Temps	150,710	183,393	157,724	-25,669	-14.0%
Agency Temps	<u>79,229</u>	<u>89,992</u>	<u>88,120</u>	<u>-1,872</u>	<u>-2.1%</u>
Temporary Employees	229,939	273,385	245,844	-27,541	-10.1%
Total Labor Cost	10,008,325	10,533,870	10,695,807	161,937	1.5%

### Total Labor broken out by O&M and Capital:

	2014 Actual	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Operating Expense	\$9,699,724	\$10,178,034	\$10,361,351	\$183,317	1.8%
Capital Expenditures	<u>308,601</u>	<u>355,836</u>	<u>334,456</u>	<u>-21,380</u>	<u>-6.0%</u>
	10,008,325	10,533,869	10,695,807	161,938	1.5%
Operating Expense	96.9%	96.6%	96.9%		
Capital Expenditures	<u>3.1%</u>	<u>3.4%</u>	<u>3.1%</u>		
	100.0%	100.0%	100.0%		

## Labor Hours/Average Pay Rates

Budgeted hours for the 2016 Budget were down by 4,034 hours or 1%. Regular time decreased 1,402 hours as one employee went from 40 hours/week to 32 and one position in Environmental Services will start in July 2016 and is therefore not a full year. Generally there were decreases across all wage groups.

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

	2014 Actual	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	363,431	369,148	367,746	(1,402)	-0.4%
Overtime	15,283	13,569	13,018	(551)	-4.1%
Doubletime	1,258	1,074	1,084	10	0.9%
<u>Standby</u>	<u>5,355</u>	<u>5,356</u>	<u>5,423</u>	<u>67</u>	<u>1.3%</u>
Premium Time/Standby	21,895	19,999	19,525	(474)	-2.4%
District Employed Temps	12,030	14,526	12,369	(2,158)	-14.9%
<u>Agency Temps</u>	<u>3,961</u>	<u>4,690</u>	<u>4,690</u>	<u>-</u>	<u>0.0%</u>
Temporary Employees	15,991	19,216	17,059	(2,158)	-11.2%
	401,318	408,363	404,330	(4,034)	-1.0%

### Labor Rates by Type:

On average pay rates were increased 2.4% due to increases above the average 2% in many positions. 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.

	2014 Actual	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	25.53	26.00	26.62	0.62	2.4%
Overtime	33.47	34.23	35.04	0.81	2.4%
Doubletime	45.36	46.59	47.70	1.10	2.4%
<u>Standby</u>	<u>22.21</u>	<u>22.64</u>	<u>23.04</u>	<u>0.40</u>	<u>1.8%</u>
Premium Time/Standby	31.25	31.79	32.41	0.62	1.9%
District Employed Temps	12.56	12.62	12.75	0.13	1.0%
<u>Agency Temps</u>	<u>19.24</u>	<u>19.19</u>	<u>18.79</u>	<u>(0.40)</u>	<u>-2.1%</u>
Temporary Employees	14.29	14.23	14.41	0.18	1.3%
	25.28	25.81	26.48	0.67	2.6%

## Employee Benefits

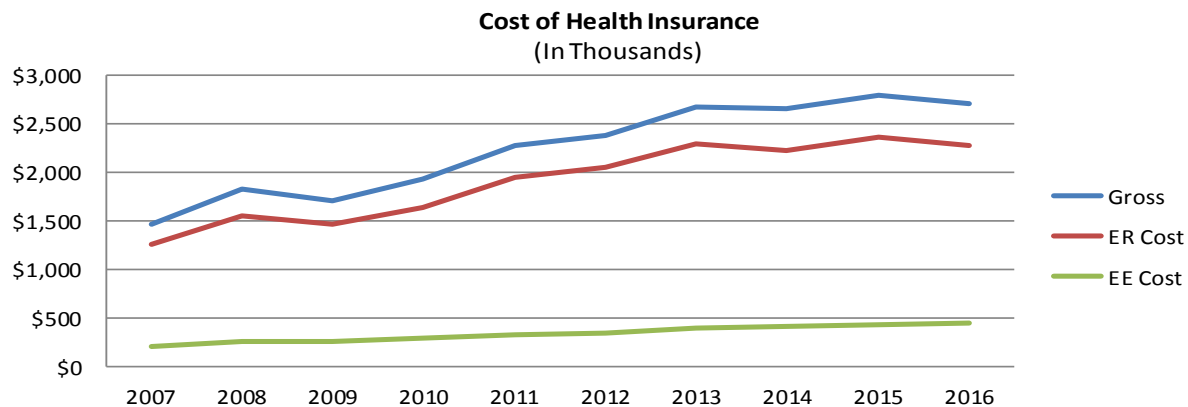
In order to qualify for benefits employees must work more than 20/24 hours/week (non-union/union). Seasonal or temporary employees do not qualify for benefits. Benefits are charged to departments as a percentage of the regular non-premium pay. In 2016, the benefits percentage increased from 45.97% to 46.84%. Pension costs rose 11.9% while health insurance expense decreased 4.0%.

### Health Insurance

The 2016 Budget assumes the addition of a new “Two Adult” option which allows the 18 employees who only insure themselves and a spouse (no children) to move out of the more expensive “Family” option. Overall, the District’s gross insurance cost (before employee contributions) is expected to decrease 0.91%.

The 2015 Budget assumed the District would pay 95% of an employee’s health insurance premiums and 70% of the premiums for dependents. The 2016 Budget assumes a reduction in the employee coverage to 94% while keeping the dependent percentage the same. The result is an increase in employee contributions of \$10,885 (2.5%) to \$439,628.

The 2016 Budget for Health Insurance is \$2,272,300. This is \$92,328 (3.9%) reduction from the prior year due to the issues note above but also because the 2015 Budget assumed a rate increase of 4.3% when in fact there was no increase.



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 continues to pay \$20/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
2015	164	9	173
<u>2016</u>	<u>166</u>	<u>7</u>	<u>173</u>
Change	2	-2	0

## **Employee Benefits (continued)**

### **Pension**

Pension related expenses are \$1,544,500 in the 2016 Budget. The District offers employees a defined benefit and a defined contribution pension plans.

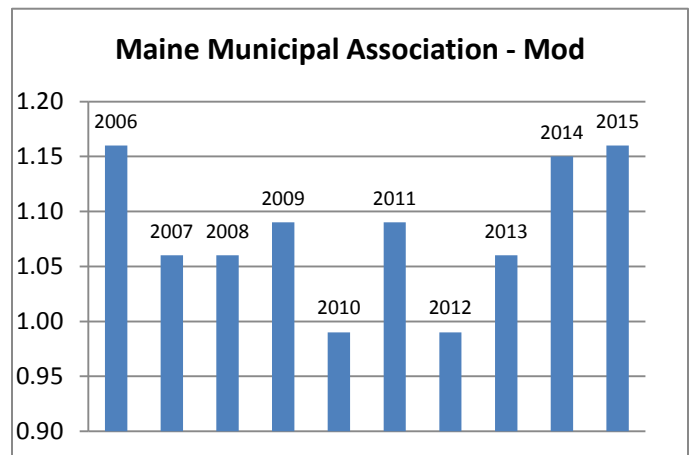
The defined benefit plan contributions in the 2016 Budget increased \$191,500 (19.2%) to \$1,191,500. The contribution is consistent with Board adopted long-term funding policy and estimated by the District's actuary. The actual actuarially determined contribution will be calculated late 2016. The plan is solely funded by the District without any employee contribution.

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. The cost of this match is \$125,000.

New Union employees hired starting in 2011 (and Non-Union in 2012) are not enrolled in the defined benefit plan but in a new defined compensation plan. The plan requires employees to contribute 3.0% of pay which the District matches at a rate of 150%. The expense for the match is budgeted at \$125,000 in 2016.

### **Workers Compensation**

The District participates in the Maine Municipal Association's workers compensation program. The cost in the 2016 Budget is \$276,153. The premium assessed is based on amount of wages and a claim experience factor. In 2015, the "Mod" factor is 1.16 which indicates the District injury experience is slightly higher than average (a factor of 1.0 is average). Our 10 year average is 1.08.



### **Other Benefits**

Other benefits which include dental, uniforms, unemployment, long-term disability and life insurance totaled \$485,519.



**Employee Benefits (continued)**

	2014 Actual	2015 Budget	2016 Budget	Budget Diff \$	Budget Diff %
<b>Health Insurance:</b>					
6604041 - HEALTH INSURANCE-EMPLOYEE	\$2,235,619	\$2,364,628	\$2,272,300	(\$92,328)	-3.9%
6604043 - MEDICAL INSURANCE PAYOUT	7,984	8,944	7,280	(1,664)	-18.6%
	2,243,603	2,373,572	2,279,580	(93,992)	-4.0%
<b>Pension Expenses:</b>					
6604061 - PENSION EXPENSES	103,596	126,000	118,000	(8,000)	-6.3%
6604062 - PENSION CONTRIBUTION	926,000	1,000,000	1,191,500	191,500	19.2%
6604063 - DEF COMP MANDATORY	84,519	101,633	100,000	(1,633)	-1.6%
6604064 - DEF COMP ELECTIVE	159,113	137,875	125,000	(12,875)	-9.3%
6604065 - PENSION LEGAL EXPENSE	7,049	15,000	10,000	(5,000)	-33.3%
	1,280,277	1,380,508	1,544,500	163,992	11.9%
<b>Workers Compensation:</b>					
660409 - WORKERS' COMPENSATION	238,894	247,683	267,153	19,470	7.9%
6604091 - WORKES COMP DEDUCTABLE	3,682	9,000	9,000	-	0.0%
	242,576	256,683	276,153	19,470	7.6%
<b>Other Benefits:</b>					
66025 - BENEFITS CONTINGENCY	-	45,000	150,000	105,000	233.3%
660402 - LONG-TERM DISABILITY	26,159	25,500	26,500	1,000	3.9%
660403 - LIFE INSURANCE	21,679	23,500	23,500	-	0.0%
660407 - EDUCATION SUBSIDY	4,087	20,000	11,000	(9,000)	-45.0%
660408 - PROGRAMS ADMINISTRATION	6,794	7,100	7,100	-	0.0%
660410 - UNEMPLOYMENT COMPENSATION	10,101	38,500	25,000	(13,500)	-35.1%
660413 - PWD TRAINING PROGRAM	652	17,800	17,800	-	0.0%
6604151 - FIELD UNIFORMS	33,104	47,793	47,179	(614)	-1.3%
6604152 - OFFICE CLOTHING	4,874	7,200	7,200	-	0.0%
660416 - DENTAL COVERAGE	48,157	51,600	54,180	2,580	5.0%
660417 - WELLNESS PROGRAM	1,045	2,500	2,500	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	32,108	34,000	34,750	750	2.2%
660420 - WORKFORCE PLANNING	255	1,000	1,000	-	0.0%
660421 - POST RETIREMENT BENEFITS	8,681	29,700	29,700	-	0.0%
660422 - ACTUARY NON-PENSION	-	8,000	7,000	(1,000)	-12.5%
663592 - RECRUITING SERVICES	-	40,000	40,000	-	0.0%
66595 - INDENTITY FRAUD INSURANCE	1,067	1,100	1,067	(33)	-3.0%
667599 - OTHER MISCELLANEOUS	28	1,029	43	(986)	-95.8%
	198,791	401,322	485,519	84,197	21.0%
Total Employee Benefits	3,965,247	4,412,085	4,585,752	173,667	3.9%
660401 - FICA - Employers' Share	737,840	798,956	811,493	12,537	1.6%
Total Costs	4,703,087	5,211,041	5,397,245	186,204	3.6%
Total Regular Labor (Benefits Basis)	9,060,598	9,597,748	9,790,230	192,482	2.0%
Benefit Rate	43.76%	45.97%	46.84%	0.87%	1.9%

**Note:** The total employee benefits expense above (\$5,397,245) does not include \$66,494 in employee benefits charged directly to departments. With these costs the District's benefits cost is \$5,463,739.

## Employee Benefits (continued)

### Authorized Headcount

The overall headcount is unchanged at 178 between 2015 and 2016; however, several changes are between and within sub-departments as outline below:

	<b><u>Added</u></b>	<b><u>Eliminated</u></b>	<b><u>Notes:</u></b>
A2	Transmission Distribution Supervisor	Distribution Sys Foreperson	
A5	Environmental Educator	None	Eliminated 2 part-time positions
B3	None	Wastewater Operator	
H1	None	Financial Analyst	Transferred position to J1
J1	Workforce Management	None	Transferred position from H1
L6	Laboratory Assistant II	Environmental Scientist	
E7	SCADA Specialist	Engineering Technician I	

	2014	2015	2016	14 to 16	15 to 16
<b><u>Water Services</u></b>					
A1 - Water Administration	5.00	5.00	5.00	0.00	0.00
A2 - Transmission/Distribution	23.00	22.00	22.00	-1.00	0.00
A3 - Water Treatment	11.00	11.00	11.00	0.00	0.00
A6 - Utility Services	<u>14.00</u>	<u>15.00</u>	<u>15.00</u>	<u>1.00</u>	<u>0.00</u>
	<b>53.00</b>	<b>53.00</b>	<b>53.00</b>	<b>0.00</b>	<b>0.00</b>
<b><u>Wastewater Services</u></b>					
B1 - Wastewater Administration	1.00	1.00	1.00	0.00	0.00
B3 - Portland (East End) WWTF	19.00	19.00	18.00	-1.00	-1.00
B4 - Westbrook/Cape/Peaks WWTF's	6.00	6.00	6.00	0.00	0.00
L9 - Water / WW Systems	<u>13.00</u>	<u>13.00</u>	<u>13.00</u>	<u>0.00</u>	<u>0.00</u>
	<b>39.00</b>	<b>39.00</b>	<b>38.00</b>	<b>-1.00</b>	<b>-1.00</b>
<b><u>Environmental Services</u></b>					
A5 - Environmental Services	8.00	8.00	9.00	1.00	1.00
L6 - Water / WW Laboratory	<u>7.00</u>	<u>7.00</u>	<u>7.00</u>	<u>0.00</u>	<u>0.00</u>
	<b>15.00</b>	<b>15.00</b>	<b>16.00</b>	<b>1.00</b>	<b>1.00</b>
<b><u>Engineering Services</u></b>					
C1 - Facility Services Administration	10.00	10.00	10.00	0.00	0.00
E2 - Planning & Design	17.00	17.00	16.00	-1.00	-1.00
E7 - Instrumentation	<u>3.00</u>	<u>3.00</u>	<u>4.00</u>	<u>1.00</u>	<u>1.00</u>
	<b>30.00</b>	<b>30.00</b>	<b>30.00</b>	<b>0.00</b>	<b>0.00</b>
<b><u>Administrative Services</u></b>					
F1 - Customer Service	14.00	14.00	14.00	0.00	0.00
G1 - Information Services	7.00	7.00	7.00	0.00	0.00
H1 - Financial Services	9.00	9.00	8.00	-1.00	-1.00
I1 - Employee Services	3.00	3.00	3.00	0.00	0.00
J1 - Executive Office	7.00	7.00	8.00	1.00	1.00
Non-Departmental	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>0.00</u>	<u>0.00</u>
	<b>41.00</b>	<b>41.00</b>	<b>41.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total</b>	<b>178.00</b>	<b>178.00</b>	<b>178.00</b>	<b>0.00</b>	<b>0.00</b>

## Non-Union Positions

The overall Non-Union headcount increased from 56 to 59.

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

<u>Range 1 (\$30,197 to \$45,355)</u>	<u>2015</u>	<u>2016</u>	<u>Change</u>	<u>Range 4 (\$61,597 to \$92,395)</u>	<u>2015</u>	<u>2016</u>	<u>Change</u>
Environmental Educator (5029)	0	1	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
	2	3	1	Eng/Asset Mgmt Srv Mngr (9031)	1	1	0
				Environmental Srv Manager (9020)	1	1	0
<u>Range 2 (\$44,032 to \$66,048)</u>	<u>2015</u>	<u>2016</u>	<u>Change</u>	Information Srvs Manager (9010)	1	1	0
Asset Analyst (9043)	1	1	0	Senior Project Engineer (9045)	<u>3</u>	<u>3</u>	<u>0</u>
BSA - GIS (5022)	1	1	0		9	9	0
Business Systems Analyst (9501)	1	1	0				
Chief of Security Oper (1069)	1	1	0	<u>Range 5 (\$69,056 to \$103,674)</u>	<u>2015</u>	<u>2016</u>	<u>Change</u>
Cust Serv Supervisor (5030)	1	1	0	Director of Opr Srvs (9011)	2	2	0
Cust Srv Program Manager (9502)	1	1	0	Exec Director of EE Srvs (9007)	<u>1</u>	<u>1</u>	<u>0</u>
Design Engineer (5023)	1	1	0		3	3	0
Environmental Educ Coord (5017)	1	1	0				
ES Conslt Safety/Training (5004)	1	1	0	<u>Range 6 (\$77,718 to \$116,455)</u>	<u>2015</u>	<u>2016</u>	<u>Change</u>
ES Consultant Employment (5003)	1	1	0	Corporate Counsel (9035)	1	1	0
Financial Analyst (5020)	3	2	-1	Exec Director of Admin (9004)	1	1	0
Network Admin I (9503)	1	1	0	Exec Director of AMAP (9005)	<u>1</u>	<u>1</u>	<u>0</u>
Network Admin II (9044)	1	1	0		3	3	0
Purchasing Agent/Buyer (5005)	1	1	0				
Right of Way Agent (5014)	1	1	0	<u>Range 7 (\$93,598 to \$140,277)</u>	<u>2015</u>	<u>2016</u>	<u>Change</u>
Scheduler/Coord AMAP (5032)	1	1	0	General Manager (9018)	1	1	0
Scheduler/Coordinator Ops (5033)	1	1	0				
Source Protection Coord (5018)	<u>1</u>	<u>1</u>	<u>0</u>	Workforce Management	<u>2015</u>	<u>2016</u>	<u>Change</u>
	20	19	-1	Position (9600)	2	3	1
<u>Range 3 (\$51,370 to \$77,116)</u>	<u>2015</u>	<u>2016</u>	<u>Change</u>	Full Time Positions	55	58	3
Admin Facility Chief Oper (5019)	1	1	0	Part Time Positions	<u>1</u>	<u>1</u>	<u>0</u>
Database Administrator (9027)	1	1	0	<b>Total Non-Union Positions:</b>	<b>56</b>	<b>59</b>	<b>3</b>
Network Admin III (9026)	1	1	0				
Project Engineer (9030)	3	3	0				
Public Relations Manager (PT) (9025)	1	1	0				
Regulatory Security Advsr (9028)	1	1	0				
SCADA Specialist (5034)	0	1	1				
Transm Dist Supervisor (5011)	1	2	1				
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>				
	16	18	2				

## Union Positions

For the 2016 Budget, the Union headcount was down three to 119. The number of part-time positions was unchanged at one. The current Union Contract was ratified in March 2013, retro to November 2012; the rates shown (probationary and regular) will be paid through October 2015.

<b><u>Paygrade - D (\$16.75/\$17.62)</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>Change</u></b>	<b><u>Paygrade - I (\$22.40/\$23.55)</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>Change</u></b>
AMR Specialist (1577)	1	1	0	Instrumentation Maint Per (1038)	2	2	0
Laboratory Assistant II (1092)	0	1	1	Senior WW Operator (1055)	5	5	0
				Utility Specialist (1085)	13	13	0
				Wtr Treat Plant Sys Oper (1051)	7	7	0
				WW System Maint/Operator (1082)	2	2	0
					29	29	0
<b><u>Paygrade - E (\$17.72/\$18.65)</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>Change</u></b>	<b><u>Paygrade - J (\$23.75/\$25.00)</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>Change</u></b>
Admin Dept Asst Finance (1027)	3	3	0	Environmental Scientist (1022)	5	4	-1
Administrative Asst Ops (1089)	1	1	0	Facility Maint Foreperson (1565)	1	1	0
Administrative Asst WW (1083)	1	1	0	Tech Maint Pers Mech/Elec (1073)	5	5	0
	5	5	0	Tech Maint Person SLWTF (1070)	1	1	0
				Water Resource Specialist (1021)	4	4	0
				(1 of 4 is part-time)	16	15	-1
<b><u>Paygrade - F (\$18.80/\$19.77)</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>Change</u></b>	<b><u>Paygrade - K (\$25.16/\$26.45)</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>Change</u></b>
Construction Technician (1005)	2	2	0	Dist System Foreperson (1557)	6	5	-1
Cust Serv Coord Ctrl Ctr (1008)	3	3	0	Garage Foreperson (1528)	1	1	0
Equip Operator II WW (1025)	2	2	0	Lead Env Scien-Foreperson (1573)	1	1	0
Facility Maint Technician (1086)	3	3	0	Operations Foreman, Sys (1090)	1	1	0
Facility Supp Generalist (1091)	1	1	0	Operations Foreperson (1053)	3	3	0
Technical Admin Asst (1522)	1	1	0	Ops Foreman, WW System (1093)	1	1	0
Wastewater Operator (1006)	4	3	-1		13	12	-1
Water System Operator (1004)	9	9	0				
	25	24	-1				
<b><u>Paygrade - G (\$19.93/\$20.96)</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>Change</u></b>	<b><u>Paygrade - L (\$26.70/\$28.08)</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>Change</u></b>
Collections Coordinator (1028)	1	1	0	Inst Maint Foreperson (1537)	1	1	0
Cust Serv Coordinator (1017)	3	3	0	Tech Maint Foreperson (1569)	2	2	0
Engineering Tech II (1019)	1	1	0		3	3	0
Equip Operator I (1023/1024)	4	4	0				
Garage Mechanic I (1029)	1	1	0				
Millwright I (1049)	1	1	0				
WW Plant Maint/Operator (1075)	7	7	0				
WW Systems Operator (1077)	3	3	0				
	21	21	0				
<b><u>Paygrade - H (\$21.15/\$22.23)</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>Change</u></b>	Full Time Positions	122	119	-3
Asset Mgmt Technician (1575)	3	3	0	Part Time Positions	1	1	0
Cust Serv Coordinator (1017)	3	3	0	Total Union Positions	122	119	-3
Collection Sys Maint Oper (1576)	1	1	0				
Engineering Technician (1020)	1	0	-1				
Inv Control Leadperson (1564)	1	1	0				
	9	8	-1				

## Temporary & Non-Benefit Employees

Temporary and non-benefit employees supplement regular employees particularly during the busy times of year. The Lab Assist II position is a full-time, non-benefit, employee (usually a college “intern”) who works 20 hours/week. All other positions are seasonal employees who also do not receive benefits. The position totals are listed as full time equivalents (FTE’s). Temporary employees hired via outside agencies are also included below.

<b>Water Operations</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Change '14 to 16</b>
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>
	<b>3.8</b>	<b>3.6</b>	<b>3.6</b>	<b>-0.2</b>
<b><u>Wastewater Operations</u></b>				
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>
	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.0</b>
<b><u>Environmental Services</u></b>				
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>
	<b>3.6</b>	<b>3.5</b>	<b>2.5</b>	<b>-1.1</b>
<b><u>Engineering Services</u></b>				
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>
	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>0.0</b>
<b><u>Administration Department</u></b>				
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>
	<b>0.2</b>	<b>0.4</b>	<b>0.4</b>	<b>0.2</b>
	<b>9.4</b>	<b>9.2</b>	<b>8.3</b>	<b>-1.1</b>

## Temporary & Non-Benefit Employees (continued)

### Temporary Positions Detail:

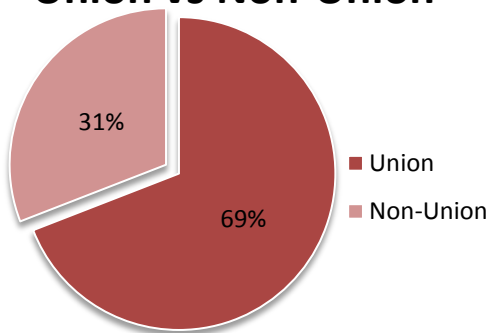
#### District Paid (Account 660131):

Org	Job Class	#EE	Hrs/Wk	# Wks	Hours	FTE's
A2	Engineering Tech - Temp	1	40	15	600	0.29
A5	Envir Educator-School Yr	1	40	26	1,040	0.50
	Temp Boat Launch Insp	5	14	20	1,400	0.67
	Temp Boat Launch Insp	1	12	25	300	0.14
	Temp Boat Launch Insp	1	16	40	640	0.31
	Temp Watershed Prot Spec	1	40	15	600	0.29
		10			4,580	2.20
A6	Constr Laborer - Temp	2	40	34	2,720	1.31
B3	Engineering Tech - Temp	1	40	10	400	0.19
C1	Facility Maint Tech -Temp	1	40	26	1,040	0.50
E2	Engineering Tech - Temp	4	40	13	2,080	1.00
G1	Temp IT Temp	1	40	8	320	0.15
L6	Lab Assistant II	1	20	52	1,040	0.50
L9	Engineering Tech - Temp	1	40	5	200	0.10
		22			12,380	5.95

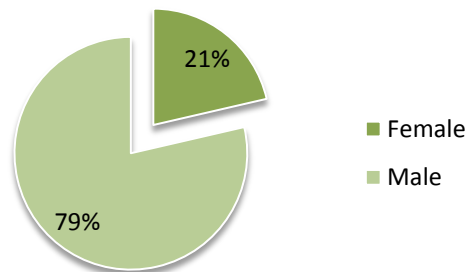
#### Agency Paid (Account 660136)

Org	Job Class	#EE	Hrs/Wk	# Wks	Hours	FTE's
A2	Temp Laborer	4	40	26	4,160	2.00
F1	Temp Clerical	1	40	12	480	0.23
I1	Temp Clerical	1	50	1	50	0.02
		6			4,690	2.25
<b>Total District &amp; Agency</b>		<b>28</b>			<b>17,070</b>	<b>8.21</b>

### Union vs Non-Union



### Gender



## Work Force Management

In 2016, 4 employees will reach age 65, the normal retirement age.

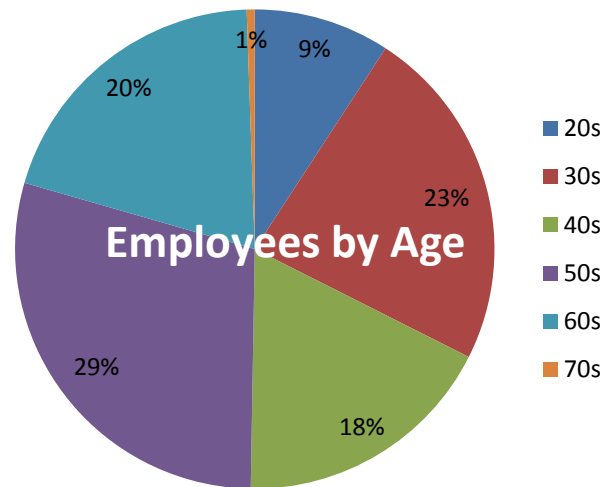
Management has been proactively managing the challenges of baby boomer retirements and the development of promoted personnel and unseasoned new hires.

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.

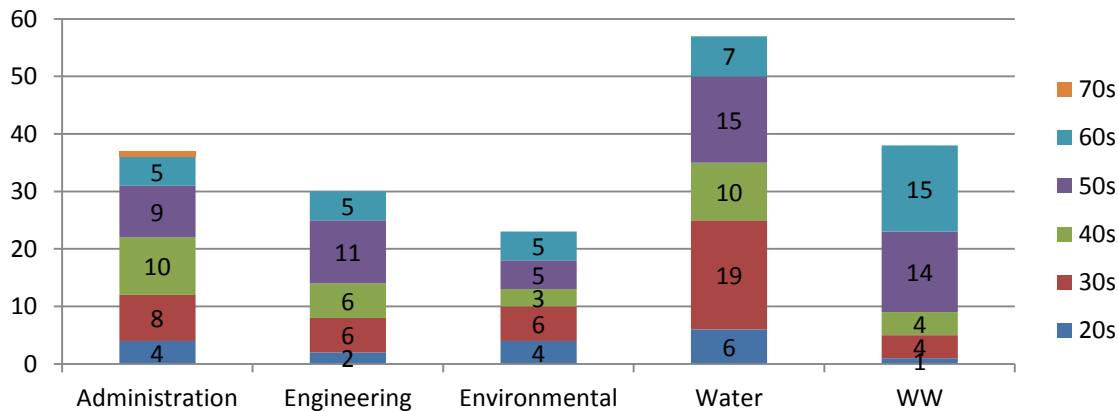
The Water Department's apprentice program has been satisfying its labor needs. It has served to launch capable Water System Operators into the more advanced Utility System and Water Treatment System Operator roles. The next challenge is preparing employees for the highest technical roles, and foreperson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

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

In 2015 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	18.0	9.4	17.4	19.2



## **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.

<b>Department</b>	<b>2015 Budget</b>	<b>2016 Budget</b>	<b>Change</b>
Water Services	\$3,000	\$3,000	\$0
Wastewater Services	8,450	8,850	400
Environmental Services	3,500	3,500	0
Engineering Services	12,000	6,100	-5,900
Administration	<u>27,500</u>	<u>27,500</u>	<u>0</u>
	<b>\$54,450</b>	<b>\$48,950</b>	<b>-\$5,500</b>

### **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.

<b>Department</b>	<b>2015 Budget</b>	<b>2016 Budget</b>	<b>Change</b>
Water Services	\$225,403	\$250,623	\$25,220
Wastewater Services	148,861	168,032	19,171
Environmental Services	35,639	48,344	12,705
Engineering Services	127,866	136,857	8,991
Administration	<u>195,838</u>	<u>214,408</u>	<u>18,570</u>
	<b>\$733,607</b>	<b>\$818,264</b>	<b>\$84,657</b>

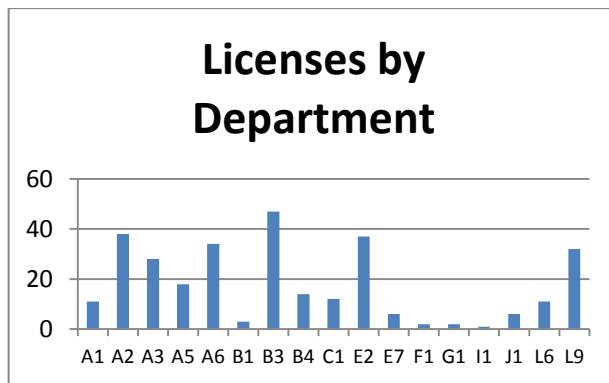
Operating Expense Budget	\$27,711,949
Percentage of O&M Budget	2.6%

## 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 131 employees who have received 302 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	7
BLDING OPER CERT 1	3
CCST I	4
ELECTRICIAN HELPER	3
GEOLOGIST	1
JOURNEY ELECTRICIAN	4
JOURNEYMAN PLUMBER	1
LAB ANALYSIS CER I	3
LAB ANALYSIS CER II	3
LAW ENF OFFICER CERT	1
MAINE PROF ENGINEER	10
MASTER ELECTRICIAN	8
ME BAR MEMBER	1
ME EMER MED SER(EMS)	1
ME ENGIN INTERN CERT	1
NOTARY PUBLIC	1
PLUMBER INSPECT LIC	5
PROJECT MANAGE CERT	2
PROPANE/GAS TECH	2
VEHICLE INSPECTOR	2
WASTEWATER COLL I	3
WASTEWATER COLL II	27
WASTEWATER COLL III	2
WASTEWATER COLL IV	12
WASTEWATER TREAT I	5
WASTEWATER TREAT II	13
WASTEWATER TREAT III	10
WASTEWATER TREAT IV	1
WASTEWATER TREAT V	10
WATER DIST I	10
WATER DIST II	32
WATER DIST III	8
WATER DIST IV	36
WATER TREAT/SYS I	19
WATER TREAT/SYS II	28
WATER TREAT/SYS III	2
WATER TREAT/SYS IV	21

<b>Grand Total</b>	<b>302</b>
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## 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.

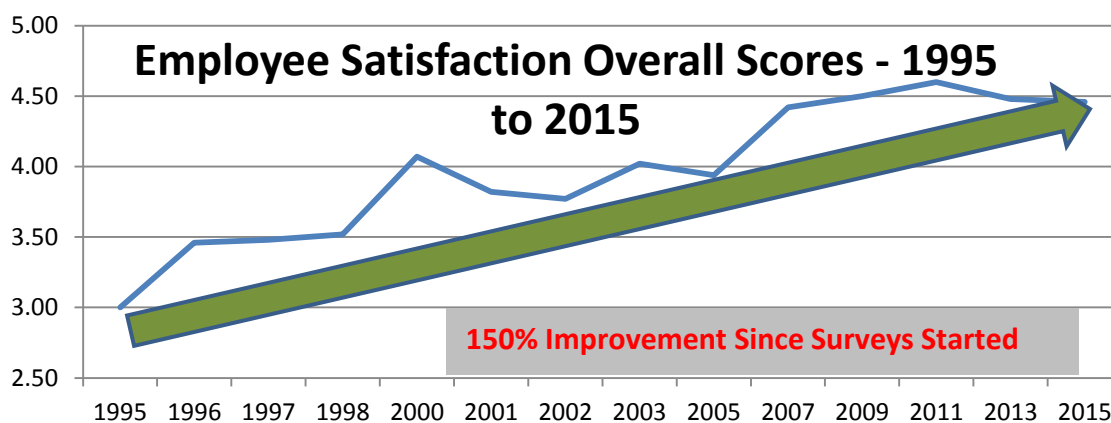
Management continues to utilize department monthly meetings to keep employees up to date re: Board activities and decisions, significant capital improvement projects, business challenges and changes, and updates of organizational practices and policies.

SharePoint will continue to evolve in 2016 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 2016 work plans to address these concern.



## Employee Recognition

### General Manager's Award

The 2014 General Manager's Award went to Mike Penny, Technical Maintenance Foreperson. Each year, the general manager selects one employee from the previous year's inspire award recipients to recognize with the General Manager Award.



### 2014 Inspire Awards

Mike Penny  
Technical Maintenance Foreperson

Mark Oliver  
Utility Specialist, Water Services

Walter Gillespie  
Financial Analyst

Jason Davenport  
Utility Specialist, Water Services

Bill Johnson  
Operations Foreperson-Wastewater

Donna Libby  
Safety & Training Consultant, ES

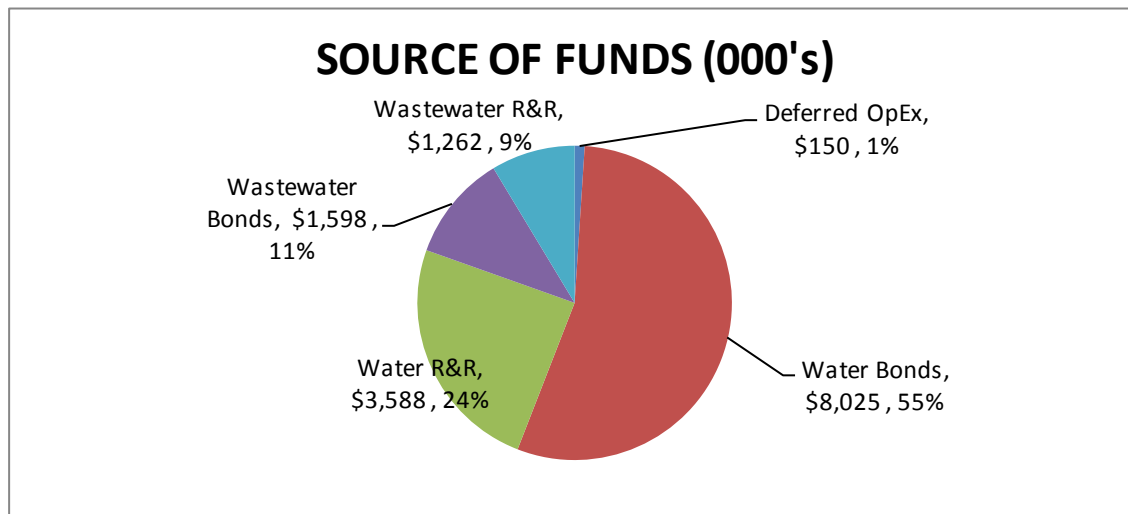
Ed Cash,  
Technical Maintenance Electrical / Mechanical

Steve Nappi  
Construction Technician, Water Services

Heather Smith  
Administrative Assistant Operations

## 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 2016 financing options (source of funds) are noted in the chart below. The funds will be used to fund \$11.6 million water projects and \$3 million wastewater projects.



## Annual Fund Operating Budget

The annual budget includes the impact of issuing \$9.6 million of debt and \$5.02 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 (20% to 22%), Cape Elizabeth Wastewater (15% to 17%), Portland Wastewater (19% to 23%) and Westbrook Wastewater (18% to 19%). 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.

	2015 Budget	2016 Budget	\$ Change
Debt Service Principal, Interest & Related Expense	\$6,140,039	\$7,098,926	\$958,887
Debt Service - Allocated	670,620	657,677	(12,943)
Debt Service - Funds	6,810,659	7,756,603	945,944
Annual Debt Service	6,810,659	7,756,603	945,944
Renewal & Replacement - Water - General	2,600,000	2,700,000	100,000
Renewal & Replacement - Wastewater	1,396,362	1,349,034	(47,328)
Renewal & Replacement - Multi-Fund Assets	490,000	590,000	100,000
Renewal & Replacement - Funds	4,486,362	4,639,034	152,672
Renewal and Replacement - Transportation	380,000	380,000	-
Annual Renewal and Replacement Contributions	4,866,362	5,019,034	152,672
Total Capital / Finance	11,677,021	12,775,637	1,098,616

## 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 2016 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 2016 budget assumes that 1% of the proposed 3.73% 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 A1 and A+, 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 was in June 2015. Moody's noted the District's strength was sizable, wealthy service area and sound debt service coverage supported by annual rate increases. 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. S&P noted the lack of autonomy in raising water rates because Maine Public Utilities Commission must approve all increases and the fact additional debt needs, absent future rate increases, may pressure the debt service coverage.

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
Water	17%	17%	20%	22%	25%	26%	26%
Wastewater							
Cape Elizabeth	14%	14%	15%	17%	22%	23%	22%
Cumberland	2%	2%	2%	2%	2%	2%	
Gorham	39%	36%	36%	36%	34%	33%	32%
Portland	19%	18%	19%	23%	25%	24%	23%
Westbrook	16%	16%	18%	19%	22%	22%	28%
Windham	47%	43%	41%	41%	40%	39%	38%

### Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020
Water	1.84	1.88	1.68	1.62	1.50	1.46	1.75
Wastewater							
Cape Elizabeth	1.66	1.49	1.45	1.37	1.13	1.19	1.25
Cumberland	2.68	2.81	2.89	2.83	3.20	3.50	3.85
Gorham	1.37	1.34	1.24	1.23	1.28	1.28	1.27
Portland	1.63	1.43	1.40	1.27	1.25	1.27	1.29
Westbrook	2.24	2.01	1.71	1.72	1.56	1.65	1.41
Windham	1.40	1.23	1.18	1.21	1.24	1.28	1.31

## **Water & Wastewater Funds Debt Service**

### **Long-Term Debt**

The District has \$4,991,687 and \$1,884,200 of principal and interest payments in 2016. Of the total, \$4,991,687 and \$1,884,200 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 \$228,927). 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 2016 principal and interest expense accrued are \$13,240 and \$7,128 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 2016 is estimated to be \$90,077.

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 2016 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
<b>Direct Charges:</b>						
Water General Assests	\$2,106,709	\$1,080,516	\$0	\$53,775	\$33,094	\$3,274,094
Water Capital Reserve	400,000	163,254	-	20,000	-	583,254
Subtotal - Water	2,506,709	1,243,770	-	73,775	33,094	3,857,349
Wastewater:						
Cape Elizabeth	146,250	42,030	-	3,921	7,047	199,248
Cumberland	6,250	969	-	-	361	7,581
Gorham	303,069	70,736	-	385	15,319	389,510
Portland	1,602,354	360,989	-	11,130	53,111	2,027,584
Westbrook	326,170	142,291	(13,240)	833	11,667	467,721
Windham	100,885	23,415	20,368	33	5,232	149,933
Subtotal - Wastewater	2,484,978	640,430	7,128	16,302	92,737	3,241,577
Total Direct Charges	4,991,687	1,884,200	7,128	90,077	125,831	7,098,926
<b>Meters Allocated:</b>						
Water	266,535	140,595	-	-	-	407,130
Wastewater:						
Cape Elizabeth	10,781	5,702	-	-	-	16,483
Cumberland	4,685	2,486	-	-	-	7,171
Gorham	7,936	4,211	-	-	-	12,147
Portland	82,116	43,715	-	-	-	125,831
Westbrook	20,053	10,667	-	-	-	30,720
Windham	335	179	-	-	-	514
Subtotal - Wastewater	125,906	66,960	-	-	-	192,866
Contracted Services:						
Falmouth	-	-	-	-	-	-
Scarborough	3,895	2,339	-	-	-	6,234
South Portland	32,414	19,033	-	-	-	51,447
Total Meters Allocated	428,750	228,927	-	-	-	657,677
Debt Service - Funds	5,420,437	2,113,127	7,128	90,077	125,831	7,756,603
Debt Service (Total)	5,420,437	2,113,127	7,128	90,077	125,831	7,756,603

## 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.

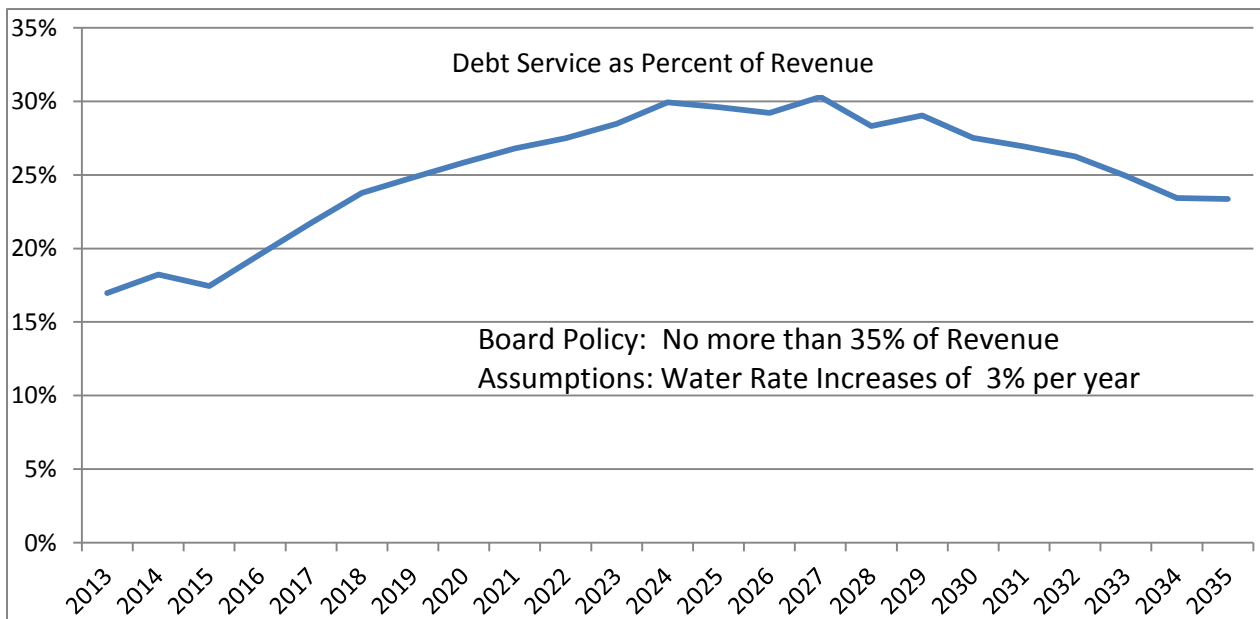
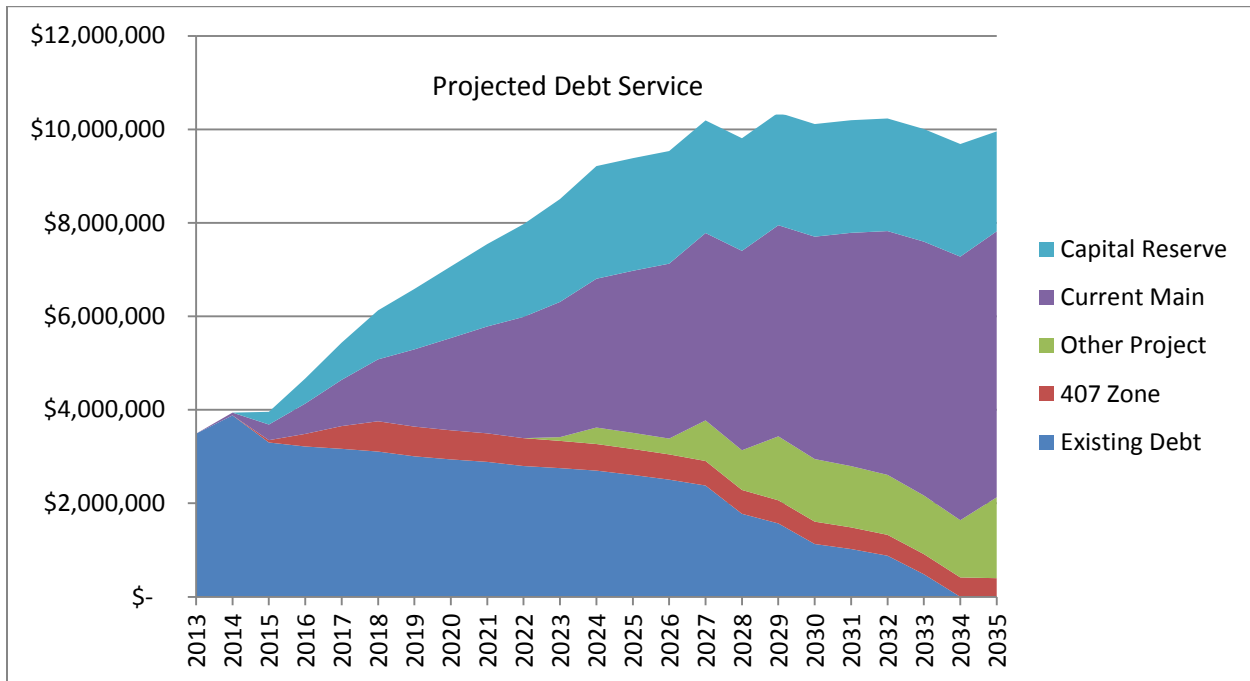
**Meter Debt Service** – Meters are an asset of the Water fund but are used to calculate both water and wastewater bills. The debt related to meters is allocated to each fund based on number and size of the meters in each municipality.

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

	<b>Fund</b>	<b>Meter</b>	<b>Total</b>
Water	\$3,857,349	\$407,130	\$4,264,479
Wastewater:			
Cape Elizabeth	199,248	16,483	215,731
Cumberland	7,581	7,171	14,752
Gorham	389,510	12,147	401,657
Portland	2,027,584	125,831	2,153,415
Westbrook	467,721	30,720	498,441
Windham	149,933	514	150,447
Contracted Services:			
Falmouth	-	-	-
Scarborough	-	6,234	6,234
South Portland	-	51,447	51,447
	7,098,926	657,677	7,756,603

## 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 increase 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 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. 2015 bond issues may appear in the proposed section if the target issue date is after the publication date of 2016 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2015 Balance	2016 Principal	Yr End 2016 Balance	2016 Interest Exp	MMBB/DEP Admin Fee	Issue Cost	PUC Docket#
Existing Debt Water General LTD												
10/27/2005	WTR05-02	General Assets	2025	3.0000% - 5.0000%	\$900,000	\$450,000	\$45,000	\$405,000	\$16,971			2005-488
10/26/2006	WTR06-01	General Assets	2026	3.0000% - 5.5500%	\$1,500,000	\$825,000	\$75,000	\$750,000	\$28,982			2006-510
09/01/2007	WTR07-03	General Assets	2027	4.2500% - 4.2500%	\$6,125,000	\$3,840,000	\$301,250	\$3,538,750	\$157,468			2006-732 & 2007-333
10/30/2008	WTR08-01	General Assets	2028	2.0750% - 5.5750%	\$1,500,000	\$975,000	\$75,000	\$900,000	\$47,128			2008-360
04/01/2009	WTR09-01	General Assets (407 Zone)	2028	1.0500% - 1.0500%	\$1,598,500	\$1,039,025	\$79,925	\$959,100	\$10,770	\$4,542		2008-360 AMENDED
08/28/2009	WTR09-04	General Assets (ARRA)	2029	0.0000% - 0.0000%	\$2,991,066	\$2,093,746	\$149,553	\$1,944,193	\$0	\$7,478		2009-128
08/28/2009	WTR09-05	General Assets (ARRA)	2029	0.0000% - 0.0000%	\$163,953	\$114,767	\$8,198	\$106,569	\$0	\$410		2009-128
05/27/2010	WTR10-02	General Assets (RZEDB)	2030	3.8140% - 5.7460%	\$400,000	\$375,000	\$25,000	\$350,000	\$10,522			2010-62
11/01/2010	WTR10-03	General Assets (DWSRF)	2030	1.0000% - 1.0000%	\$902,500	\$676,875	\$45,125	\$631,750	\$6,694	\$2,595		2010-62
10/27/2011	WTR11-01	General Assets	2031	0.5000% - 5.5000%	\$2,300,000	\$1,840,000	\$115,000	\$1,725,000	\$56,547			2011-266
05/01/2012	WTR12-03	Ozone UV Design & Forest Ave (DWSRF)	2032	1.0000% - 1.0000%	\$1,130,000	\$960,500	\$56,500	\$904,000	\$9,228	\$3,291		2011-266
10/25/2012	WTR12-01	General Assets	2032	1.4800% - 3.7060%	\$2,000,000	\$1,700,000	\$100,000	\$1,600,000	\$46,581			2012-357
05/01/2013	WTR13-01	Ozone-UV Construction Phase 1 (DWSRF)	2032	1.0000% - 1.0000%	\$2,850,000	\$2,550,000	\$150,000	\$2,400,000	\$25,250	\$8,775		2011-266
05/23/2013	WTR13-04	General Assets	2033	0.9200% - 3.7000%	\$1,428,000	\$1,285,200	\$71,400	\$1,213,800	\$33,356			2013-00167
11/04/2013	WTR13-06	Ozone-UV Construction Phase 2	2034	2.0000% - 4.2500%	\$8,000,000	\$7,600,000	\$400,000	\$7,200,000	\$268,467			2011-266
11/15/2013	WTR13-05	General Assets (DWSRF)	2033	1.0700% - 1.0700%	\$1,072,000	\$964,800	\$53,600	\$911,200	\$10,228	\$3,196		2013-00167
06/30/2014	WTR14-01	General Assets	2034	3.0000% - 3.5000%	\$2,541,000	\$2,410,000	\$130,000	\$2,280,000	\$64,136			2014-00093
05/14/2015	WTR15-01	General Assets (DWSRF) Scott Dyer Rd	2034	0.1500% - 0.1500%	\$459,000	\$436,375	\$22,658	\$413,717	\$643	\$1,166		2014-38
06/25/2015	WTR15-04	General Assets - Water Main Renewal	2035	3.0000% - 3.2500%	\$3,230,000	\$3,230,000	\$165,000	\$3,065,000	\$98,075			2015-00051
06/25/2015	WTR15-05	General Assets - Ozone Destruct	2035	3.0000% - 3.2500%	\$500,000	\$500,000	\$25,000	\$475,000	\$15,188			2015-00051
Total Existing Debt Water General LTD						\$33,866,288	\$2,093,209	\$31,773,079	\$906,233	\$31,452		
Proposed Water General LTD												
11/01/2015	WT_GA2015_10	Water General Assets/Gray Rd (DWSRF)	2035	3.0000% - 3.0000%	\$270,000	\$270,000	\$13,500	\$256,500	\$8,033	\$1,080		
06/01/2016	WT_407 Tank/Piping_5	407 Zone Tank and Piping	2036	5.0000% - 5.0000%	\$2,000,000	\$0	\$0	\$2,000,000	\$58,333		\$20,000	
06/01/2016	WT_Broadway Main_2	Water Main Renewal Broadway SP (DWSRF)	2036	3.0000% - 3.0000%	\$750,000	\$0	\$0	\$750,000	\$13,125	\$563	\$1,275	
06/01/2016	WT_Water General Asset_1	Water General Asset	2036	5.0000% - 5.0000%	\$3,250,000	\$0	\$0	\$3,250,000	\$94,792		\$32,500	
Total Proposed Debt Water General LTD						\$270,000	\$13,500	\$6,256,500	\$174,283	\$1,643	\$53,775	
Total Existing and Proposed Debt Water General LTD						\$34,136,288	\$2,106,709	\$38,029,579	\$1,079,069	\$33,094	\$53,775	
Existing Debt Water Capital Reserv												
06/30/2014	WTR14-02	Water Assets - Capital Reserve	2024	3.0000% - 3.0000%	\$2,000,000	\$1,800,000	\$200,000	\$1,600,000	\$45,920			2014-00093
06/25/2015	WTR15-03	Water Assets - Capital Reserve	2025	3.0000% - 3.0000%	\$2,000,000	\$2,000,000	\$200,000	\$1,800,000	\$59,000			2015-00051
Total Existing Debt Water Capital Reserve						\$3,800,000	\$400,000	\$3,400,000	\$104,920			
Proposed Water Capital Reserve												
06/01/2016	WT_GA2016 CR_2	Water General Assets - Capital Reserve	2026	5.0000% - 5.0000%	\$2,000,000	\$0	\$0	\$2,000,000	\$58,333		\$20,000	
Total Proposed Debt Water Capital Reserve						\$0	\$0	\$2,000,000	\$58,333	\$0	\$20,000	
Total Existing and Proposed Debt Water Capital Reserve						\$3,800,000	\$400,000	\$5,400,000	\$163,254	\$0	\$20,000	
Existing Debt Meters Allocated												
09/01/2007	WTR07-01	Meters	2027	4.2500% - 4.2500%	\$3,500,000	\$2,100,000	\$175,000	\$1,925,000	\$86,042			2006-403
09/01/2007	WTR07-02	Sub-meters	2027	4.2500% - 4.2500%	\$375,000	\$225,000	\$18,750	\$206,250	\$9,219			2006-403
05/28/2009	WTR09-02	Meters	2029	2.0800% - 5.5800%	\$4,519,800	\$3,163,860	\$225,990	\$2,937,870	\$128,542			2006-403
05/28/2009	WTR09-03	Sub-Meters	2029	0.0000% - 5.5800%	\$180,200	\$126,140	\$9,010	\$117,130	\$5,125			2006-403
Total Existing Debt Meters Allocated						\$5,615,000	\$428,750	\$5,186,250	\$228,927			
Total Existing and Proposed Water Debt						\$43,551,288	\$2,935,459	\$48,615,829	\$1,472,697	\$33,094	\$73,775	

Wastewater Funds Long-Term Debt

Long-Term Debt Detail:

The tables below contain a list of all outstanding debt for Cape Elizabeth, Cumberland, 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.

2015 bond issues may appear in the proposed section if the target issue date is after the publication date of the 2016 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2015 Balance	2016 Principal	Yr End 2016 Balance	Accrued 2016 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	\$61,750	\$4,750	\$57,000	\$2,985	\$0	\$2,985	\$7,047	
12/16/2011	WW11-01	CESO Treatment / Spurwink (SRF)	2031	1.0000% - 1.0000%	\$2,430,000	\$1,944,000	\$121,500	\$1,822,500	\$19,238	\$0	\$19,238		
10/25/2012	WW12-03	Cape Ottawa Rd CSO Studies / Treatment	2032	1.4800% - 3.7060%	\$160,000	\$136,000	\$8,000	\$128,000	\$3,726	\$0	\$3,726		
05/28/2015	WW15-02	Wastewater CE Garden Ln	2035	0.7200% - 3.8900%	\$240,000	\$240,000	\$12,000	\$228,000	\$6,695	\$0	\$6,695		
Total Existing Debt Cape Elizabeth						\$2,381,750	\$146,250	\$2,235,500	\$32,644	\$0	\$32,644	\$7,047	
Proposed Cape Elizabeth													
04/01/2016	WW_Cape TP/PS Misc_3	Cape TP/PS Misc. Projects	2036	5.0000% - 5.0000%	\$172,500	\$0	\$0	\$172,500	\$6,469	\$0	\$6,469		\$421
11/01/2016	WW_Cape2016_1	Peables Cove FM & Maiden Cove PS	2036	5.0000% - 5.0000%	\$350,000	\$0	\$0	\$350,000	\$2,917	\$0	\$2,917		\$3,500
Total Proposed Debt Cape Elizabeth						\$0	\$0	\$522,500	\$9,385	\$0	\$9,385		\$3,921
Total Existing and Proposed Debt Cape Elizabeth						\$2,381,750	\$146,250	\$2,758,000	\$42,030	\$0	\$42,030	\$7,047	\$3,921
Existing Debt Cumberland													
12/22/2006	WW06-01	Cumberland -Tuttle Pump Station (SRF)	2026	1.4200% - 1.4200%	\$125,000	\$68,750	\$6,250	\$62,500	\$969	\$0	\$969	\$361	
Total Existing Debt Cumberland						\$68,750	\$6,250	\$62,500	\$969	\$0	\$969	\$361	
Existing Debt Gorham													
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$78,120	\$26,806	\$3,906	\$22,900	\$328	\$0	\$328	\$64	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$73,185	\$29,120	\$3,659	\$25,461	\$337	\$0	\$337	\$144	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS upgrades (SRF)	2025	1.6300% - 1.6300%	\$252,000	\$126,000	\$12,600	\$113,400	\$2,037	\$0	\$2,037	\$733	
07/02/2007	WW07-01	GR Portion -Treatment Water Plant & Scum (SRF)	2017	1.0000% - 1.0000%	\$146,000	\$29,200	\$14,600	\$14,600	\$219	\$0	\$219	\$745	
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades	2028	2.0000% - 5.5000%	\$50,400	\$32,760	\$2,520	\$30,240	\$1,386	\$0	\$1,386		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens	2029	2.0750% - 5.5750%	\$474,672	\$332,270	\$23,734	\$308,537	\$16,689	\$0	\$16,689		
01/15/2009	WW09-01	Little Falls Conveyance (SRF)	2028	1.4400% - 1.4400%	\$4,258,208	\$2,795,793	\$215,061	\$2,580,732	\$39,485	\$0	\$39,485	\$12,766	
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$253,475	\$164,759	\$12,674	\$152,085	\$1,616	\$0	\$1,616	\$716	
05/28/2009	WW09-04	Little Falls Conveyance	2029	2.0800% - 5.5800%	\$233,954	\$163,768	\$11,698	\$152,070	\$6,654	\$0	\$6,654		
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$52,360	\$39,270	\$2,618	\$36,652	\$388	\$0	\$388	\$151	
Total Existing Debt Gorham						\$3,739,746	\$303,069	\$3,436,677	\$69,138	\$0	\$69,138	\$15,319	
Proposed Gorham													
11/01/2016	WW_Sludge DeWater_1	West WWTF Sludge Dewatering SRF	2036	3.0000% - 3.0000%	\$308,000	\$0	\$0	\$308,000	\$1,540	\$0	\$1,540		\$385
Total Proposed Debt Gorham						\$0	\$0	\$308,000	\$1,540	\$0	\$1,540		\$385
Total Existing and Proposed Debt Gorham						\$3,739,746	\$303,069	\$3,744,677	\$70,678	\$0	\$70,678	\$15,319	\$385



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, 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.

2015 bond issues may appear in the proposed section if the target issue date is after the publication date of the 2016 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue	Yr End 2015	2016	Yr End 2016	Accrued 2016 Interest & Fees			MMBB/DEP	Issue Cost
					Principal	Balance	Principal	Balance	Interest Exp	DEP Mgt Fee	Interest Expense	Admin Fee	
Existing Debt Portland													
05/23/1996	WW96-01	Portland CSO Upgrades	2016	5.9010% - 5.9010%	\$900,000	\$45,000	\$45,000	\$0	\$1,137	\$0	\$1,137		
10/30/1997	WW97-01	Peaks Torrington Point Upgrades	2017	5.3800% - 5.3800%	\$1,100,000	\$110,000	\$55,000	\$55,000	\$4,469	\$0	\$4,469		
10/26/2001	WW01-01	Peaks Ryefield / Seashore Upgrades (SRF)	2021	2.1000% - 2.1000%	\$2,785,000	\$835,500	\$139,250	\$696,250	\$17,058	\$0	\$17,058	\$2,352	
11/01/2001	WW01-02	EETreatment Clarifiers/Screens/Grit Upgrades (SRF)	2021	2.1000% - 2.1000%	\$1,250,000	\$375,000	\$62,500	\$312,500	\$7,656	\$0	\$7,656	\$1,056	
04/01/2003	WW03-01	Refund Issue EETF Clarifiers/Screens/Grit (SRF)	2020	0.0000% - 4.0590%	\$1,615,500	\$444,011	\$89,750	\$354,261	\$4,325	\$0	\$4,325	\$1,430	
04/01/2003	WW03-02	Portland Treatment Odor Control (SRF)	2022	0.0000% - 4.2030%	\$5,200,000	\$1,784,302	\$260,000	\$1,524,301	\$21,843	\$0	\$21,843	\$4,289	
11/13/2003	WW03-12	EETF Dewatering/Clarifiers/Screens/Grit (SRF)	2023	0.0000% - 4.4930%	\$1,230,000	\$483,850	\$61,500	\$422,350	\$4,464	\$0	\$4,464	\$2,425	
11/13/2003	WW03-13	EE Treatment Primary Sedimentation & Odor (SRF)	2023	0.0000% - 4.4930%	\$2,000,000	\$798,721	\$100,000	\$698,721	\$10,451	\$0	\$10,451	\$3,943	
12/03/2004	WW04-01	EE Treatment Odor Control (SRF)	2024	1.3300% - 1.3300%	\$375,000	\$168,750	\$18,750	\$150,000	\$2,182	\$0	\$2,182	\$735	
12/03/2004	WW04-02	EE Treatment Dewatering (SRF)	2024	1.3300% - 1.3300%	\$1,740,000	\$783,000	\$87,000	\$696,000	\$10,125	\$0	\$10,125	\$3,409	
12/01/2005	WW05-01	EE Treatment Hypochlorite Upgrade (SRF)	2025	1.6300% - 1.6300%	\$1,900,000	\$950,000	\$95,000	\$855,000	\$15,356	\$0	\$15,356	\$5,524	
04/01/2009	WW09-03	Portland India Pump Station Upgrade (SRF)	2028	1.4700% - 1.4700%	\$5,700,000	\$3,652,922	\$280,994	\$3,371,928	\$53,010	\$0	\$53,010	\$16,735	
11/01/2010	WW10-03	Portland Northeast & Pump Station Upgrades (SRF)	2030	1.0000% - 1.0000%	\$752,200	\$564,150	\$37,610	\$526,540	\$5,579	\$0	\$5,579	\$2,163	
10/27/2011	WW11-02	Portland Pump Station Upgrades	2031	0.5000% - 5.5000%	\$400,000	\$320,000	\$20,000	\$300,000	\$9,834	\$0	\$9,834		
11/04/2013	WW13-02	Peaks Island Sewer Extension	2033	3.0000% - 4.0000%	\$3,000,000	\$2,700,000	\$150,000	\$2,550,000	\$91,750	\$0	\$91,750		
Total Existing Debt Portland						\$14,015,207	\$1,502,354	\$12,512,852	\$259,239	\$0	\$259,239	\$44,061	
Proposed Portland													
12/01/2015	WW_EETF Aeration SRF_2	EETF Aeration System Upgrade (SRF)	2035	3.0000% - 3.0000%	\$2,000,000	\$2,000,000	\$100,000	\$1,900,000	\$59,750	\$0	\$59,750	\$8,000	
06/01/2016	WW_Fore_River_SRF_6	Fore River PS Upgrades (SRF)	2036	3.0000% - 3.0000%	\$1,400,000	\$0	\$0	\$1,400,000	\$24,500	\$0	\$24,500	\$1,050	\$2,380
12/01/2016	WW_EETF Aeration SRF p2_1	ETF Aearation Syst Upgrades Phase2 SRF	2036	3.0000% - 3.0000%	\$7,000,000	\$0	\$0	\$7,000,000	\$17,500	\$0	\$17,500		\$8,750
Total Proposed Debt Portland						\$2,000,000	\$100,000	\$10,300,000	\$101,750	\$0	\$101,750	\$9,050	\$11,130
Total Existing and Proposed Debt Portland						\$16,015,207	\$1,602,354	\$22,812,852	\$360,989	\$0	\$360,989	\$53,111	\$11,130

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.

2015 Bond issues may appear in the proposed section if the target issue date is after the publication date of the 2016 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue	Yr End 2015	2016	Yr End 2016	Accrued 2016 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	\$97,522	\$14,210	\$83,311	\$1,194	\$0	\$1,194	\$234	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$266,254	\$105,943	\$13,313	\$92,630	\$1,225	\$0	\$1,225	\$525	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS upgrades (SRF)	2025	1.6300% - 1.6300%	\$1,316,800	\$658,400	\$65,840	\$592,560	\$10,642	\$0	\$10,642	\$3,829	
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades	2028	2.0000% - 5.5000%	\$183,360	\$119,184	\$9,168	\$110,016	\$5,253	\$0	\$5,253		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens	2029	2.0750% - 5.5750%	\$2,384,641	\$1,669,249	\$119,232	\$1,550,017	\$83,843	\$0	\$83,843		
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$974,925	\$633,701	\$48,746	\$584,955	\$6,215	\$0	\$6,215	\$2,754	
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$113,220	\$84,915	\$5,661	\$79,254	\$840	\$0	\$840	\$326	
Total Existing Debt Westbrook						\$3,368,913	\$276,170	\$3,092,743	\$109,211	\$0	\$109,211	\$7,667	
Proposed Westbrook													
11/01/2015	WW_CS0 DES_CONST_3	CSO Design & Construction (SRF)	2035	3.0000% - 3.0000%	\$1,000,000	\$1,000,000	\$50,000	\$950,000	\$29,750	\$0	\$29,750	\$4,000	
11/01/2016	WW_Sludge DeWater_1	West WWTF Sludge Dewatering SRF	2036	3.0000% - 3.0000%	\$666,000	\$0	\$0	\$666,000	\$3,330	\$0	\$3,330		\$833
Total Proposed Debt Westbrook						\$1,000,000	\$50,000	\$1,616,000	\$33,080	\$0	\$33,080	\$4,000.00	\$833
Total Existing and Proposed Debt Westbrook						\$4,368,913	\$326,170	\$4,708,743	\$142,291	\$0	\$142,291	\$11,667	\$833

Wastewater Funds Long-Term Debt (continued):

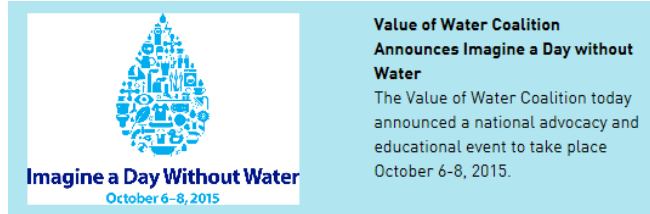
Long-Term Debt Detail: (continued)

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.

2015 Bond issues may appear in the proposed section if the target issue date is after the publication date of the 2016 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue	Yr End 2015	2016	Yr End 2016	Accrued 2016 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	\$3,319	\$484	\$2,835	\$41	\$0	\$41	\$8	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$9,061	\$3,605	\$453	\$3,152	\$42	\$0	\$42	\$18	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS upgrades (SRF)	2025	1.6300% - 1.6300%	\$31,200	\$15,600	\$1,560	\$14,040	\$252	\$0	\$252	\$91	
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades	2028	2.0000% - 5.5000%	\$6,240	\$4,056	\$312	\$3,744	\$172	\$0	\$172		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens	2029	2.0750% - 5.5750%	\$40,687	\$28,481	\$2,034	\$26,447	\$1,431	\$0	\$1,431		
01/15/2009	WW09-01	Little Falls Conveyance (SRF)	2028	1.4400% - 1.4400%	\$1,681,792	\$1,104,207	\$84,939	\$1,019,268	\$15,595	\$0	\$15,595	\$5,042	
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$21,600	\$14,040	\$1,080	\$12,960	\$138	\$0	\$138	\$61	
05/28/2009	WW09-04	Little Falls Conveyance	2029	2.0800% - 5.5800%	\$196,046	\$137,232	\$9,802	\$127,430	\$5,575	\$0	\$5,575		
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$4,420	\$3,315	\$221	\$3,094	\$33	\$0	\$33	\$13	
Total Existing Debt Windham						\$1,313,855	\$100,885	\$1,212,970	\$23,285	\$0	\$23,285	\$5,232	
Proposed Windham													
11/01/2016	WW_Sludge DeWater_1	West WWTF Sludge Dewatering SRF	2036	3.0000% - 3.0000%	\$26,000	\$0	\$0	\$26,000	\$130	\$0	\$130		\$33
Total Proposed Debt Windham						\$0	\$0	\$26,000	\$130	\$0	\$130		\$33
Total Existing and Proposed Debt Windham						\$1,313,855	\$100,885	\$1,238,970	\$23,415	\$0	\$23,415	\$5,232	\$33

## Imagine a Day Without Water



### MAINE VOICES (*Portland Press Herald*, October 7, 2015)

#### Like roads and bridges, water infrastructure is critical to daily life.

‘Imagine a Day Without Water’ is a national project about systems that carry the lifeblood of civilization.

#### ABOUT THE AUTHORS

**Ronald Miller** is general manager of the Portland Water District and **Guy Cote** is president of the water agency’s Board.

When headlines blare “Infrastructure Falling Apart,” readers may picture potholes in the road and rusted out bridges that need to be replaced. This is the infrastructure you can easily see. But as pointed out in a recent *The Associated Press* article published September 27 in the *Portland Press Herald*, “Maine has miles of aging water mains awaiting replacement.” there is another infrastructure system under our feet that, in many places, is much older than the roads we drive on.

Underground, out of sight and out of mind, is a massive network of water systems that function all day, every day, to bring us clean, safe drinking water and take away used water needing treatment. According to *National Geographic*, the U.S. has 1.2 million miles of water mains—that’s 26 miles of mains for every mile of interstate highway. Many of those pipes were installed in the 1800s or early 1900s, and many of these systems were built for cities of a century ago, not modern metropolises.

Nearly 1,000 miles of Portland Water District (PWD) pipe transports water from Sebago Lake to serve over 200,000 people in the Greater Portland area. The system is a complex network of pipes made of various materials and is comprised of water mains that range

from 1 inch to 60 inches in size. Over the past 10 years roughly 30 miles of pipe have been replaced and another 50 to 60 miles of pipe will be replaced in the next 10 years.

Water outages due to a water main break are typically short in duration and impact a small area. But a major system failure would be catastrophic. Imagine a day without water. Water is critical to ensure public health. You couldn’t brush your teeth, flush the toilet or bathe. Residential use is just part of the picture. Commercial use is a huge component of water consumption as well. Everything from breweries and restaurants, to manufacturing plants need water too. Our medical facilities need water to ensure patient safety. Water keeps our economy flowing.

Public safety is another major consideration. There are nearly 400,000 house fires in the U.S. each year, and water flowing from a hydrant or sprinkler system is our best defense. Public safety and fire protection were primary concerns prompting the initial development of our country’s water systems. We need our underground pipes to be ready for this life-saving service.

Water consumers know clean water is essential, but they also need an awareness of how water agencies, like PWD, are addressing the issues of an aging system. Roughly 20 percent of Greater Portland’s water distribution system is over 80 years old, which is why PWD continues to increase investments in water infrastructure. Our Capital Improvement Plan funds our water main replacement program. Investments have risen from \$2.5 million in 2011 to an anticipated \$7.0 million in 2016.

Over the last 5 years, PWD has invested \$22 million in water main replacements while striving to keep water rates affordable. These efforts have been successful. Water main breaks have continued to decline over the past 30 years and fall well below national averages.

PWD believes it is important to share information with customers about the ongoing investments in aging water infrastructure. That is why during October 6-8, we will join several organizations in a nationwide educational effort called “Imagine a Day Without Water.” Dozens of other water agencies, cities and more are joining the effort, because even though water is absolutely essential to everything we do, it too often is forgotten. Again: out of sight, out of mind.

We are fortunate to have access to safe, reliable, and affordable water in our communities. Our infrastructure is invisible to most of us, but keeping it operating well into the future is an ongoing effort. Water might fall from the sky and flow through our rivers, but it is far from free. Processing it, treating it, and transporting it to and from your house through an upgraded system costs millions of dollars.

The good news is—we can be ahead of the curve. Deferred maintenance, waiting until a water main breaks or a system breaks down, is the most expensive approach possible. In contrast, by continually maintaining the system, using smarter technology that spots weaknesses in the system before breaks, and planning incremental upgrades of our aging pipes, we save money in the long run. PWD’s mission will always include first class water quality and reliable service at the lowest rates possible.

## 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	\$ 2,678,400
10% of Revenue Requirement	\$ 2,078,065

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.

<b>SIA Program</b>	<b>Main to be replaced (ft)</b>	<b>Cost per foot</b>	<b>Miles of pipe</b>	<b>Program Cost</b>
<b>A (Cast Iron pipe &gt;100 years old)</b>	559,680	\$225	106 miles	\$126 million
<b>B (Cast Iron pipe 75-100 years old)</b>	443,520	\$225	84 miles	\$100 million
<b>C (Galvanized Iron pipe)</b>	59,136	\$200	11 miles	\$12 million
<b>D (2 ¼" diameter Cast Iron pipe)</b>	84,480	\$200	16 miles	\$17 million
<b>Totals</b>			<b>217 miles</b>	<b>\$255 million</b>

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 2016 budget assumes 1% of the proposed 3.73% water rate adjustment be dedicated to the capital reserve. In 2014 and 2015 1% of the rate adjustments were dedicated to the reserve.

	<b>2014 Actual</b>	<b>2015 Budget</b>	<b>2016 Budget</b>
Revenue	144,061	349,156	599,462
Expense	24,382	282,325	583,254
Annual Charge	119,679	66,831	16,208
Carry Forward	-	114,549	199,276
	119,679	181,380	215,484

## 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.

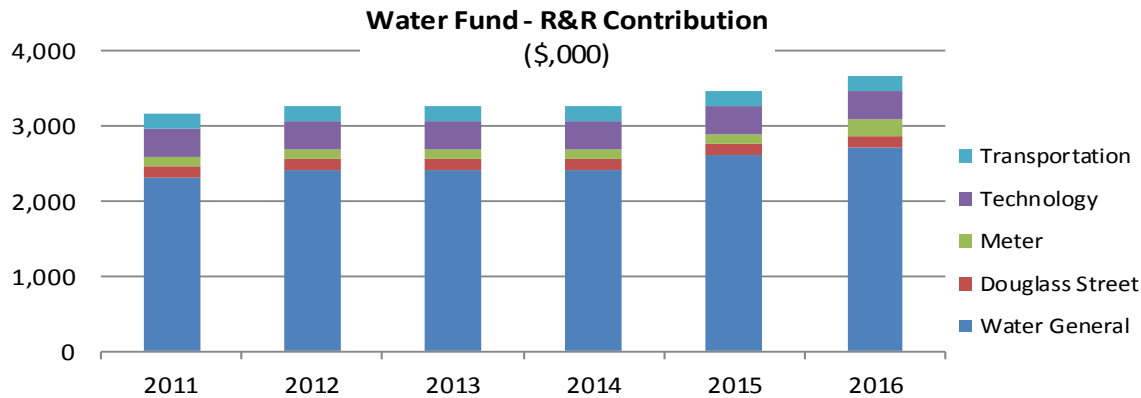
**Transportation** – These assets are used by all District funds. The charge for the R&R funding is part of the hourly rate of each vehicle (an internal line item).

### 2016 Contributions:

	Fund	Douglass St	Meters	Technology	Combined*	Total
Water	\$2,700,000	\$95,715	\$157,248	\$110,340	\$363,303	\$3,063,303
Wastewater:						
Cape Elizabeth	80,000	4,755	4,248	7,380	16,383	96,383
Cumberland	19,628	2,265	2,136	3,900	8,301	27,929
Gorham	83,815	3,660	3,600	5,780	13,040	96,855
Portland	725,000	33,630	41,736	57,480	132,846	857,846
Westbrook	407,904	7,620	9,912	13,300	30,832	438,736
Windham	32,687	915	192	1,820	2,927	35,614
Contracted Services:						
Falmouth	-	-	-	-	-	-
Scarborough	-	15	2,616	-	2,631	2,631
South Portland	-	1,425	18,312	-	19,737	19,737
R&R - Funds	4,049,034	150,000	240,000	200,000	590,000	4,639,034
R&R - Transportation						380,000
R&R - Total						5,019,034
*Combined = Douglass St + Meters + Technology						

## Water Fund - Renewal & Replacement Fund

A total of \$3,670,000 is contributed to the renewal and replacement fund in 2016. 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 \$3,690,000, 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	Transportation	Technology	Total
Balance 12/31/12	2,652,015	272,288	271,555	188,761	189,283	3,573,903
Contribution - 2013	2,400,000	150,000	140,000	380,000	200,000	3,270,000
Expenditure	<u>-1,514,711</u>	<u>-129,900</u>	<u>-117,368</u>	<u>-318,490</u>	<u>-69,184</u>	<u>-2,149,653</u>
Balance 12/31/13	3,537,304	292,388	294,187	250,271	320,099	4,694,250
Contribution - 2014	2,400,000	150,000	140,000	380,000	200,000	3,270,000
Expenditure	<u>-3,112,097</u>	<u>-69,449</u>	<u>-347,582</u>	<u>-303,195</u>	<u>-42,892</u>	<u>-3,875,215</u>
Balance 12/31/14	\$2,825,207	\$372,939	\$86,605	\$327,076	\$477,207	\$4,089,035
Contribution - 2015	2,600,000	150,000	140,000	380,000	200,000	3,470,000
Expenditure (Est'd)	<u>-1,471,900</u>	<u>-390,000</u>	<u>-250,000</u>	<u>-275,000</u>	<u>-265,000</u>	<u>-2,651,900</u>
Balance 12/31/15 (Est'd)	\$3,953,307	\$132,939	-\$23,395	\$432,076	\$412,207	\$4,907,135
Contribution - 2016	\$2,700,000	\$150,000	\$240,000	\$380,000	\$200,000	\$3,670,000
Expenditure (Est'd)	<u>-\$2,325,000</u>	<u>-\$340,000</u>	<u>-\$250,000</u>	<u>-\$400,000</u>	<u>-\$298,000</u>	<u>-\$3,613,000</u>
Balance 12/31/16 (Est'd)	\$4,328,307	-\$57,061	-\$33,395	\$412,076	\$314,207	\$4,964,135
Target Renewal and Replacement (1% of Gross Fixed Asset Cost)						\$2,833,730



## 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 2014, operating surpluses in Gorham, Portland, Westbrook and Windham were transferred to each fund's R&R fund. In addition, the proceeds from that sale easement were placed in Portland's R&R fund.

In 2016, R&R contributions stayed the same in Cape Elizabeth, Cumberland, Westbrook and Windham. Gorham had a decrease (from \$127,947 to \$83,815) as did Westbrook. As a group, the Wastewater funds decreased their R&R contributions by \$47,328 (3.4%).

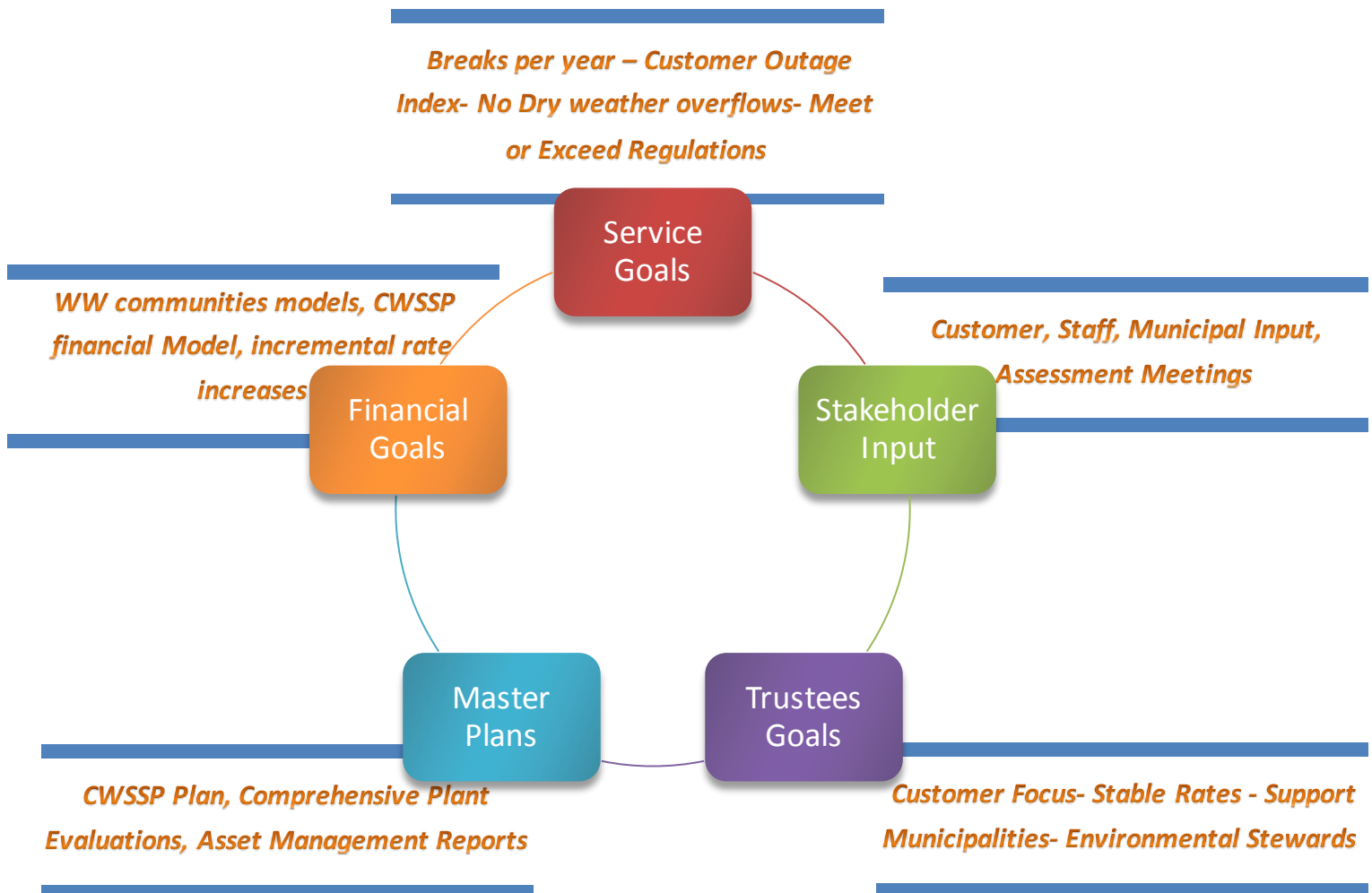
Recently, the State Revolving Loan program amended their program to grant principal forgiveness to organization that implemented good asset management practices including allocating at least 2% of the annual budget into an R&R fund. The District received \$270,000 and \$47,800 principal forgiveness on the Cape Elizabeth 2011 \$2,700,000 and Portland 2010 \$800,000 bonds.

The estimated 2016 expenditures from the R&R fund are based on the 2016 Capital Improvements Budget as outlined in the Capital Expenditure section.

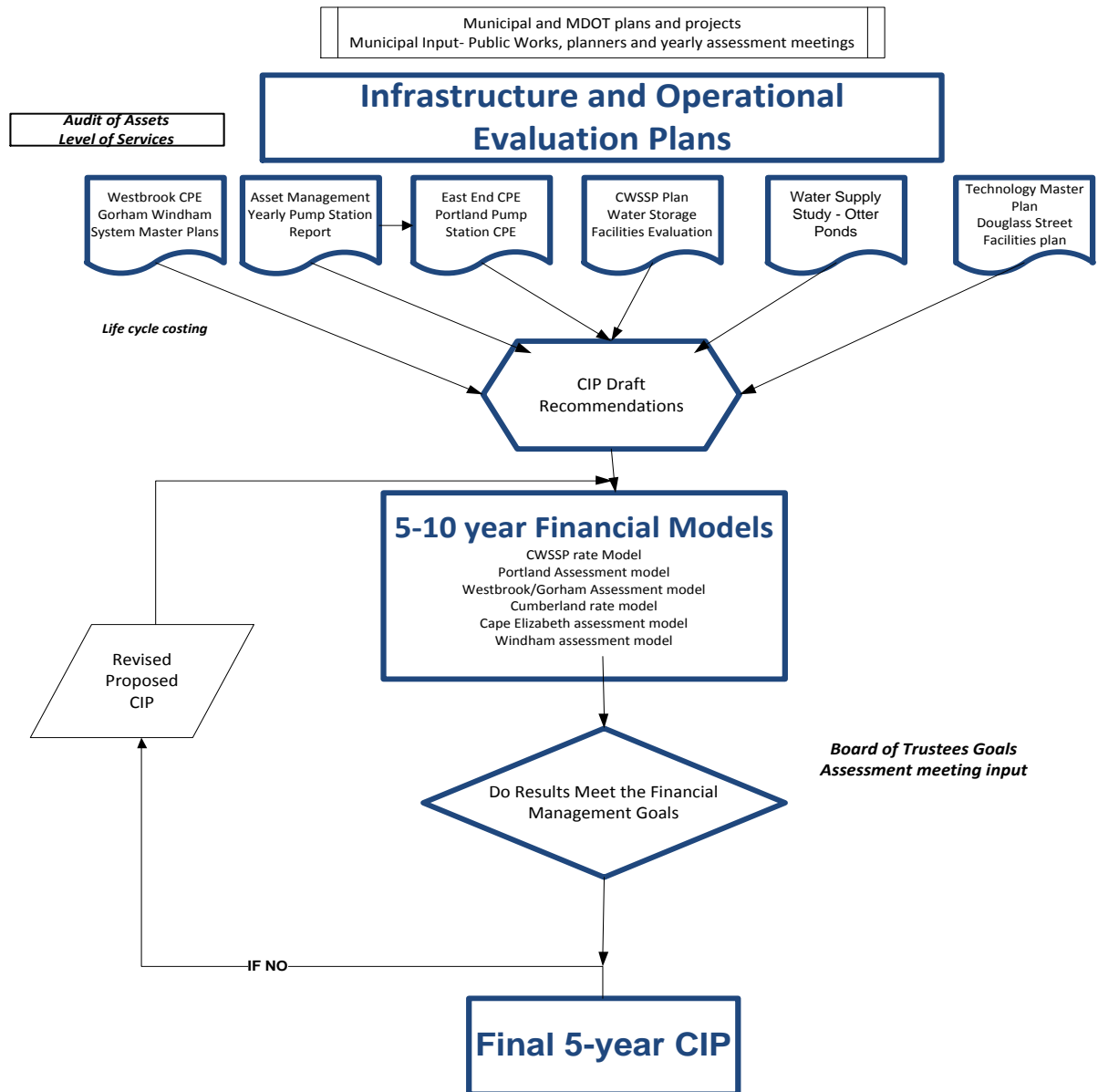
	----- Wastewater Funds -----					
	CAPE ELIZABETH	CUMBERLAND	GORHAM	PORTLAND	WESTBROOK	WINDHAM
Balance 12/31/13	143,755	284,075	518,731	2,551,065	1,320,231	188,220
Contribution - 2014	80,000	19,628	67,313	728,196	405,798	32,015
Operating Surplus Transfer	-	-	73,406	410,702	97,929	27,435
<u>Expenditure</u>	<u>(21,923)</u>	<u>(41,500)</u>	<u>(63,499)</u>	<u>(876,674)</u>	<u>(70,032)</u>	<u>(8,292)</u>
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	-	-	-	-	-	-
<u>Expenditure (Est'd)</u>	<u>(125,916)</u>	<u>(146,078)</u>	<u>(164,555)</u>	<u>(1,731,321)</u>	<u>(508,981)</u>	<u>(70,095)</u>
Balance 12/31/15 Estimated	155,916	135,753	559,343	1,810,164	1,652,849	201,970
Contribution - 2016	80,000	19,628	83,815	725,000	407,904	32,687
Operating Surplus Transfer	-	-	-	-	-	-
<u>Expenditure (Est'd)</u>	<u>(185,000)</u>	<u>(115,000)</u>	<u>(109,096)</u>	<u>(740,000)</u>	<u>(269,292)</u>	<u>(51,612)</u>
Balance 12/31/16 Estimated	50,916	40,381	534,062	1,795,164	1,791,461	183,045
Target Renew al & Replacement (3% of gross fixed asset cost)	<u>\$469,521</u>	<u>\$232,560</u>	<u>\$526,259</u>	<u>\$2,989,444</u>	<u>\$605,804</u>	<u>\$88,922</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 Improvement Program Process



## Infrastructure and Operational Evaluation Plans

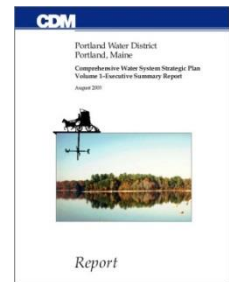
The water and wastewater industry is an infrastructure oriented industry. Approximately 95% of the District's total assets are infrastructure assets and capital financing costs related to those assets are 30% of the annual budget. As the chart on the previous page indicates, a number of studies have 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

CIP Program	2011	2012	2013	2014	2015	*2016
<b>Program- 43</b>	\$1.5	\$2.0	\$2.5	\$3.0	\$3.5	<b>\$4.0</b>
Capital Reserve Program Funding Addition				\$2.0	\$2.0	<b>\$2.0</b>
<b>Program -111</b>	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0	<b>\$1.0</b>
<b>Total</b>	<b>\$2.5</b>	<b>\$3.0</b>	<b>\$3.5</b>	<b>\$6.0</b>	<b>\$6.5</b>	<b>\$7.0</b>

\*Bonded \$2.0 million each year starting in 2014 under the Capital Reserve Funding mechanism

\*Proposed \$7,000,000 in 2016 for Water Main Replacement- Estimated to replace 5 to 6 miles of old water mains.

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.

A hydraulic analysis of the combined system, final design of the proposed pump station and land acquisition for a new storage facility to replace the Windham Center Tank were proposed for 2015 (CIP 307) and will be completed late in 2016. In the 2015 plan, construction of the new 407 zone pump station was funded but has since been delayed to 2016. In 2016 Project 507 is proposed for \$2,000,000 to install 24" transmission main to Sebago Lake Road from Dyer Road along with closing a loop on Huston Road. This work will provide significant fire flow and pressure improvements to this end of the town of Gorham.

## 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 in 2018(CIP #18 SLWTF intakes).

### New UV unit on line March of 2014



## 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.

## Wastewater Funds (continued)

### 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 remaining system will be televised in the next two years.

### 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.

The Garden Circle Pump Station is regularly flooded during extreme high tides. Following the completion of design in 2013, the pump station was replaced in 2015 by a submersible station that will not be prone to damage from flooding. This will improve the reliability of the station and reduce the cost to service this station.

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).

### 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



## Wastewater Funds (continued)

### Gorham/Westbrook/Windham – Westbrook Regional Treatment Plant Evaluations

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),.

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.

## 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 in 2016 (#2527).

### 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) are proposed for 2016.

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:

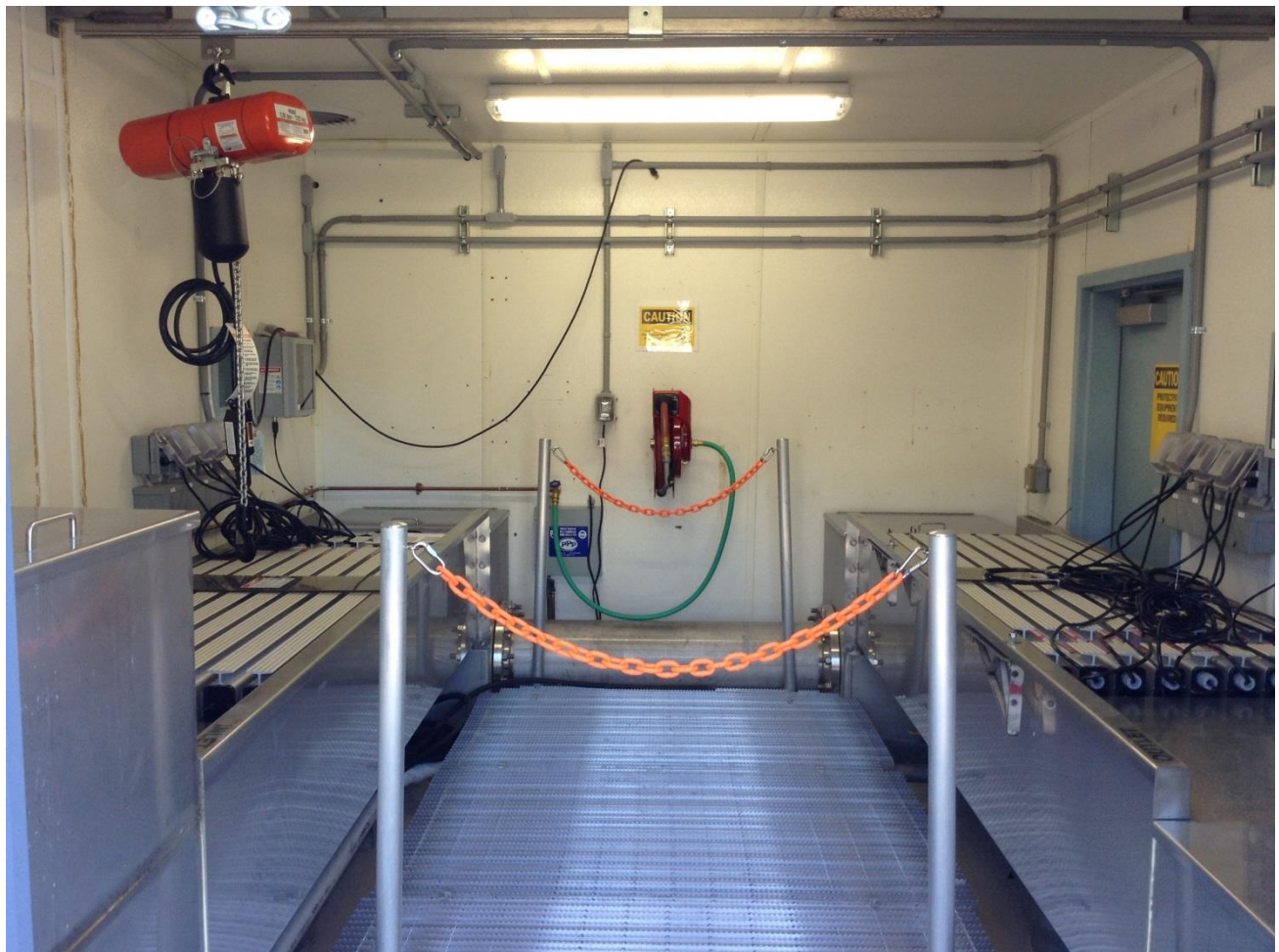
- Replacement of process gates for the aeration system and chlorine contact tanks
- Installation of a second CSO rated screen in the headworks
- Installation of a polymer system to manage high flows
- Replacement of the influent screenings wash press
- Addition of enclosed sludge thickening equipment 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 aeration basin upgrade will significantly increase the plant's instantaneous oxygen transfer capability to enable it to meet today's peak demand loading to the facility. Maintaining aerobic conditions will promote good settling and will likely reduce odors generated 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.

**New UV units on line April of 2015**



## 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 dollar 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 dollar sewer expansion on Peaks Island. The project was managed, constructed, and financed by the District. The project was completed in 2014.

**Peaks Island Sewer Extension Project:** New Great Pond Pump Station – Went online in January 2014





## 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 in 2016 (#2553).

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 contemplating the replacement of the joint use Mill Creek Pump Station and Force Main. The project is now expected to begin in 2015 or 2016.

## 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 EEWTF'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

<b>Program</b>	<b>Program Approval 11/23/15</b>	<b>Special Approval</b>
SCADA & Technology	\$338,000	
Vehicle and Equipment Replacement	\$412,000	
Wastewater Collection Systems and Pumping	\$1,423,000	
Wastewater Treatment Facilities	\$1,547,000	
Water Distribution System Upgrades	\$10,285,000	
Water Facilities Program	\$565,000	
Water Supply - Sebago Lake and Steep Falls	\$25,000	
<b>Program Totals</b>	<b>\$14,595,000</b>	
<b>Combined Program Total</b>		<b>\$14,595,000</b>

**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 2016-2020 Capital Improvement Plan is hereby adopted and the General Manager is authorized to solicit bids or proposals for the year 2016 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 2016 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 2016

Program	Subprogram #	Budget
<b>SCADA &amp; Technology</b>		
SCADA /Process Control - Wastewater	110	\$108,000
Technology Upgrade and Replacement	50	\$230,000
	Program Total	\$338,000
<b>Vehicle &amp; Equipment Replacement</b>		
Lab Equipment Replacement	95	\$12,000
Vehicle and Equipment Replacement	326	\$400,000
	Program Total	\$412,000
<b>Wastewater Collection Systems &amp; Pumping</b>		
Cape Eliz. Pump Stations - R&R	52	\$125,000
Cape Eliz. Pump Stations - Capital	407	\$350,000
Cumberland WW Pump Stations - R&R	41	\$115,000
Gorham WW Pump Stations - R&R	60	\$90,000
Portland CSO Mitigation	131	\$200,000
Portland WW Pump Stations -R&R	70	\$265,000
Westbrook CSO Abatement	29	\$218,000
Westbrook WW Systems R&R	411	\$10,000
Windham - Little Falls WW system R&R	180	\$50,000
	Program Total	\$1,423,000
<b>Wastewater Treatment Facilities</b>		
Cape Eliz. WWTF - R&R	424	\$30,000
Cape Eliz. WWTF – Capital	418	\$30,000
East End WWTF - R&R	409	\$155,000
Peaks Island R&R	423	\$120,000
Wastewater Asset Condition Evaluations	421	\$150,000
Westbrook/Gorham /Windham WWTF Capital	167	\$1,000,000
Westbrook/Gorham /Windham WWTF R&R	416	\$62,000
	Program Total	\$1,547,000

## Program Summary for 2016

Program	Subprogram #	Budget
<b><u>Water Distribution System Upgrades</u></b>		
Meter Replacement and Leak Detection	63	\$250,000
Gorham/Windham 407 Zone Improvements	307	\$2,000,000
Water Distribution 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	\$560,000
Water System Redundancy (Looping) and Upsizing Dev.	408	\$50,000
	Program Total	\$10,285,000
<b><u>Water Facilities Program</u></b>		
Facilities Improvements	68	\$340,000
Water Facilities Renewal and Replacement	122	\$200,000
Water Storage Facility Maintenance & Upgrade	203	\$25,000
	Program Total	\$565,000
<b><u>Water Supply - Sebago Lake and Steep Falls</u></b>		
Water System Security	46	\$25,000
	Program Total	\$25,000
	<b>CIP Total</b>	<b>\$14,595,000</b>

## Fund Summary for 2016

Subprogram		Subprogram #	Budget	Manager
<b>Division</b>	<b>10 Allocation</b>			
Facilities Improvements		68	\$340,000	Paradis, Roger
Meter Replacement and Leak Detection		63	\$350,000	Wallace, Jim
Technology Upgrade and Replacement		50	\$230,000	Davis, Chad
Vehicle and Equipment Replacement		326	\$400,000	Paradis, Roger
	Division 10	Total	<b>\$1,220,000</b>	
<b>Division</b>	<b>20 Water - General</b>			
Gorham/Windham 407 Zone Improvements		307	\$2,000,000	Johnson, Gordon
SCADA /Process Control - Water		110	\$108,000	Richard, Emile
Water Distribution Valve Replacement		53	\$200,000	Wallace, Jim
Water Facilities Renewal and Replacement		122	\$200,000	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	\$560,000	Wallace, Jim
Water Storage Facility Maintenance & Upgrade		203	\$25,000	Johnson, Gordon
Water System Redundancy (Looping) and Upsizing dev		408	\$50,000	Johnson, Gordon
Water System Security		46	\$25,000	Wallace, Jim
	Division 20	Total	<b>\$10,393,000</b>	
<b>Division</b>	<b>50 Wastewater - General</b>			
Wastewater Asset Condition Evaluation		421	\$150,000	Firmin, Scott
Lab Equipment Replacement		95	\$12,000	Hunt, Paul
	Division 51	Total	<b>\$162,000</b>	
<b>Division</b>	<b>51 Wastewater - Cape Elizabeth</b>			
Cape Eliz. Pump Stations - R&R		52	\$125,000	Poulin, Charlene
Cape Eliz. Pump Stations - Capital		407	\$350,000	Rodriguez, Paul
Cape Eliz. WWTF - Capital		418	\$30,000	Firmin, Scott
Cape Eliz. WWTF - R&R		424	\$30,000	Waterman, Robert
	Division 51	Total	<b>\$535,000</b>	
<b>Division</b>	<b>53 Wastewater - Cumberland</b>			
Cumberland WW Pump Stations - R&R		41	\$115,000	Poulin, Charlene
	Division 53	Total	<b>\$115,000</b>	

## Fund Summary for 2016

Subprogram	Subprogram #	Budget	Manager
<b>Division 55 Wastewater - Windham Little Falls</b>			
Windham - Little Falls WW System R&R	180	\$50,000	Poulin, Charlene
	Division 55 Total	<b>\$50,000</b>	
<b>Division 57 Wastewater - Portland</b>			
East End WWTF - R&R	409	\$155,000	Sloan, Steve
Portland CSO Mitigation	131	\$200,000	Poulin, Charlene
Portland WW Pump Stations - R&R	70	\$265,000	Poulin, Charlene
	Division 57 Total	<b>\$620,000</b>	
<b>Division 61 Wastewater - Gorham Village</b>			
Gorham WW Pump Stations - R&R	60	\$90,000	Poulin, Charlene
	Division 61 Total	<b>\$90,000</b>	
<b>Division 62 Wastewater - Westbrook</b>			
Westbrook CSO Abatement	29	\$218,000	Poulin, Charlene
Westbrook WW Systems R&R	411	\$10,000	Poulin, Charlene
	Division 62 Total	<b>\$228,000</b>	
<b>Division 64 Wastewater - Joint Westbrook</b>			
Westbrook/Gorham/Windham WWTF Capital	167	\$1,000,000	Rodriguez, Paul
Westbrook/Gorham/Windham WWTF R&R	416	\$62,000	Waterman, Robert
	Division 64 Total	<b>\$1,062,000</b>	
<b>Division 66 Wastewater - Peaks</b>			
Peaks Island R&R	423	\$120,000	Waterman, Robert
	Division 66 Total	<b>\$120,000</b>	
<b>Total of All Divisions:</b>		<b>\$14,595,000</b>	

## Financing Summary for 2016

In 2016, capital projects will be funded through bonds, bond anticipation notes and renewal and replacement (R and R) reserve withdrawals as described in the Capital Finance section.

Funding Source	Subprogram	Subprogram #	Budget
<b>Bonds - Wastewater</b>			
	Cape Eliz. Pump Stations – Capital	407	\$350,000
	Westbrook Gorham Windham Regional WWTF - Capital	167	\$1,000,000
	Total for: Bonds - WW		\$1,350,000
<b>Bonds - Water</b>			
	Water Main Replacement - Capital	43	\$6,000,000
	Gorham/Windham 407 Zone Improvements	307	\$2,000,000
	Total for: Bonds - Water		\$8,000,000
<b>Deferred Operating Expense</b>			
	Wastewater Asset Condition Evaluation	421	\$150,000
	Water Storage Facility Maintenance & Upgrade	203	\$25,000
	Cape Eliz. WWTF – Capital	418	\$30,000
	Total for: Deferred OpEx		\$205,000
<b>R&amp;R - Wastewater</b>			
	Cape Eliz. Pump Stations - R&R	52	\$125,000
	Cape Eliz. WWTF - R&R	424	\$30,000
	Cumberland WW Pump Stations - R&R	41	\$115,000
	East End WWTF - R&R	409	\$155,000
	Gorham WW Pump Stations - R&R	60	\$90,000
	Peaks Island R&R	423	\$120,000
	Portland CSO Mitigation	131	\$200,000
	Portland WW Pump Stations - R&R	70	\$265,000
	Westbrook CSO Abatement	29	\$218,000
	Westbrook WW Systems R&R	411	\$10,000
	Westbrook/Gorham /Windham WWTF R&R	416	\$62,000
	Windham - Little Falls WW System R&R	180	\$50,000
	Total for: R&R - Wastewater		\$1,440,000

## Financing Summary for 2016

In 2016, 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.

<b>Funding Source</b>	<b>Subprogram</b>	<b>Subprogram #</b>	<b>Budget</b>
<b>R&amp;R - Water</b>			
	Facilities Improvements	68	\$340,000
	Lab Equipment Replacement	95	\$12,000
	Meter Replacement and Leak Detection	63	\$350,000
	SCADA /Process Control - Water	110	\$108,000
	Technology Upgrade and Replacement	50	\$230,000
	Vehicle and Equipment Replacement	326	\$400,000
	Water Distribution Valve Replacement	53	\$200,000
	Water Facilities Renewal and Replacement	122	\$200,000
	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	\$560,000
	Water System Redundancy (Looping) and Upsizing dev	408	\$50,000
	Water System Security	46	\$25,000
	Total for: R&R - Water		\$3,600,000
	<b>Grand Total for: 2016</b>		<b>\$14,595,000</b>



## Priority Summary Report for 2016

### Non-Routine

Priority Reason	Subprogram	Subprogram #	Budget
<b><u>Regulatory mandate</u></b>			
These projects are required by law or permits.			
	Portland CSO Mitigation	131	\$200,000
	Westbrook CSO Abatement	29	<b>\$218,000</b>
	Total for: Regulatory mandate		\$418,000
<b><u>Security of facilities</u></b>			
These are projects to address water and wastewater system security vulnerabilities.			
	Water System Security	46	\$25,000
	Total for: Security of facilities		\$25,000
<b><u>Upgrade obsolete facility</u></b>			
These projects have been identified through comprehensive facility evaluations (CWSSP and CPE) as necessary to extend the life of existing facilities.			
	Cape Eliz. Pump Stations – Capital	407	<b>\$350,000</b>
	Cape Eliz. WWTF – Capital	418	\$30,000
	Facilities Improvements	68	\$340,000
	Gorham/Windham 407 Zone Improvements	307	<b>\$2,000,000</b>
	SCADA /Process Control - Water	110	\$10,000
	Wastewater Asset Condition Evaluation	421	\$150,000
	Westbrook Gorham Windham Regional WWTF Capital	167	<b>\$1,000,000</b>
	Total for: Upgrade Obsolete facility		\$3,978,000

Items in RED are planned to be financed from bond issues in 2016 or Future Years. Other projects are to be financed through the renewal and replacement reserves.

## Priority Summary Report for 2016

### Routine

Priority Reason	Subprogram	Subprogram #	Budget
<b>Routine replacement</b>			
Projects that require year-to-year funding to routinely replace or renew			
Cape Elizabeth Pump Stations - R&R		52	\$125,000
Cape Elizabeth WWTF - R&R		424	\$30,000
Cumberland WW Pump Stations - R&R		41	\$115,000
East End WWTF - R&R		409	\$155,000
Gorham WW Pump Stations - R&R		60	\$90,000
Lab Equipment Replacement		95	\$12,000
Meter Replacement and Leak Detection		63	\$250,000
Peaks Island R&R		423	\$120,000
Portland WW Pump Stations - R&R		70	\$265,000
Technology Upgrade and Replacement		50	\$230,000
Vehicle and Equipment Replacement		326	\$400,000
Water Distribution Valve Replacement		53	\$200,000
Water Facilities Renewal and Replacement		122	\$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	\$560,000
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	\$62,000
Windham - Little Falls WW system R&R		180	\$50,000
Total for: Routine replacement			\$10,174,000
<b>Grand Total</b>			<b>\$14,595,000</b>

Items in RED are planned to be financed from bond issues in 2016 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
<b><u>Division 20 Water - General</u></b>			
Watershed Security and Safety – Rt 35/237 Redesign	425	\$1,000,000	Johnson, Gordon
Watershed Land Acquisition	1	\$434,000	Twaddel, Norman
<b><u>Division 51 Wastewater - Cape Elizabeth</u></b>			
Cape Elizabeth Pump Stations - Capital	407	\$200,000	Firmin, Scott
<b><u>Division 57 Wastewater - Portland</u></b>			
East End WWTF Capital Upgrade	21	\$350,000	Sloan, Steve
<b>Total of All Divisions:</b>		<b>\$1,984,000</b>	

Pending Unscheduled Work are projects that may occur in 2016.

**Subprogram # 1** - Watershed land acquisitions occur if a buyer approaches the District to sell their property located in our watershed area.

**Subprogram # 21** – As part of the strategy to address regulatory changes regarding effluent blending as well as upgrades at Chlorine Contact Tank

**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.

**Subprogram #425** – Pending Maine Department of Transportation cost estimate to relocate a road near the intake.

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 2016 Budget.

### CIP Operating Fund Summary Impact

Project/Item	Project #	Total Budget	2016	2017	2018	2019	2020	Expense Type
<b>10 - Allocation</b>								
<b>Facilities Improvements</b>	<b>68</b>	<b>\$340,000</b>						
Facilities upgrades RR		\$20,000						
Douglass St 3rd Floor Exterior Wall Replacement		\$250,000						
Facilities Upgrades RR - Paving Visitors parking lot		\$70,000						
<b>Meter Replacement and Leak Detection</b>	<b>63</b>	<b>\$200,000</b>						
<b>Technology Upgrade and Replacement</b>	<b>50</b>	<b>\$230,000</b>						
Hansen System Replacement Evaluation		\$100,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	Operating Expense
Dark Fiber connection at Sebago Lake/ Douglass St.		\$65,000	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	Data Lines rental
Technology Upgrades		\$65,000						
<b>Vehicle and Equipment Replacement</b>	<b>326</b>	<b>\$400,000</b>						
		<b>\$1,170,000</b>						
<b>20 - Water - General</b>								
<b>Gorham/Windham 407 Zone Improvements</b>	<b>307</b>	<b>\$2,000,000</b>	\$78,333	\$197,083	\$192,083	\$187,083	\$182,083	Debt Service
<b>SCADA /Process Control - Water</b>	<b>110</b>	<b>\$108,000</b>						
Process Control and SCADA Upgrades		\$50,000						
SLWTF SCADA Server Renewal Program		\$18,000						
SCADA System PLC Program Management Sys. - Phase 2		\$40,000	\$1,670	\$1,670	\$1,670	\$1,670	\$1,670	Software Licensing
<b>Water Distribution Valve Replacement</b>	<b>53</b>	<b>\$250,000</b>						
<b>Water Facilities Renewal and Replacement</b>	<b>122</b>	<b>\$200,000</b>						
Steep Falls Pump Interior Piping Replacement		\$15,000						
Standby Generator Cooling Tower Core Repair		\$45,000						
Raw water, finish water Pump VFD Replacements		\$40,000						
SLWTF Lobby Skylight Repair and Window Replacement		\$50,000						
Water Facilities Renewal and Replacement		\$50,000						
<b>Water Hydrants Replacement</b>	<b>65</b>	<b>\$200,000</b>						
<b>Water Main Renewal - Seasonal Mains</b>	<b>56</b>	<b>\$25,000</b>						
<b>Water Main Replacement - Capital</b>	<b>43</b>	<b>\$6,000,000</b>	\$186,250	\$485,260	\$454,521	\$435,271	\$416,021	Debt Service
<b>Water Main Replacement - R&amp;R</b>	<b>111</b>	<b>\$1,000,000</b>						
<b>Water Services - Renew Domestic &amp; Fire</b>	<b>61</b>	<b>\$560,000</b>						
<b>Water Storage Facility Maintenance &amp; Upgrade</b>	<b>203</b>	<b>\$25,000</b>						
<b>Water System Redundancy (Looping) and Upsizing dev</b>	<b>408</b>	<b>\$50,000</b>						
<b>Water System Security</b>	<b>46</b>	<b>\$25,000</b>	\$250	\$250	\$250	\$250	\$250	Contract Services
		<b>\$10,443,000</b>						

<b>50 - Wastewater - General</b>									
Lab Equipment Replacement	95	\$12,000							
RO/DI Lab Water System (East End Lab)			\$12,000						
Wastewater Asset Condition Evaluations	421	\$150,000							
Evaluation of WWTF HVAC Systems			\$150,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	Operating Expense
			\$162,000						
<b>51 - Wastewater - Cape Elizabeth</b>									
Cape Elizabeth Pump Stations - Capital	407	\$350,000							
Peabbles Cove Force Main replacement			\$150,000	\$2,417	\$14,854	\$14,479	\$14,104	\$13,729	Debt Service
Maiden Cove Upgrade to Submersible PS			\$200,000	\$4,000	\$20,000	\$19,500	\$19,000	\$18,500	
Cape Elizabeth WWTF - Capital	418	\$30,000							
UV Disinfection Evaluation			\$15,000	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	Operating Expense
Clarifier and Aeration System Condition Assessment			\$15,000	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	Operating Expense
Cape Elizabeth WWTF - R&R	424	\$30,000							
LED Lighting			\$10,000	(\$300)	(\$300)	(\$300)	(\$300)	(\$300)	Purchase Power
Cape Eliz. WWTF - R&R			\$20,000						
Cape Elizabeth Pump Stations - R&R	52	\$125,000							
Stonegate North Pump Station Upgrades			\$65,000						
Broad Cove South Pump Station Upgrades			\$50,000						
Cape Elizabeth Pump Stations- R&R			\$10,000						
			\$535,000						
<b>53 - Wastewater - Cumberland</b>									
Cumberland WW Pump Stations - R&R	41	\$115,000							
Evaluation of Steel Pump Station Structures			\$20,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	Operating Expense
Longmeadow Pump Replacement and Telemetry Upgrade			\$75,000						
Cumberland WW Pump Stations - R&R			\$20,000						
			\$115,000						
<b>55- Wastewater - Windham Little Falls</b>									
Windham - Little Falls WW System R&R	180	\$50,000							
Windham R&R			\$20,000						
Androscoggin Pump Station Upgrades			\$30,000						
			\$50,000						

<b>57 - Wastewater - Portland</b>									
<b>East End WWTF - R&amp;R</b>	409	<b>\$155,000</b>							
Secondary Clarifier Condition Assessment			\$35,000	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	Operating Expense
EEWWTF - R&R			\$75,000						
Security Improvements			\$25,000	\$250	\$250	\$250	\$250	\$250	Contract Services
Return Activated Sludge System Evaluation			\$20,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	Operating Expense
<b>Portland CSO Mitigation</b>	131	<b>\$200,000</b>							
CSO Flow Meter Upgrade (Software, Hardware)			\$200,000						
<b>Portland WW Pump Stations - R&amp;R</b>	70	<b>\$265,000</b>							
Northeast Pump 1 Replacement			\$100,000						
Fore River Pump Station Roof Replacement			\$115,000						
Portland WW Pump Stations - R&R			\$50,000						
			<b>\$620,000</b>						
<b>61 - Wastewater - Gorham Village</b>									
<b>Gorham WW Pump Stations - R&amp;R</b>	60	<b>\$90,000</b>							
Manhole Raising on Main Street Gorham			\$20,000						
Gorham WW Pump Stations - R&R			\$10,000						
Canterbury Pines PS Upgrade			\$60,000						
			<b>\$90,000</b>						
<b>62 - Wastewater - Westbrook</b>									
<b>Westbrook CSO Abatement</b>	29	<b>\$218,000</b>							
Flow Meter Replacement			\$50,000						
Design of upgrades to Dana Court PS			\$168,000	\$16,800	\$16,800	\$16,800	\$16,800	\$16,800	
<b>Westbrook WW Systems R&amp;R</b>	411	<b>\$10,000</b>							
			<b>\$228,000</b>						
<b>64 - Wastewater - Joint Westbrook</b>									
<b>Westbrook Gorham Windham Regional WWTF - Capital</b>	167	<b>\$1,000,000</b>							
WGWRWWTF Sludge Dewatering Upgrades			\$1,000,000	\$6,250	\$83,750	\$82,175	\$80,601	\$79,026	Debt Service
				(\$50,000)	(\$50,000)	(\$50,000)	(\$50,000)	(\$50,000)	Biosolids Diposal
<b>Westbrook/Gorham /Windham WWTF R&amp;R</b>	416	<b>\$62,000</b>							
LED Lighting Upgrade			\$12,000	(\$300)	(\$300)	(\$300)	(\$300)	(\$300)	Purchase Power
Routine Renewal and Replacement			\$50,000						
			<b>\$1,062,000</b>						
<b>66 - Wastewater - Peaks</b>									
<b>Peaks Island R&amp;R</b>	423	<b>\$120,000</b>							
Influent Screening System Replacement			\$100,000						
Peaks Island RR			\$20,000						
			<b>\$120,000</b>						
<b>Total 2016 CIP</b>			<b>\$14,595,000</b>						

## Capital Expenditures

### Capital Improvement Program - Five Year Plan

Subprogram	#	2016	2017	2018	2019	2020	Five -Year Total
<b>Division: 10 Allocation</b>							
Facilities Improvements	68	\$340,000	\$325,000	\$300,000	\$200,000	\$220,000	\$1,385,000
Meter Replacement and Leak Detection	63	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,250,000
Technology Upgrade and Replacement	50	\$230,000	\$200,000	\$1,200,000	\$1,200,000	\$200,000	\$3,030,000
Vehicle and Equipment Replacement	326	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$2,000,000
<b>Division 10 Total</b>		<b>\$1,220,000</b>	<b>\$1,175,000</b>	<b>\$2,150,000</b>	<b>\$2,050,000</b>	<b>\$1,070,000</b>	<b>\$7,665,000</b>
<b>Division: 20 Water - General</b>							
Gorham/Windham 407 Zone Improvements	307	\$2,000,000	\$2,500,000		\$1,000,000		\$5,500,000
SCADA /Process Control -Water	110	\$108,000	\$120,000	\$50,000	\$55,000	\$50,000	\$383,000
SLWTF Intakes - Replace Mechanical Screens	18			\$1,100,000			\$1,100,000
Water Distribution Valve Replacement	53	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
Water Facilities Renewal and Replacement	122	\$200,000	\$125,000	\$50,000	\$50,000	\$50,000	\$475,000
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	\$560,000	\$600,000	\$600,000	\$600,000	\$600,000	\$2,960,000
Water Storage Facility Maintenance & Upgrade	203	\$25,000	\$425,000	\$25,000	\$100,000	\$50,000	\$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
<b>Division 20 Total</b>		<b>\$10,393,000</b>	<b>\$11,270,000</b>	<b>\$9,325,000</b>	<b>\$9,305,000</b>	<b>\$8,250,000</b>	<b>\$48,543,000</b>
<b>Division: 50 Wastewater - General</b>							
Lab Equipment Replacement	95	\$12,000					\$12,000
SCADA /Process Control - Wastewater	177			\$125,150	\$127,000		\$252,150
Wastewater Asset Condition Evaluations	421	\$150,000					\$150,000
<b>Division 50 Total</b>		<b>\$162,000</b>		<b>\$125,150</b>	<b>\$127,000</b>		<b>\$414,150</b>



## Capital Expenditures

### Capital Improvement Program - Five Year Plan

Subprogram	#	2016	2017	2018	2019	2020	Five -Year Total
<b>Division: 51 Wastewater - Cape Elizabeth</b>							
Cape Eliz. Pump Stations -Capital	407	\$350,000	\$620,000				\$970,000
Cape Eliz. WWTF - Capital	418	\$30,000	\$775,000	\$465,000			\$1,270,000
Cape Eliz. WWTF - R&R	424	\$30,000	\$70,000	\$50,000	\$70,000		\$220,000
Cape Elizathbeth Pump Stations- R&R	52	\$125,000	\$30,000	\$30,000	\$30,000	\$30,000	\$245,000
SCADA /Process Control - Wastewater	177		\$225,400				\$225,400
<b>Division 51 Total</b>		<b>\$535,000</b>	<b>\$1,720,400</b>	<b>\$545,000</b>	<b>\$100,000</b>	<b>\$30,000</b>	<b>\$2,930,400</b>
<b>Division: 53 Wastewater - Cumberland</b>							
Cumberland WW Pump Stations - R&R	41	\$115,000	\$20,000	\$20,000	\$20,000	\$20,000	\$195,000
<b>Division 53 Total</b>		<b>\$115,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$195,000</b>
<b>Division: 55 Wastewater - Windham Little Falls</b>							
Windham- Little Falls WW system R&R	180	\$50,000	\$20,000	\$20,000	\$20,000	\$25,000	\$135,000
<b>Division 55 Total</b>		<b>\$50,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$25,000</b>	<b>\$135,000</b>
<b>Division: 57 Wastewater - Portland</b>							
East End WWTF - R&R	409	\$155,000	\$525,000	\$400,000	\$675,000	\$400,000	\$2,155,000
East End WWTF Capital Upgrade	21		\$25,000	\$600,000			\$625,000
Portland CSO Mitigation	131	\$200,000	\$200,000				\$400,000
Portland WW Pump Station Capital Upgrade	420		\$2,500,000		\$535,000		\$3,035,000
Portland WW Pump Stations -R&R	70	\$265,000	\$50,000	\$100,000	\$50,000	\$200,000	\$665,000
SCADA /Process Control - Wastewater	177		\$50,000	\$50,000	\$50,000	\$50,000	\$200,000
<b>Division 57 Total</b>		<b>\$620,000</b>	<b>\$3,350,000</b>	<b>\$1,150,000</b>	<b>\$1,310,000</b>	<b>\$650,000</b>	<b>\$7,080,000</b>
<b>Division: 61 Wastewater - Gorham Village</b>							
Gorham WW Pump Stations - R&R	60	\$90,000	\$10,000	\$15,000	\$10,000	\$10,000	\$135,000

## Capital Expenditures

## Capital Improvement Program - Five Year Plan

Subprogram	#	2016	2017	2018	2019	2020	Five -Year Total
<b>Division 61 Total</b>		<b>\$90,000</b>	<b>\$10,000</b>	<b>\$15,000</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>\$135,000</b>
<b>Division: 62 Wastewater - Westbrook</b>							
Westbrook CSO Abatement	29	\$218,000	\$1,275,000	\$400,000	\$3,200,000		\$5,093,000
Westbrook WW Systems R&R	411	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
<b>Division 62 Total</b>		<b>\$228,000</b>	<b>\$1,285,000</b>	<b>\$410,000</b>	<b>\$3,210,000</b>	<b>\$10,000</b>	<b>\$5,143,000</b>
<b>Division: 64 Wastewater - Joint Westbrook</b>							
SCADA /Process Control - Wastewater	177		\$57,668		\$10,000		\$67,668
Westbrook Gorham Windham Regional WWTF - Capital	167	\$1,000,000			\$150,000	\$600,000	\$1,750,000
Westbrook/Gorham /Windham WWTF R&R	416	\$62,000	\$50,000	\$125,000	\$50,000	\$50,000	\$337,000
<b>Division 64 Total</b>		<b>\$1,062,000</b>	<b>\$107,668</b>	<b>\$125,000</b>	<b>\$210,000</b>	<b>\$650,000</b>	<b>\$2,154,668</b>
<b>Division: 66 Wastewater - Peaks</b>							
Peaks Island R&R	423	\$120,000	\$155,000	\$55,000	\$20,000	\$10,000	\$360,000
<b>Division 66 Total</b>		<b>\$120,000</b>	<b>\$155,000</b>	<b>\$55,000</b>	<b>\$20,000</b>	<b>\$10,000</b>	<b>\$360,000</b>
<b>Grand Total</b>		<b>\$14,595,000</b>	<b>\$19,113,068</b>	<b>\$13,940,150</b>	<b>\$16,382,000</b>	<b>\$10,725,000</b>	<b>\$74,755,218</b>

## 2015 CIP Progress Report

<u>Program</u>	<u>CIP #</u>	<u>Appropriated Funds</u>	<u>Carry over projects to 2015</u>	<u>Unspent- appropriate to R&amp;R</u>
<b><u>SCADA &amp; Technology</u></b>				
SCADA /Process Control - Water	110	\$80,000	Completed 2015 (2455, 2488 unspent)	\$65,000
SCADA /Process Control - Wastewater	177	\$178,697	Completed 2015	
Technology Upgrades	50	\$185,000	Completed 2015 (2499 unspent)	\$50,000
<b><u>Vehicle &amp; Equipment Replacement</u></b>				
Vehicle & Equipment Replacement	326	\$275,000	Completed 2015	
<b><u>Wastewater Collection Systems &amp; Pumping</u></b>				
Cape Elizabeth Pump Stations - R&R	52	\$30,000	Partially spent	\$15,000
Cape Elizabeth Pump Stations - Capital	407	\$95,000	Unspent	Bond
Cumberland WW Pump Stations - R&R	41	\$40,000	Unspent	\$40,000
Gorham WW Pump Station - R&R	60	\$10,000	Unspent	\$10,000
Portland Pump Station - R&R	70	\$206,400	Completed 2015	
Westbrook CSO Abatement	29	\$1,000,000	Started, complete in 2016	
Westbrook WW Systems R&R	411	\$10,000	Unspent	\$10,000
Windham Little Falls System R&R	180	\$20,000	Unspent	\$20,000
<b><u>Wastewater Treatment Facilities</u></b>				
Cape Elizabeth WWTF - R&R	424	\$25,000	Partially spent	\$10,000
Cape Elizabeth WWTF - Capital	418	\$242,500	(2394 reprogrammed)	Bond
East End WWTF - R&R	409	\$455,000	(1818, 2153 reprogrammed)	\$130,000
East End WWTF - Capital	21	\$11,350,200	Started, complete in 2017	
Peaks Island R&R	423	\$155,000	Partially spent	\$20,000
Wastewater Asset Condition Evaluation	421	\$150,000	Started, complete in 2016	
Westbrook/Gorham /Windham WWTF R&R	416	\$90,000	Partially spent	\$35,000

## 2015 CIP Progress Report - continued

<u>Program</u>	<u>CIP #</u>	<u>Appropriated Funds</u>	<u>Carry over projects to 2015</u>	<u>Unspent Re-appropriate to R&amp;R</u>
<b><u>Water Distribution System Upgrades</u></b>				
407 Zone Pump Station Construction	307	\$2,000,000	Unspent, reprogrammed	Bond
Meter Replacement and Leak Detection	63	\$245,000	Completed 2015	
Water Distribution Valve Replacement	53	\$200,000	Completed 2015	
Water Hydrants Replacement	65	\$200,000	Completed 2015	
Water Main Renewal - Cast Iron Mains	43	\$5,900,000	Started, complete in 2016	
Water Main Renewal - Galvanized Mains	111	\$1,000,000	Completed 2015	
Water Main Renewal - Seasonal Mains	53	\$20,000	Completed 2015	
Water Services - Renew Domestic & Fire	61	\$200,000	Completed 2015	
Water System Redundancy (Looping) and Upsizing	408	\$50,000	Unspent	\$50,000
<b><u>Water Facilities Program</u></b>				
Facilities Improvements	68	\$390,000	Partially spent	
SLWTF Treatment Process Improvements	315	\$500,000	Completed 2015	
Water Facilities Renewal and Replacement	122	\$80,000	Started, complete in 2016	
Water Storage Facility Maintenance & Upgrade	203	\$75,000	Unspent	\$75,000
<b><u>Water Supply - Sebago Lake and Steep Falls</u></b>				
Water System Security	46	\$62,900	Completed 2015	

**Completed 2015** - This designates the subprogram is either completed or will be completed by first quarter of 2016. Carry over projects are projects that were programmed to be started in 2015 but will not start until sometime in 2016.

In the following Subprogram descriptions, items highlighted in gray are going to happen in 2016.

## 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
<b>Total Cost, All Years:</b>		<b>\$434,000</b>

### 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
<b>Total Cost, All Years:</b>		<b>\$100,000</b>

**Previous Years on CIP:**

None

**Related Projects:**

Subprogram #1 – Watershed Land Acquisition

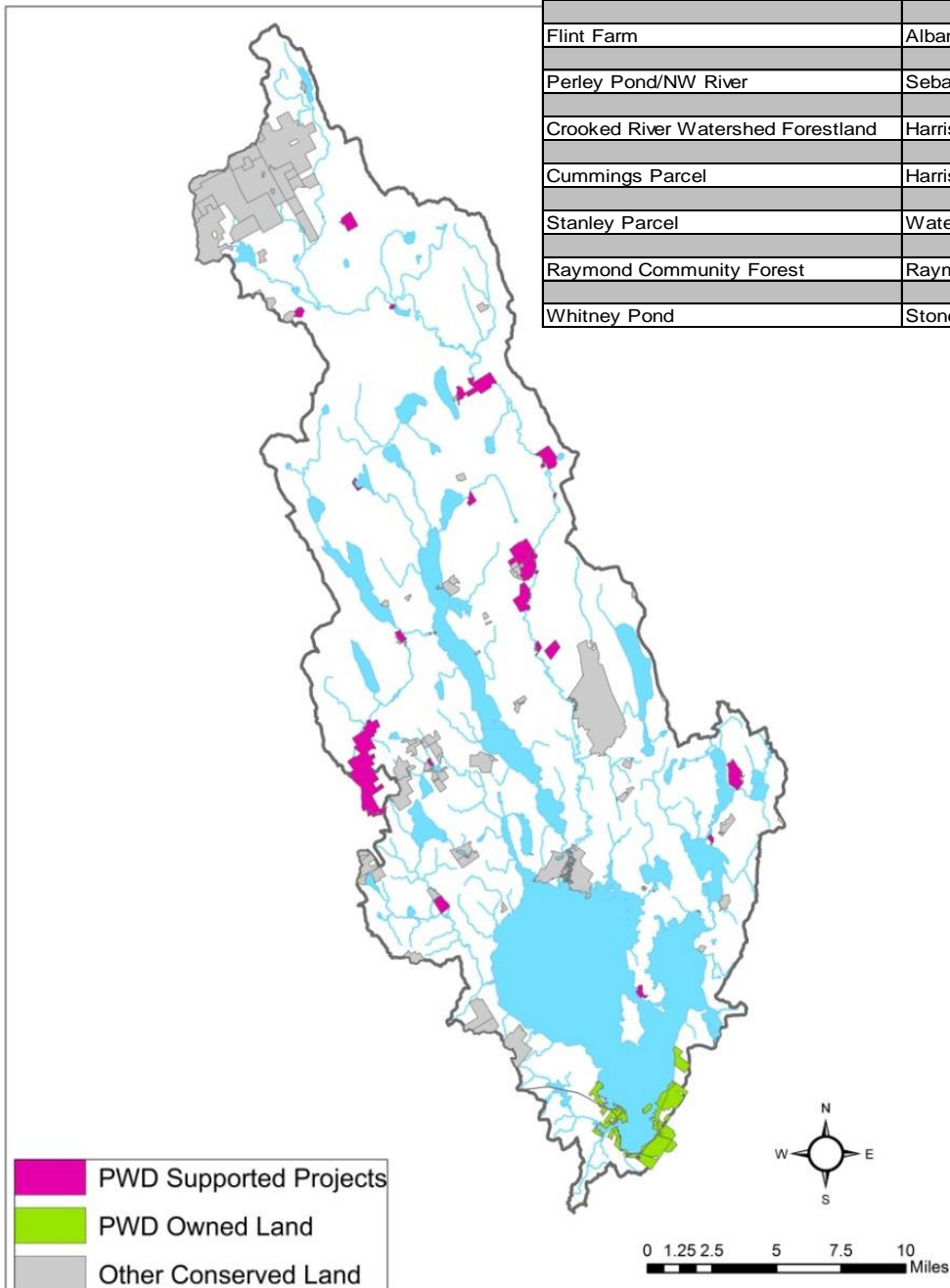
**Procurement Issues:**

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:** Johnson, Gordon**Funding:** Bonds - Water**Priority:** Routine replacement**Description:**

This project involves selecting and installing a screen system to replace the existing screens in service at the intakes on Sebago Lake. The present systems use two travelling screens with backwash at each location with three sets of hand screens at the 1925 Intake and two sets of hand screens at the 1952 Intake.

**Justification / Impact:**

The existing equipment is approaching 50 years old and is basically worn out. The new equipment will be chosen to automate the screening process as much as possible to minimize operator time and reduce/prevent fish breakthrough.

**History:**

The intake screens were supposed to be retired after SLWTF start-up. Manual screens, designed for the inlet channel of the ozone contactor, were supposed to replace the need for the ones at the intakes. Unfortunately, a method for washing the screens was not designed into the facility. Many attempts were made to use the inlet screens before deciding to continue the use of the intake screens.

**Origin of the Subprogram:**

The hand and travelling screens at the intake buildings were installed in the early 1950's. They are past their expected lifespan. Present washing procedures are labor intensive, requiring nine to fifteen labor hours per week. We have experienced small fish getting by the screens and showing up in the clearwell. The ozone and chlorination process kills the fish, but we do not want to let them escape into the system.

**Budget Summary:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2018	675 Replace Mechanical Screens with Intake Screens	\$1,100,000
<b>Total Cost, All Years:</b>		<b>\$1,100,000</b>

**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**Description:**

The Portland Comprehensive Plant Evaluation (CPE) Program completed in 1998 identified a long range series of plant system upgrades needed to replace obsolete equipment and systems to meet future operating and regulatory conditions. This CPE Upgrade Program represents the phased implementation of that long range program. The inclusion of the initial phase of odor control was requested by the City of Portland and included in this Program. This Program continues to provide for the replacement of outdated and obsolete systems, including the primary clarifier sludge collection equipment and sludge dewatering system.

**Justification / Impact:**

The current facility is 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.

**Origin of the Subprogram:**

The aging facility and increasing difficulty to achieve reliable operations that consistently meet license requirements led to the CPE. This implementation program is a direct result of the CPE.

**Budget Summary:**

<b><u>Budget year</u></b>		<b><u>Project</u></b>	<b><u>Budget Year Cost</u></b>
2017	2547	Headworks Gates and Screen Replacement - Design	\$25,000
2018	2548	Dewatering System Odor Control System Expansion	\$200,000
2018	2046	EEWWTF - Influent screen replacement	\$400,000
PEND	2549	High Flow Management Upgrades	\$350,000
<b>Total Cost, All Years:</b>			<b>\$975,000</b>

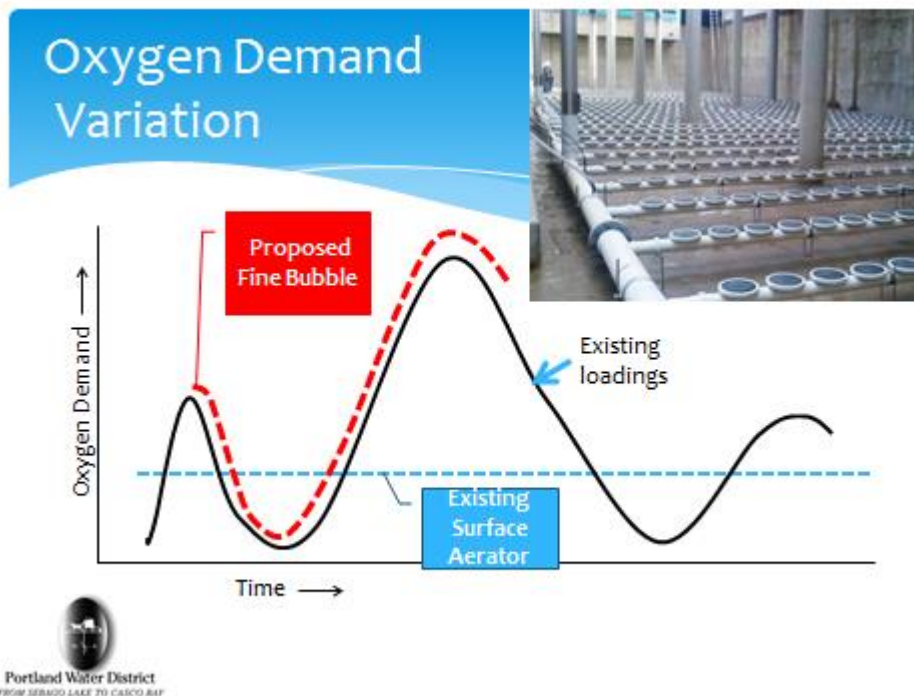
**Previous Years on CIP:** 1999 to present**Related Projects:** 409 EE WWTF- RR**Procurement Issues:** RFP for engineering services. Construction services will be low bid.

## Subprogram # 21 East End WWTF Capital Upgrade

Currently under construction, this is a \$11.3M project that will replace the existing 1978 surface aerators with a fine bubble system. This 2014-2015 project is expected to be completed by August 2017. This is a rendering of the new blowers for the fine bubble aeration system.



This graph demonstrates the performance of the fine bubble aeration system that will be replacing the under performing existing surface aerators.



**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 original 1994 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:**

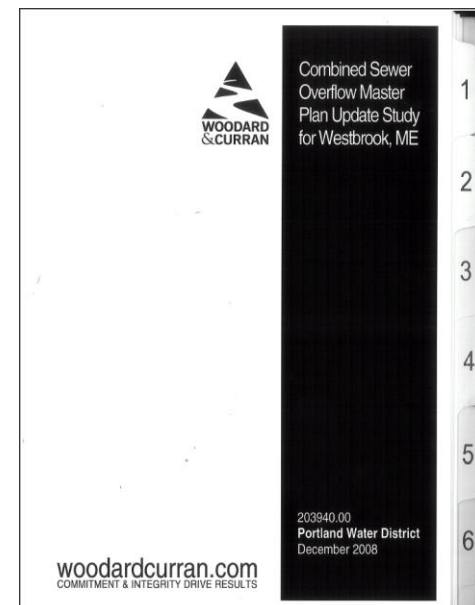
King Street / Brown Street sewer work put aside in lieu of updating the Westbrook CSO Master Plan. Project awarded to Woodard and Curran/Brown and Caldwell. The most recent update of the Master Plan was submitted on 12/31/14. The Brown and King Street Project was constructed in 2015

**Origin of the Subprogram:****Budget Summary:**

<b>Budget year</b>	<b>Project</b>	<b>Budget Year Cost</b>
2016	2551 Flow Meter Replacement	\$50,000
2016	2527 Design of upgrades to Dana Court PS	\$168,000
2017	2525 Evaluate size and options for Storage Facility	\$40,000
2017	2523 Design Screens for Warren Ave, Dunn Street CSOs	\$10,000
2017	2528 Upgrades to Dana Court PS and small storage facility	\$1,200,000
2017	2526 Raise Overflow Weirs on Brown, King St. regulators	\$25,000
2018	2524 Construction of Screens	\$100,000
2018	2521 Design New Storage Facility at Siphon Inlet	\$300,000
2019	2522 Construction of New Storage Facility	\$3,200,000
<b>Total Cost, All Years:</b>		<b>\$5,093,000</b>

**Previous Years on CIP:**

2000 to present

**Related Projects:****Procurement Issues:**



**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 require scheduled maintenance and eventual replacement. This program will provide a planned approach to the maintenance management of Cumberland's wastewater pump stations.

**History:**

This planned approach will assist maintenance and operations in moving towards a goal of predictive and preventative maintenance.

**Origin of the Subprogram:****Budget Summary:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2016	2554 Evaluation of Steel Pump Station Structures	\$20,000
2016	2186 Cumberland WW Pump Stations - R&R	\$20,000
2016	2553 Longmeadow Pump Replacement and Telemetry Upgrade	\$75,000
2017	2261 Cumberland WW Pump Stations - R&R	\$20,000
2018	2315 Cumberland WW Pump Stations - R&R	\$20,000
2019	2515 Cumberland WW Pump Stations - R&R	\$20,000
2020	2606 Cumberland WW Pump Stations - R&R	\$20,000
<b>Total Cost, All Years:</b>		<b>\$195,000</b>

**Previous Years on CIP:**

2001 to present

**Related Projects:**

415 - Cumberland Pump Stations Capital Upgrades



Longmeadow Road  
Pump Station  
installed in 1983 -  
Proposed upgrade  
2016

## Condition Assessment – Cumberland Pump Stations



Brookside Drive Pump Station installed in 1983 – Pumps were replaced in 2015. New rating 4.0

<u>2014 Cumberland Pump Station Report</u>			
Station	Rating	Station Type	Address
Brookside PS	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	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:** Johnson, Gordon**Funding:** Bonds - Water**Priority:** Routine replacement**Description:**

Renew, replace, upgrade and loop cast iron water mains using materials and sizing for current and future conditions. Approximately 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.

**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:**

<b>Budget year</b>		<b>Project</b>	<b>Budget Year Cost</b>
2016	1540	Water Main Replacement - Capital	\$6,000,000
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
<b>Total Cost, All Years:</b>			<b>\$30,000,000</b>

**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**

<b>Anticipated Main Replacement Projects - 2016</b>	Districts	Pipe Footage	Partnering Agency
		Installed	
Main Street, Phase 1, 2 - School St. to Husky Dr, School St o 202	GO	5200	MDOT
Marginal Way, Preble to Plowman, Portland	PO	900	Portland
Presumpscot - Providence	PO	2700	
Powland Street - Congress to Sewall/ with 12"	PO	2000	Portland
Woodsford Street, Forest to Melrose	PO	900	
Birch Knoll, Maiden Cove, Garden Lane	CE	2100	Gas Co. South Portland
Thornton Heights - Phase 3	SP	4800	
SP-Westbrook Street, Western Ave to Liberty 8"-1892	SP	2500	
Main Street, Intersection of 295 connector to Scarborough @ Science Park	SP	5900	PACTS/ Mdot South Portland
Broadway (Anthoine Street to Elm Street)	SP	2500	
Postal Service Way, Mussey, Broadway	SP/SC	3600	
River Road - 302 to Heathwood	WI	600	
County Way	PO	200	MDOT
<b>Estimated 2016 totals</b>		33900	

**Priority Projects in 2016**

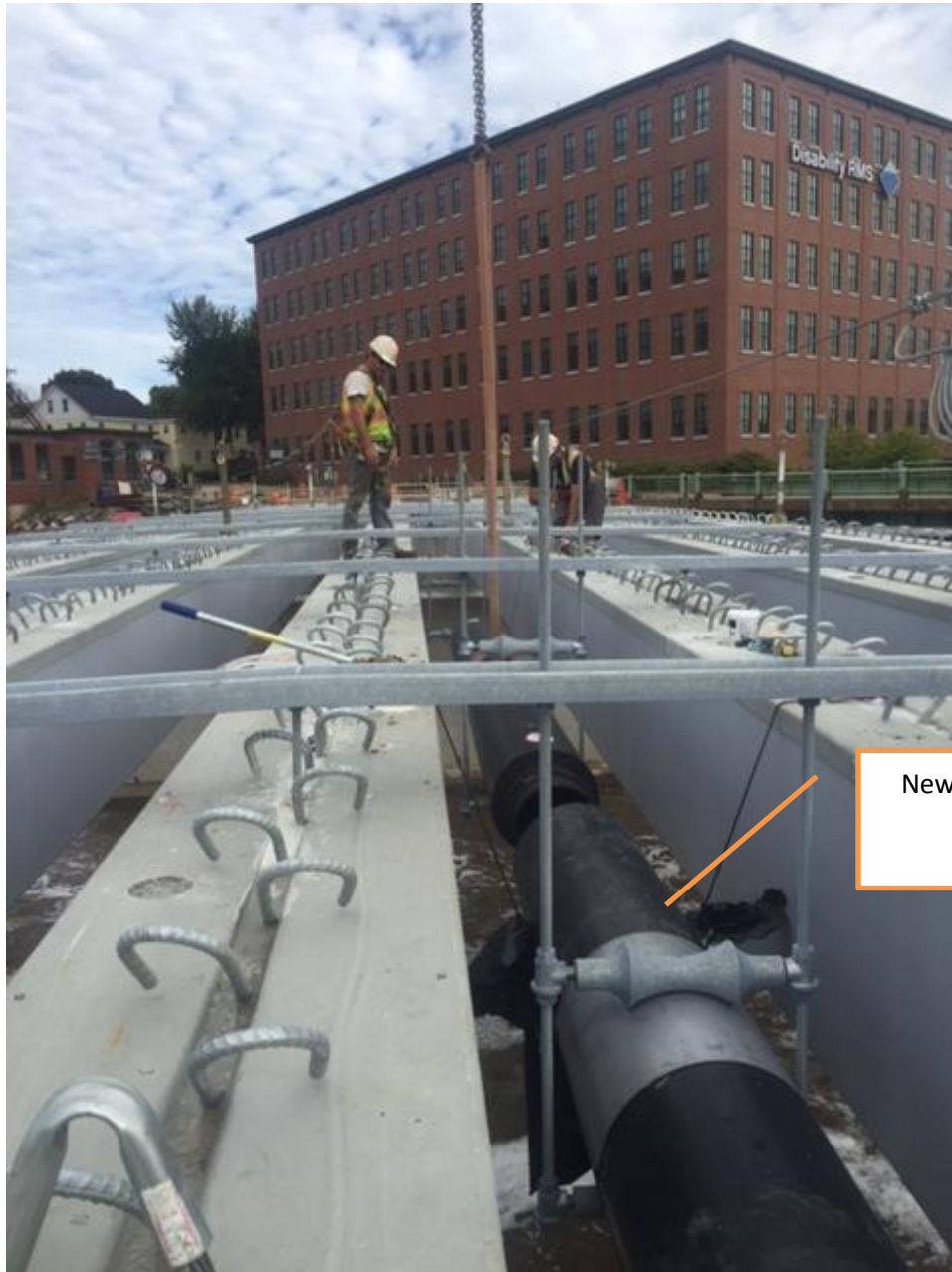
Remaining projects will be constructed if funding is available in 2016 or will be reprogrammed in future years.



2015 - Thornton Height Project Phase 2 Shaw Brothers Construction installation of Hydrant Tee. Project consisted of replacement of 3600-feet of old 1915-1927 undersize pipe. Phase 3 of this project is proposed in 2016

**Subprogram # 43      Water Main Replacement - Capital**

The District partner with MDOT to replace the existing 1957 8-inch cast iron water main on the existing Bridge Street Bridge with a new 12-inch pre-insulated ductile iron bridge crossing pipe. This was a 2015 funded project from Subprogram #43 - \$400,000.



New 12-inch Class 52 Pre-insulated  
Bridge Crossing

**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 (VA) completed in March of 2003 indicated that physical protection of existing facilities could be improved. An update of the VA was completed in November of 2015.

**Budget Summary:**

<b>Budget year</b>	<b>Project</b>	<b>Budget Year Cost</b>
2016	2259 Water System Security improvements	\$25,000
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
<b>Total Cost, All Years:</b>		<b>\$125,000</b>

**Previous Years on CIP:** 2004 to present

**Related Projects:**

**Procurement Issues:** Standard purchasing procedures will apply.

**Subprogram # 46      Water System Security**

Newly installed Infrared camera along with day time camera was mounted on 30-ft pole for real time monitoring of a District's critical asset. This was funded by this program and by grant funds received from the Department of Homeland Security through Cumberland County Emergency Management Agency.



**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.

<b>Budget year</b>	<b>Project</b>	<b>Budget Year Cost</b>
2016	2161 Technology Upgrades	\$65,000
2016	2541 Hansen System Replacement Evaluation	\$100,000
2016	2531 Dark Fiber Connection at Sebago Lake/ Douglass St.	\$65,000
2017	2248 Technology Upgrades	\$200,000
2018	2414 Technology Upgrades	\$200,000
2018	2542 Hansen System replacement (Assets - CMMS)	\$1,000,000
2019	2543 Hansen System Replacement (CIS)	\$1,000,000
2019	2025 Technology Upgrades	\$200,000
2020	2449 Technology Upgrades	\$200,000
2021	2354 AIM Spatial Upgrade	\$20,000
2021	2359 GIS - SCADA integration	\$20,000
<b>Total Cost, All Years:</b>		<b>\$3,070,000</b>

**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

**Origin of the Subprogram:****Budget Summary:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2016	2313 Broad Cove South Pump Station Upgrades	\$50,000
2016	2183 Cape Elizabeth Pump Stations - R&R	\$10,000
2016	2556 Stonegate North Pump Station Upgrades	\$65,000
2017	2260 Cape Elizabeth Pump Stations - R&R	\$30,000
2018	2312 Cape Elizabeth Pump Stations - R&R	\$30,000
2019	2513 Cape Elizabeth Pump Stations - R&R	\$30,000
2020	2610 Cape Elizabeth Pump Stations - R&R	\$30,000
<b>Total Cost, All Years:</b>		<b>\$245,000</b>

**Previous Years on CIP:**

various similar projects in previous years

**Related Projects:**

Subprogram #407 Cape Eliz. Pump Station -Capital

**Procurement Issues:**

Standard purchasing procedures will apply

## 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	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	1.98	Ejection	5 Kenyon Lane
Mitchell Rd Pump Station	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	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
<b>Cape Elizabeth Average</b>	<b>3.38</b>		
<b>PWD Overall Average (74 Stations)</b>	<b>3.47</b>		

**Subprogram # 53****Water Distribution 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:**

<b>Budget year</b>		<b>Project</b>	<b>Budget Year Cost</b>
2016	2176	Replace Distribution Valves	\$200,000
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
<b>Total Cost, All Years:</b>			<b>\$1,000,000</b>

**Previous Years on CIP:**

All

**Related Projects:****Procurement Issues:**

Work is to be performed using District Staff, equipment, and materials



**Subprogram # 56****Water Main Renewal - Seasonal Mains****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R - Water**Priority:** Routine replacement**Description:**

This portion of the Water Main Renewal Program is to replace depreciated Seasonal Surface mains with new Seasonal Surface mains. Approximately 2000 to 3000 feet of main are included annually in this general program.

**Justification / Impact:**

This program improves customer satisfaction with improved water flow and quality and reduces maintenance costs via new leak free materials.

**History:**

This is a long term program in which old galvanized seasonal water mains with capacity, water quality or maintenance problems are replaced on an as-needed basis.

**Origin of the Subprogram:**

Projects are initiated by monitoring customer complaints and leakage problems. When consistent problems are identified, the main is scheduled for replacement.

**Budget Summary:**

<b>Budget year</b>	<b>Project</b>	<b>Budget Year Cost</b>
2016	2173 Water Main renewal - Seasonal Mains	\$25,000
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
<b>Total Cost, All Years:</b>		<b>\$125,000</b>

**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.

**Origin of the Subprogram:****Budget Summary:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2016	1117 Canterbury Pines PS Upgrade	\$60,000
2016	2185 Gorham WW Pump Stations - R&R	\$10,000
2016	2500 Manhole Raising on Main Street Gorham	\$20,000
2017	2264 Gorham WW Pump Stations - R&R	\$10,000
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
<b>Total Cost, All Years:</b>		<b>\$135,000</b>

**Previous Years on CIP:**

2000 - present

**Related Projects:**

71

**Procurement Issues:**

Primarily staff labor for installation using standard parts procured competitively.

## Condition Assessment – Gorham Pump Stations

<u>2014 Gorham Pump Station Report</u>			
Station	Rating	Station Type	Address
Briarwood	3.78	Sub Dup	62 Briarwood Lane
Canterbury Pines	3.54	Sub Dup	14 Canterbury Pines Drive
Gateway Commons	3.83	Sub Dup	57 Clearview Drive
Glenwood Ave	3.59	Sub Dup	21 Glenwood Ave
Heartwood	3.81	Sub Dup	18 Caitlin Drive
Little River	4.08	Sub Dup	240B Mosher Road
Mallison	4.06	Sub Dup	35 Mallison Street
Meadowland Condo	3.72	Sub Dup	33A Joseph Drive
Old Dynamite	4.96	Sub Dup	14 Old Dynamite Way
Olde Canal	4.03	Sub Dup	338 Mosher Road
Park South Condo	3.98	Sub Dup	16 Kiara Lane
Running Spring/Southwoods	3.63	Sub Dup	50 Running Springs Road
Tink Drive	4.93	Sub Dup	46 Tink Drive(back)
University	3.95	Sub Dup	166 School Street
Woodlawn	3.76	Sub Dup	24 Tow Path Road
Gorham Average	3.98		
PWD Overall Average (74 Stations)	3.47		

**2016 – Project #1117 - Canterbury Pines Pump Station Upgrades – Scheduled to replace 25 year old pumps and controls**



**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:**

<b>Budget year</b>		<b>Project</b>	<b>Budget Year Cost</b>
2016	2180	Water services replacement	\$560,000
2017	2255	Water services replacement	\$600,000
2018	2419	Water services replacement	\$600,000
2019	2509	Waterservices replacement	\$600,000
2020	2594	Water services replacement	\$600,000
<b>Total Cost, All Years:</b>			<b>\$3,560,000</b>

**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:**

<b>Budget year</b>		<b>Project</b>	<b>Budget Year Cost</b>
2016	1676	Meter Replacement and Leak Detection	\$250,000
2017	2249	Meter Replacement and Leak Detection	\$250,000
2018	2411	Meter Replacement and Leak Detection	\$250,000
2019	2502	Meter Replacement and Leak Detection	\$250,000
2020	2592	Meter Replacement and Leak Detection	\$250,000
<b>Total Cost, All Years:</b>			<b>\$1,250,000</b>

**Previous Years on CIP:** all  
**Related Projects:** none  
**Procurement Issues:** Standard meter procurement procedures

**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:**

<b>Budget year</b>	<b>Project</b>	<b>Budget Year Cost</b>
2016	2177 Hydrant Replacement	\$200,000
2017	2254 Hydrant Replacement	\$200,000
2018	2417 Hydrant Replacement	\$200,000
2019	2505 Hydrant Replacement	\$200,000
2020	2600 Hydrant Replacement	\$200,000
<b>Total Cost, All Years:</b>		<b>\$1,000,000</b>

**Previous Years on CIP:** All**Related Projects:****Procurement Issues:**

**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:**

<b>Budget year</b>	<b>Project</b>	<b>Budget Year Cost</b>
2016	2246 Facilities Upgrades R&R - Paving Vistors Lot	70,000
2016	2493 Douglass St 3rd Floor Exterior Wall Replacement	250,000
2016	2537 Facilities Upgrade R&R	20,000
2017	2247 Facilities Upgrades R&R	25,000
2017	2535 Douglass Street Slate Roof replacement - Phase 2	250,000
2017	2539 Douglass Street - 2nd floor office and carpet	50,000
2018	2407 Facilities Upgrade R&R	50,000
2018	2536 Douglass Street Roof replacement Phase 3	250,000
2019	2538 Facilities Upgrades R&R	100,000
2019	2540 Douglass Street - Electrical Improvements	100,000
2020	872 Demolish Douglass St. Stock Platform	20,000
2020	2501 Facilities Upgrade R&R	200,000
2021	1070 Lunchroom Addition	100,000
<b>Total Cost, All Years:</b>		<b>1,485,000</b>

**Previous Years on CIP:** 2000

**Related Projects:** None

**Douglass Street 3<sup>rd</sup> floor Exterior Wall Replacement** – Rain Event on September 30, 2015 water was coming through the wall in the Cafeteria. This project will replace the existing siding on three walls of the third floor. The west wall siding was replaced in 2012.





**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.

**Origin of the Subprogram:****Budget Summary:**

<b>Budget year</b>	<b>Project</b>	<b>Budget Year Cost</b>
2016	2191 Portland WW Pump Stations - R&R	50,000
2016	2425 Fore River Pump Station upgrades- Roof replacement	115,000
2016	2566 Northeast Pump 1 Replacement	100,000
2017	1914 Portland WW Pump Station Routine R&R	50,000
2018	2427 Portland WW Pump Stations -R&R	100,000
2019	1875 Systems Generator Installation - Portland	50,000
2020	2567 Northeast Generator Replacement	200,000
<b>Total Cost, All Years:</b>		<b>665,000</b>

**Previous Years on CIP:** 2003**Related Projects:** 420 - Portland WW Pump Station Capital Upgrade Program

**Fore River Pump Station – Roof replacement was proposed for 2015 – Project #2425 but bids were too high reprogramed for 2016**





## Condition Assessment – Portland Pump Stations

2014 Portland Pump Station Report			
Station	Rating	Station Type	Address
Arcadia PS	4.41	Packaged Dry Pit	109 Arcadia Street
Baxter Blvd PS	3.11	Packaged Dry Pit	600 Baxter Boulevard
Congress St PS	2.80	Ejection	1725 Congress Street
Fore River PS	2.35	Packaged Dry Pit	9 Hobart Street
Garrison St PS	2.65	Ejection	4 Garrison Street
India St. PS	3.95	Packaged Dry Pit	176 Fore Street
Northeast PS	2.89	Packaged Dry Pit	437 Marginal Way
Stroudwater St PS	3.34	Canned	103 Blueberry Road
Thompsons Point PS	4.33	Packaged Dry Pit	1 Thompson's Point Unit B
Westbrook St PS	3.65	Sub Dup	1226 Westbrook Street
Centennial	2.59	Sub Dup	47 Centennial Street
Great Pond PS	5.00	Sub Dup	5 3 <sup>rd</sup> Street
Ryefield	3.66	Sub Dup	15 Ryefield Street
Torrington Point	3.26	Sub Dup	30 Torrington Avenue
Portland Average	3.43		
PWD Overall Average (74 stations)	3.47		

**Fore River Pump Station – 2014 Project #1081- Phase 1 - \$1,600,000** – This pump station is currently being upgraded with new pumps, motor controls, and SCADA equipment with a completion date of June 2016– **Phase 2 is programmed in subprogram #420 for 2017**

### Centennial Pump Station (shown below) –

Condition Rating was 2.59. This pump station was upgraded in 2015 with new pumps, a generator and SCADA. Condition rating is now 5.0.

**Before**



**After**



**Subprogram # 95****Lab Equipment Replacement****Division:** Wastewater - General**Manager:** Hunt, Paul**Funding:** R & R - Water**Priority:** Routine replacement**Description:**

This program provides for a planned approach to the replacement of obsolete Lab equipment. The District's Laboratory utilizes many instruments of significant value. An autoclave is used in microbiological analysis, an inductively coupled plasma spectrometer, or ICP for analyzing metals in biosolids, Industrial Pretreatment (IPT) and other wastewater samples. The ICP was replaced in 2011. Autoclave used extensively (daily) to support District's Total Coliform Rule monitoring program.

**Justification / Impact:**

Maintain laboratory ability to prepare sample collection bottles and microbiological medians to support TCR analyses.

**Budget Summary:**

<b>Budget year</b>	<b>Project</b>	<b>Budget Year Cost</b>
2016	2588 RO/DI Lab Water System (East End Lab)	\$12,000
<b>Total Cost, All Years:</b>		\$12,000

**LABORATORY INSTRUMENTATION - October 2015**

<b>CIP (&gt; \$10K)</b>	<b>LAB</b>	<b>ASSET ID</b>	<b>YEAR PURCH</b>	<b>COST</b>	<b>CONDITION</b>
RO/DI Water System	SL	STW01LB-DIS80120	2010	\$10,000	Good
RO/DI Water System	EE	POS01LB-DIS80100	2003/2008	\$10,000	Bad, replace soon
ICP, Perkin Elmer	EE	POS01LB-ANA80300	2011	\$50,000	Good
Autoclave, Consolidated	SL	STW01LB-AUT80105	2014	\$40,000	Good
Microscope, Olympus	EE	POS01LB-ANA80215	1995	\$35,000	Good
<b>Significant O&amp;M (\$5K-\$10K)</b>	<b>LAB</b>	<b>ASSET ID</b>	<b>YEAR PURCH</b>	<b>COST</b>	<b>CONDITION</b>
BOD Dishwasher	EE	N/A	2016	\$8,000	To be purchased
Autoclave, Tuttnauer	EE	POS01LB-AUT80110	2013	\$6,000	Good
Air Compressor	SL	STW01LB-CPR80100	1993	\$6,000	Bad, running to fail
Vacuum	SL	STW01LB-VAC80120	1993	\$6,000	Bad, running to fail
Spectrophotometer, Hach DR5000	EE	POS01LB-ANA80225	2010	\$7,000	Good
Spectrophotometer, Hach DR6000	SL	STW01LB-ANA80150	2012	\$8,000	Good

**Subprogram # 110****SCADA /Process Control -Water****Division:** Wastewater - 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

**Origin of the Subprogram:****Budget Summary:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2016	2512 SCADA System PLC Program Management Sys. - Phase 2	\$40,000
2016	2461 SLWTF SCADA Server Renewal Program	\$18,000
2016	2544 Process Control and SCADA Upgrades	\$50,000
2017	2250 Miscellaneous Control Project Upgrades	\$50,000
2017	2596 SCADA Radio Modem Replacement Project - phase 2	\$70,000
2018	2412 Miscellaneous Control Project Upgrades	\$50,000
2019	1807 Miscellaneous Control Project Upgrades	\$50,000
2019	2464 Douglass St SCADA PC Renewal Program	\$5,000
2020	2174 Miscellaneous Control Projects Upgrade	\$50,000
<b>Total Cost, All Years:</b>		<b>383,000</b>

**Previous Years on CIP:** 2003**Related Projects:** 177

**Subprogram # 111****Water Main Replacement - R&R****Division:** Water - General**Manager:** Johnson, Gordon**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.

**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:**

<b>Budget year</b>		<b>Project</b>	<b>Budget Year Cost</b>
2016	2172	Water Main Replacement- R&R	\$1,000,000
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
<b>Total Cost, All Years:</b>			<b>\$5,000,000</b>

**Previous Years on CIP:**

All

**Related Projects:**

43 Cast Iron Main Renewal

**Procurement Issues:**

Project will be placed out to bid



**2015 -Thornton Heights Project Phase 2 – 3600-feet of circa 1927 pipe was replaced - \$900,000**

Shaw Brother Construction replacing old 6-inch pipe with new 8-inch poly wrapped ductile iron pipe



**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:**

<b>Budget year</b>	<b>Project</b>	<b>Budget Year Cost</b>
2016	2456 Water Facilities Renewal and Replacement	\$50,000
2016	2457 SLWTF Lobby Skylight repair and window replacement	\$50,000
2016	2550 Raw water, finish water PumpVFD Replacements	\$40,000
2016	2552 Standby Genertor Cooling Tower Core repair	\$45,000
2016	2555 Steep Falls Pump Interior Piping Replacement	\$15,000
2017	2378 SLWTF HVAC Controls Replacement	\$50,000
2017	2454 SLWTF Ammonia Storage Tank Replacement	\$75,000
2018	2415 Water Facilities R&R	\$50,000
2019	2175 Water Facilities R&R	\$50,000
2020	2252 Water Facilities R&R	\$50,000
<b>Total Cost, All Years:</b>		<b>\$475,000</b>

**Previous Years on CIP:** 2007 to present

**Sebago Lake Water Treatment Facility (SLWTF)**  
**Built 1994**



**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:**

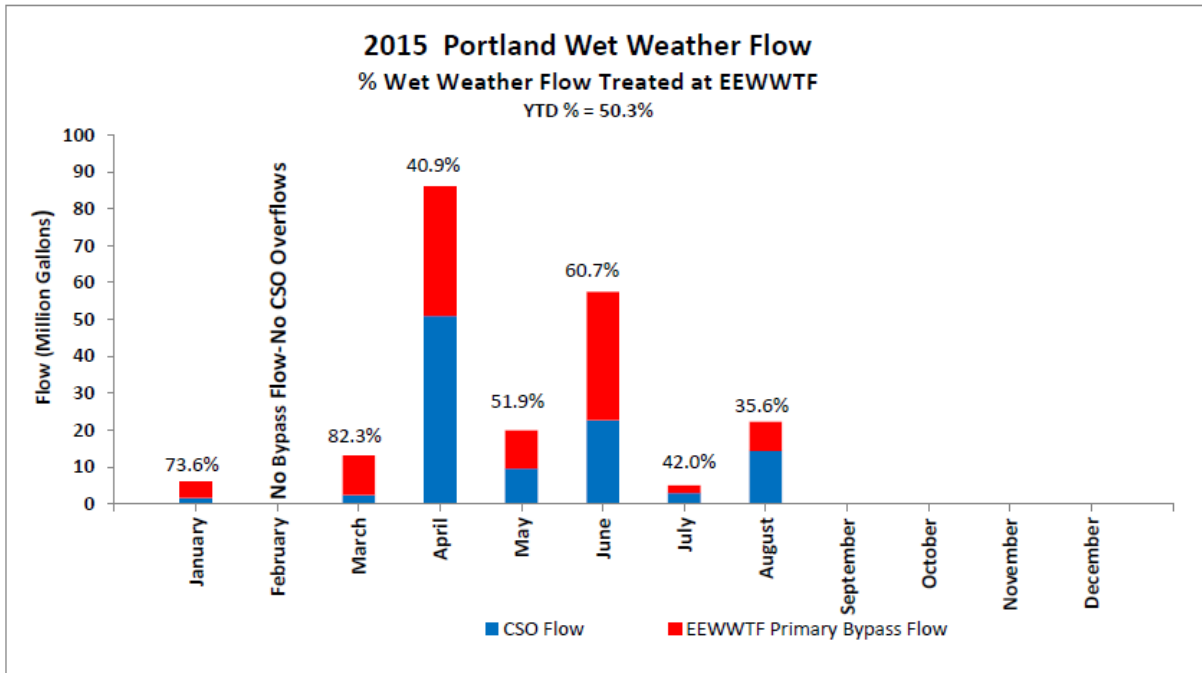
All except for two CSO's are real time monitored by either ADS Environmental or Flow Assessment since 2010. Minor evaluation of India Street Tide gate performed by Johnson and Jordan in 2013.

**Budget Summary:**

<b>Budget year</b>		<b>Project</b>	<b>Budget Year Cost</b>
2016	2565	CSO Flow Meter Upgrade (Software, Hardware)	\$200,000
2017	2577	India St Tide Gate Replacement	\$200,000
<b>Total Cost, All Years:</b>			<b>\$400,000</b>

**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 is over 27 years old and many of the existing systems have reached or exceeded the design life of the equipment. Even with the excellent level of 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. The project schedule presented in the report has been reprioritized by Staff to reflect a detailed 5 year plan, with other work extended beyond that period.

### Origin of the Subprogram:

### Budget Summary:

Budget year	Project	Budget Year Cost
2016	2534 WGWRWWTF Sludge Dewatering Upgrades	\$1,000,000
2019	992 Secondary Clarifier Improvements Design	\$150,000
2020	2578 Secondary Clarifier Improvements - Construction	\$600,000
PEND	2587 Phosphorus Removal Upgrades if Required	unknown
<b>Total Cost, All Years:</b>		<b>1,750,000</b>

**Previous Years on CIP:** all

**Related Projects:**

**Procurement Issues:**

**Sludge Dewatering upgrades** – 2015 the District piloted KFC screw press



**Subprogram # 177****SCADA /Process Control - Wastewater**

**Division:** Wastewater - Joint Westbrook  
**Funding:** R & R - Wastewater

**Manager:** Richard, Emile  
**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.

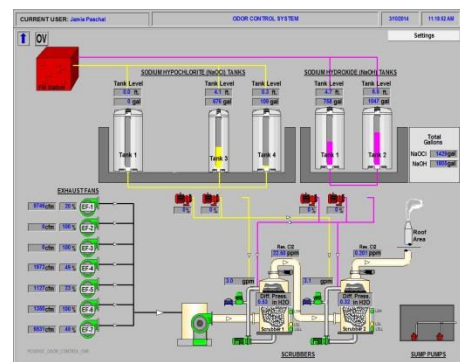
**History:**

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.

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2017	2267 Process Control and SCADA upgrades	\$50,000
2017	2467 Westbrook SCADA Server Renwal Program	\$19,000
2017	2492 Replace Shore Acres Telemetry Repeater	\$225,400
2017	2529 SCADA System PLC Program Management Sys. - Phase 3	\$38,668
2018	2428 Process Control and SCADA upgrades	\$50,000
2018	2530 SCADA System PLC Program Management Sys. - Phase 4	\$25,150
2018	2597 SCADA Radio Modem Replacement Project - phase 3	\$100,000
2019	2028 Process Control and SCADA upgrades	\$50,000
2019	2463 EEWWTP SCADA PC Renewal Program	\$17,000
2019	2466 Westbrook SCADA PC Renewal Program	\$10,000
2019	2598 SCADA Radio Modem Replacement Project - phase 4	\$110,000
2020	1683 Process Control and SCADA upgrades	\$50,000
PEND	2369 High Flow Control Programing	\$25,000
<b>Total Cost, All Years:</b>		<b>\$770,218</b>

**Previous Years on CIP:** 2003 to present

**Related Projects:** 110

**SCADA Screen - East End WW Odor Control**

**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:**

<b>Budget year</b>	<b>Project</b>	<b>Budget Year Cost</b>
2016	2317 Androscoggin Pump Station Upgrades	\$30,000
2016	2423 Windham R&R	\$20,000
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	2605 Windham - Little Falls WW System R&R	\$25,000
<b>Total Cost, All Years:</b>		<b>\$135,000</b>

**Previous Years on CIP:** 2000 to present**Related Projects:**

**Procurement Issues:** Engineering and contracting will be via standard competitive retention procedures.

## Condition Assessment – Windham Pump Stations

<u>2014 Windham Pump Station Report</u>			
Station	Rating	Station Type	Address
Androscoggin	2.93	Sub Dup	14 Androscoggin Street
RT 202 PS	2.87	Sub Dup	6 Main Street
Windham Average	2.86		
PWD Overall Average (74 stations)	3.47		

### Androscoggin Pump Station and Route 202 Pump Station



## Subprogram # 203      Water Storage Facility Maintenance & Upgrade

**Division:** Water - General

**Manager:** Johnson, Gordon

**Funding:** Bonds - Water

**Priority:** Routine replacement

**Description:**

This project consists of developing an upgrade program for all water storage facilities. Projects that may be necessary includes leak repair, painting, inside liners, base and /or cover needs. In some facilities, recirculation systems to routinely turn over the water in the tank and / or new altitude valves will be installed.

**Justification / Impact:**

The objective of this program is 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 remained were evaluated for their hydraulic value and water quality impact in the Comprehensive Water System Strategic Plan. Those which were considered to be valuable hydraulic assets to the water system will be upgraded via this ongoing program.

**Origin of the Subprogram:**

Maintenance had 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>
2016	368	Water Tank Upgrades	\$25,000
2017	1840	Water Storage Tank Rehab : Gorham Tank	\$400,000
2017	2256	Water Tank Upgrades	\$25,000
2018	2420	Water Tank Upgrades	\$25,000
2019	370	Water Tank Upgrades	\$50,000
2019	1839	Improve Water Quality in Gowen Road Tank	\$50,000
2020	2604	Water Tank Upgrades	\$50,000
<b>Total Cost, All Years:</b>			<b>\$625,000</b>

**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.  
Projects 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).

**Justification / Impact:**

The growth in these communities requires increased capacity. There are also specific service deficiencies and water quality issues that need to be addressed in the 407 Zones.

**History:**

The projects listed below were anticipated by the 1989 Master Plan. Further analysis and identification was undertaken as part of the CWSSP study.

**Origin of the Subprogram:**

Projects identified and proposed phasing outlined in Comprehensive Water System Strategic Plan.

**Budget Summary:**

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2016	507	407 Zone ISO Improvements	\$2,000,000
2017	497	New 407 Zone Tank Design/Construction	\$2,500,000
2019	498	407 Zone N - Piping Improvements	\$1,000,000
<b>Total Cost, All Years:</b>			<b>\$5,500,000</b>

**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.



**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.

<b>Budget year</b>	<b>Project</b>	<b>Budget Year Cost</b>
2016	2162 Annual vehicle and equipment replacement	\$400,000
2017	2245 Annual vehicle and equipment replacement	\$400,000
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
<b>Total Cost, All Years:</b>		<b>\$2,000,000</b>

**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.



**Subprogram # 326****Vehicle and Equipment Replacement****2016 Annual Vehicle and Equipment Replacement****Option 1**

VEH16010 Freightliner Vac Truck Wastewater	Asset Purchases	\$390,000
VEH03100 Trade-in value	Other	(\$40,000)
VEH16020 Service Vac Truck with Valve Turner Water Operations	Asset Purchases	\$70,000
VEH07100 Trade-in value (Service Truck)	Other	(\$15,000)
TRL05920 Trade-in value (Tow behind vac)	Other	(\$5,000)
Total CIP request		\$400,000

**2016 Annual Vehicle and Equipment Replacement****Option 2**

VEH16010 Freightliner Vac Truck Wastewater	Asset Purchases	\$390,000
VEH03100 Trade-in value	Other	(\$40,000)
VEH16040 4X4 Mid size pickup	Asset Purchases	\$32,000
VEH10080 Trade-in value	Other	(\$4,500)
TRL16020 Air Compressor - Tow behind	Asset Purchases	\$13,750
TRL05510 Trade-in value	Other	(\$2,500)
TRL16030 Air Compressor - Tow behind	Asset Purchases	\$13,750
TRL05520 Trade-in value	Other	(\$2,500)
Total CIP request		\$400,000

**Subprogram # 326****Vehicle and Equipment Replacement**

This is 2003 vacuum truck on average cleans about 30,000-feet of sewer line per year along with removing approximately 200-tons of debris from the District's 74 pump station wet wells.



**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 Little John pump station as well as an upgrade to the Little John pump station.

**Justification / Impact:**

The need to eliminate the CSO at Ottawa Road 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 a 2006 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 stated 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". \$2.6-million improvements were made to the Cape Plant and Spurwink pump stations in 2012 to meet the requirements of the Permit

**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>
2016	52	Maiden Cove Upgrade	\$200,000
2016	1867	Peabbles Cove Force Main	\$150,000
2017	1360	Little John Station Upgrade	\$620,000
PEND	867	Ottawa Rd. WWPS Capacity Upgrade	\$150,000
PEND	2086	Ottawa Road CSO Master Plan- Year 1 Implementation	\$50,000
<b>Total Cost, All Years:</b>			<b>\$1,170,000</b>

**Previous Years on CIP:** since 2008**Related Projects:** Subprogram 52**Procurement Issues:**

**Subprogram # 407****Cape Elizabeth Pump Stations - Capital**

**Maiden Cove Upgrade - Currently the lowest condition rating of the Cape Elizabeth System at 1.98**

***Physical Systems Rating (out of 5):*** 2.3

***Comments:*** Building is old and need rehab

***Mechanical Systems Rating (out of 5):*** 1.33

***Comments:*** \*Generator needs upgrade will not start remotely. Ejector pots are old and rusted. Upgrade planned for 2016

***Electrical Systems Rating (out of 5):*** 2.4

***Comments:*** New transfer switch

***Overall Rating (out of 5):*** 1.98



## Subprogram # 408 Upsizing Development

## Water System Redundancy (Looping) and

**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>
2016	2181	Water main looping and or upsizing for development	\$50,000
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
<b>Total Cost, All Years:</b>			<b>\$250,000</b>

**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.

<b>Budget year</b>	<b>Project</b>	<b>Budget Year Cost</b>
2016	2545 Return Activated Sludge System Evaluation	20,000
2016	2557 Secondary Clarifier Condition Assessment	35,000
2016	2558 EEWWTF - R&R	75,000
2016	2562 Security Improvements	25,000
2017	2561 Boiler Replacement - HVAC improvements	150,000
2017	1818 EEWWTF - Plant Water System	50,000
2017	2198 Process Gate Replacement Program	200,000
2017	2559 EEWWTF R&R	75,000
2017	2563 Security Improvements	25,000
2017	2584 CCT and Effluent Flow Meter Isolation - Design	25,000
2018	1817 EEWWTF - Truck Loading Weight Measurement	
2018	1830 EEWWTF - Roadway & Parking Lot Paving	150,000
2018	2153 EEWWTP 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	100,000
2019	1614 HVAC Project - Misc.	350,000
2019	1823 Primary Clarifier Sludge Collection Rehabilitation	75,000
2019	2045 Process Gate Automation	250,000
2020	2585 Gravity Thickener Upgrades	150,000
2020	2586 Replace GBT #1 with New Enclosed Unit	250,000
<b>Total Cost, All Years:</b>		<b>2,155,000</b>

**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.

**History:****Origin of the Subprogram:****Budget Summary:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2016	2187 Westbrook WW Systems R&R	10,000
2017	2266 Westbrook WW Systems R&R	10,000
2018	2322 Westbrook Pump Station R&R	10,000
2019	2518 Westbrook WW Systems R&R	10,000
2020	2608 Westbrook WW Systems R&R	10,000
<b>Total Cost, All Years:</b>		50,000

**Condition Assessment – Westbrook Pump Stations**

<u>2014 Westbrook Pump Station Report</u>			
Station	Rating	Station Type	Address
Cottage Place PS	3.93	Packaged Dry Pit	41 Brown Street
Dana CT PS	2.90	Packaged Dry Pit	7 Reserve Steet
E. Bridge St. PS	3.85	Packaged Dry Pit	757 East Bridge Street
Westbrook Average	3.56		
Overall Average	3.47		



**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.

**Budget Summary:**

<b>Budget year</b>		<b>Project</b>	<b>Budget Year Cost</b>
2016	2580	Routine Renewal and Replacement	50,000
2016	2582	LED Lighting Upgrade	12,000
2017	2265	Routine Renewal and Replacement	50,000
2018	2426	Routine Renewal and Replacement	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
<b>Total Cost, All Years:</b>			<b>337,000</b>

**Previous Years on CIP:****Related Projects:****Procurement Issues:**

**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:**

The current facility is over 30 years old and many of the existing systems have reached or exceeded the design life of the equipment. Even with the excellent level of maintainance, may 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:**

The Maine Department of Environmental Protection wrote into the facility's 2006 license, a requirement that a study to eliminate the bypassing of flows during periods of wet weather must be completed by 12/31/08. . A \$2.6million improvements were made to the Cape Plant and Spurwink pump stations in 2012 to meet the requirements of the Permit

**Origin of the Subprogram:**

In addition to regulatory requirements, address the needs of equipment at or near the end of anticipated service life.

**Budget Summary:**

<b>Budget year</b>		<b>Project</b>	<b>Budget Year Cost</b>
2016	2569	Clarifier and Aeration System Condition Assessment	15,000
2016	2572	UV Disinfection Evaluation	15,000
2017	1911	Cape Elizabeth Treatment Plant - Ph 2 improvements	750,000
2017	2570	Headworks Heating and Ventilation Design	25,000
2018	2394	Cape Elizabeth Effluent Sampling	165,000
2018	2571	Headworks Heating and Ventilation Construction	250,000
2018	2581	Aeration and Mixing Control Upgrade	50,000
<b>Total Cost, All Years:</b>			<b>1,270,000</b>

## Asset Inventory

The District completed a vertical asset inventory of all the treatment plant components and instruments assets at the Cape Elizabeth and Peaks Island wastewater facilities. An inventory of the Westbrook treatment plant is currently underway and scheduled for completion in 2016. These ongoing efforts support maintenance activities, asset tracking and reporting, and treatment plant operations.

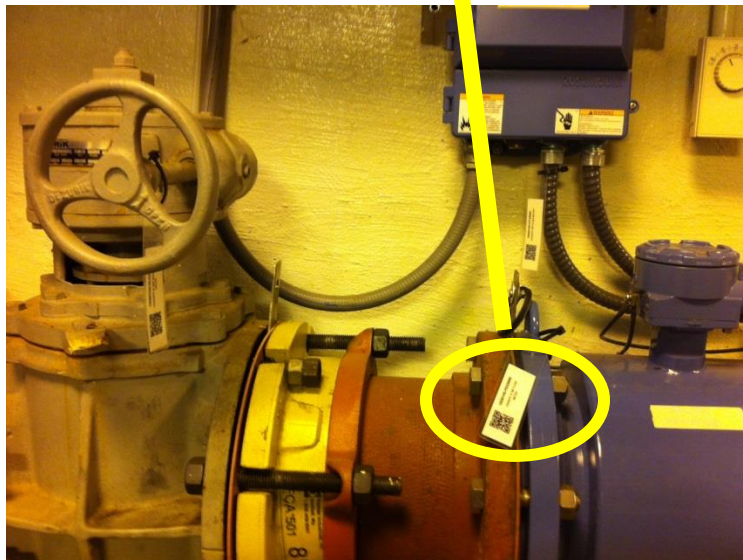


### Asset Inventory

Cape Elizabeth Treatment Plant -420

Peaks Treatment Plant – 300

Westbrook Treatment Plant - 700



**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 27 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:**

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2017	2424	Fore River Pump Station upgrades - phases 3, 4, 5	\$2,500,000
2019	2532	Northeast Pump Station Odor Control	\$535,000
<b>Total Cost, All Years:</b>			<b>\$3,035,000</b>

**Previous Years on CIP:** None**Related Projects:****Procurement Issues:**

**Subprogram # 421****Wastewater Asset Condition Evaluations****Division:** Wastewater - General**Manager:** Firmin, Scott**Funding:** Deferred Operating Expense**Priority:** Upgrade obsolete facility**Description:**

This subprogram will provide needed engineering evaluation and programming of similar asset classes across all wastewater treatment plants and critical influent pump stations. Many of the processes have been upgraded over the years but systems such as electrical and HVAC were not prioritized to be replaced but are critical to the overall operations. Performing engineering evaluations on these critical systems would be first step and developing a long term plan to replace or upgrade these systems to meet current codes.

**Justification / Impact:**

Engineering evaluation to develop prioritized schedule and budget to upgrade electrical distribution and Heating and Ventilation Systems across the major wastewater Treatment Plants. Many of these systems are original to the plants and pump stations (30- 35 years old). The goal is to upgrade these systems to meeting code and allow for additional capacity to meet the future needs.

**History:****Origin of the Subprogram:****Budget Summary:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2016	2472 Evaluation of WWTF HVAC Systems	150,000
<b>Total Cost, All Years:</b>		150,000

**Previous Years on CIP:** none**Related Projects:****Procurement Issues:** RFP for engineering procurement

**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 stations.

**Justification / Impact:**

Physical assets require scheduled maintenance and eventual replacement. This project provides funding for the efficient and timely replacement of equipment using routine and replacement funds.

**History:**

This program has been used at most PWD wastewater systems in the past.

**Origin of the Subprogram:****Budget Summary:**

<b>Budget year</b>		<b>Project</b>	<b>Budget Year Cost</b>
2016	2190	Peaks Island RR	20,000
2016	2575	Influent Screening System Replacement	100,000
2017	2323	Peaks Island R&R	20,000
2017	2348	Peaks WWTF Decant Pump Replacement	125,000
2017	2574	UV Bulb and Sleeve Replacement for 2018 Season	10,000
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
2020	2589	UV Bulb and Sleeve Replacement for 2021 Season	10,000
2021	2576	SBR Equipment Replacement	250,000
<b>Total Cost, All Years:</b>			<b>610,000</b>

**Previous Years on CIP:** 2007 - present**Related Projects:****Procurement Issues:**

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.

**Origin of the Subprogram:****Budget Summary:**

<b>Budget year</b>		<b>Project</b>	<b>Budget Year Cost</b>
2016	2184	Cape Elizabeth WWTF - R&R	20,000
2016	2573	LED Lighting	10,000
2017	2262	Cape Elizabeth WWTF - R&R	20,000
2017	2389	Replacement of Heating Boiler at the S.Cape WWTF	50,000
2018	2055	WAS/RAS Piping Replacement at CEWWTF	50,000
2019	2514	Cape Elizabeth WWTF - R&R	50,000
2019	2568	Rotary Drum Thickener Rehabilitation	20,000
<b>Total Cost, All Years:</b>			<b>220,000</b>

**Previous Years on CIP:** 2006**Related Projects:****Procurement Issues:**



## Subprogram # 425 Redesign

## Watershed Security and Safety - Rt 35/237

**Division:** Water - General  
**Funding:** Land Reserve

**Manager:** Johnson, Gordon  
**Priority:** Security of facilities

**Description:**

Relocate Route 35 in Standish, adjacent to Sebago Lake

**Justification / Impact:**

This will reduce the probability on an accident that could contaminate the Sebago Lake

**History:**

**Origin of the Subprogram:**

**Budget Summary:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
PEND 1668	Route 35/237 relocation	1,000,000
<b>Total Cost, All Years:</b>		1,000,000

**Previous Years on CIP:** None

**Related Projects:**

**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 are 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.

#### **2015-16 Policy Highlights**

##### **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 will be able to authorize rate adjustments and capital financing transaction without the need to also get approval by the Maine Public Utilities Commission.

**Pension:** New GASB Accounting rules establishes 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 is effective in 2015. The estimated amount to contribute to the pension plan is assumed to be \$1.2 million.

## **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 Improvements 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 is planned for 2016. Generally, the Board has approved small annual rate adjustment near the increase in the consumer price index.

In 2013, a new state law allowed for a funding through rates an infrastructure capital reserve. The law allows the District to include an additional 10% in rates to fund a capital reserve. The 2016 budget assumes 1% of the proposed 3.73% 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. For water related fees, the District must file 'terms and conditions' (T&C) with the Maine Public Utilities Commission for their approval. 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, 2014.

#### **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	Target	Maximum
	<u>Weight</u>	<u>Weight</u>	<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. The Water fund currently does not meet the target but is expected to increase its surplus balance to 22.0% by the end of 2016. All Wastewater funds meet the operating fund balance target.

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 8.2%.

The 2010 – 2020 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 going into effect in 2015, the Board adopted a new pension funding policy effective for 2015. The policy states the Districts 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 2016 Budget assume the ADC will be approximately \$1.2 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 help 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 participates in overseeing the district's operation, including reviewing all contracts, and proactively identifying ways to reduce or avoid legal issues.



## Cost Allocation Policy Detail

The District has one water fund and six wastewater funds (Cape Elizabeth, Cumberland, Gorham, Portland, Westbrook and Windham). In addition, the District also provides billing and/or meter reading services to three other municipalities (Falmouth, Scarborough and South Portland).

It is the District's policy to directly assign expenses to a fund/municipality whenever possible. However there are some expenses, such as paid time off or work done by administrative personnel, where such an assignment is not possible. In such cases, an allocation of that cost must be done.

In 1995, the District engaged an outside consultant to review and update its cost allocation process. Since that time, organizational and other changes have necessitated updates and modifications. The changes that were made used the guidelines from the 1995 study. The current allocations were reviewed and approved by the District's current auditors during 2013.

Currently the District uses the following methods to allocate costs:

- Customers Served
- Direct Labor
- General Allocation Percentage
- Gross Asset Value
- Meter Equivalent Units
- Relative Benefits
- Square Footage Utilized

A description of each method, the percentages used in the 2015 Budget and the dollars allocated, are of the following pages.

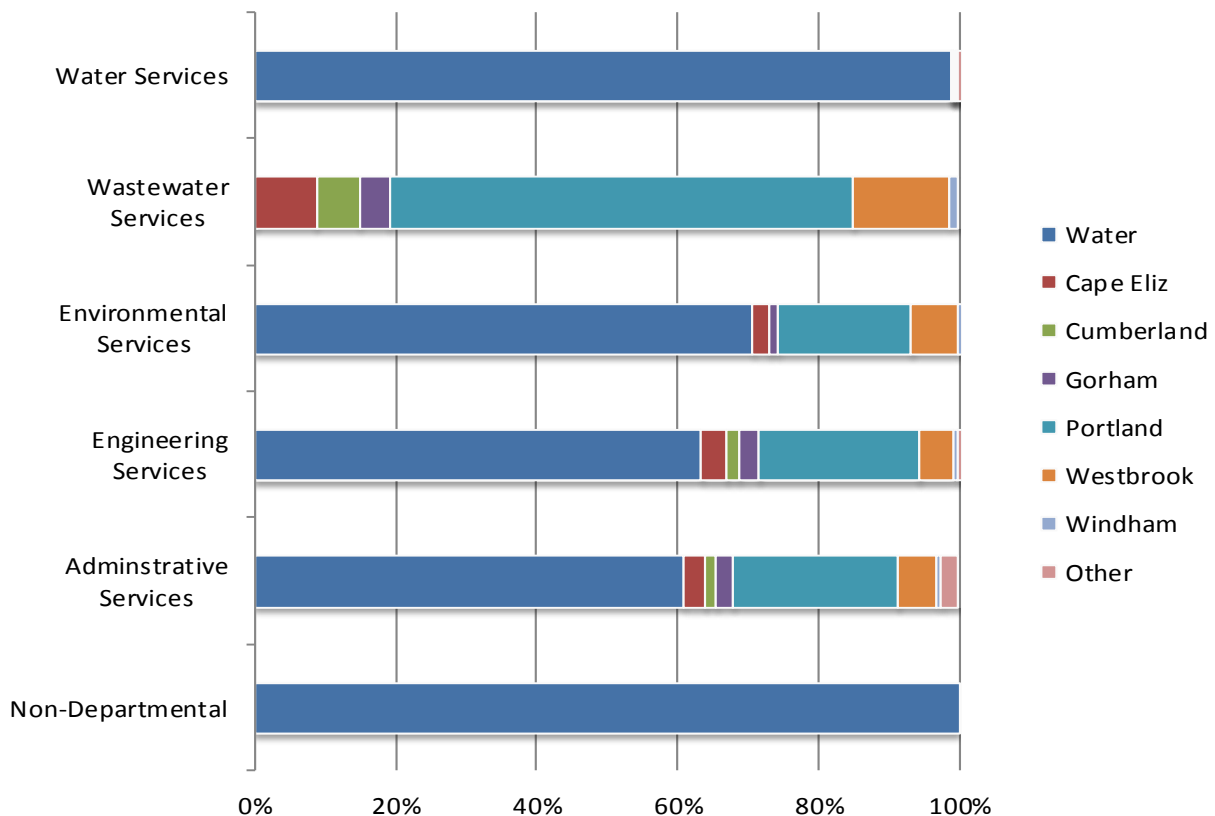
Each financial transaction is assigned a cost center number when the transaction is recorded in the financial system. The fund number indicates whether it is a 'direct' charge to the fund or an 'indirect' charge that will be allocated. Each department's costs are broken down into the fund category in Departmental Expense section (see pages 144-224). All costs ultimately are assigned to the one of the seven enterprise funds or three contract billing municipalities.

<b>Fund</b>	<b>Description</b>	<b>Fund</b>	<b>Description</b>
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 99.9% of the Wastewater Services department costs go the Wastewater funds. The expenditures of the remaining departments assign between 61.0% and 70.8% 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	8,104,858	99.0%	0.1%	0.1%	0.1%	0.4%	0.1%	0.0%	0.2%
Wastewater Services	9,161,824	0.1%	8.8%	6.2%	4.2%	65.8%	13.6%	1.3%	0.0%
Environmenal Services	1,939,965	70.8%	2.4%	0.0%	1.2%	18.9%	6.5%	0.2%	0.0%
Engineering Services	4,017,149	63.5%	3.6%	1.7%	2.9%	22.7%	4.9%	0.6%	0.2%
Administration	5,351,882	61.0%	3.1%	1.6%	2.4%	23.4%	5.6%	0.6%	2.4%
<u>Non-Departmental</u>	<u>347,541</u>	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Department Expense	28,923,219								
<u>(less) Trans Expense</u>	<u>(816,925)</u>								
	28,106,294								



## 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)

#### 2016 Alloc. %:

	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	1.06%	1.01%	1.01%	1.06%
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%

#### 2015 Alloc. %:

	General F1	Billing F1	Mtr Read F1	Pymts H1
Water	67.29%	67.43%	68.79%	65.79%
Cape Eliz	2.15%	2.05%	2.05%	2.15%
Cumberland	1.00%	1.00%	1.00%	1.00%
Falmouth	0.37%	1.72%	0.00%	1.81%
Gorham	1.54%	1.50%	1.50%	1.57%
Portland	16.04%	15.25%	15.25%	16.03%
Scarborough	0.00%	0.00%	0.36%	0.00%
So Portland	7.36%	7.01%	7.01%	7.36%
Westbrook	4.20%	3.99%	3.99%	4.19%
Windham	0.05%	0.05%	0.05%	0.05%
	100.00%	100.00%	100.00%	100.00%

#### Dollars Alloc. :

	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

#### Dollars Alloc. :

	General F1	Billing F1	Mtr Read F1	Pymts H1
Water	\$662,372	\$204,550	\$48,766	\$107,988
Cape Eliz	21,164	6,219	1,453	3,529
Cumberland	9,844	3,034	709	1,723
Falmouth	3,642	5,218	0	2,971
Gorham	15,159	4,550	1,063	2,577
Portland	157,891	46,261	10,811	26,312
Scarborough	0	0	255	0
So Portland	72,449	21,265	4,969	12,081
Westbrook	41,343	12,104	2,829	6,878
Windham	491	152	35	82
	\$984,355	\$303,352	\$70,891	\$164,141

## 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

B3 – East End (Portland) Wastewater Treatment

B4 – Westbrook Regional (including Gorham & Windham), Cape Elizabeth, Peaks Island (Portland) Wastewater Treatment

C1 – Facilities Services

E3 – New Mains & Construction

E7 – Instrumentation (general wastewater)

L6 – Laboratory

L9 – Water/Wastewater Systems

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
2015 Allocation %:	B1	B3	B4	C1	E7	L6	L9
Water	0.00%	0.00%	0.00%	78.28%	0.00%	37.85%	0.00%
Cape Elizabeth	10.74%	3.11%	17.33%	2.73%	10.74%	4.65%	10.74%
Cumberland	3.13%	0.00%	0.00%	0.42%	3.13%	0.00%	3.13%
Gorham	4.58%	0.62%	8.12%	1.10%	4.58%	2.54%	4.58%
Portland	65.74%	92.11%	20.17%	14.23%	65.74%	40.21%	65.74%
Westbrook	14.25%	4.05%	52.94%	3.17%	14.25%	14.47%	14.25%
Windham	1.56%	0.11%	1.44%	0.07%	1.56%	0.28%	1.56%
	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	\$132,566	\$0	\$109,197	\$0
Cape Elizabeth	18,539	8,329	17,726	4,623	6,249	13,415	53,975
Cumberland	5,403	0	0	711	1,821	0	15,730
Gorham	7,906	1,660	8,306	1,863	2,665	7,328	23,017
Portland	113,479	246,679	20,631	24,098	38,248	116,006	330,384
Westbrook	24,598	10,846	54,151	5,368	8,291	41,746	71,615
Windham	2,692	274	1,326	30	1,170	745	6,269
	\$172,617	\$267,809	\$102,287	\$169,349	\$58,181	\$288,500	\$502,561

## General Allocation Percentage

The ratio is calculated by determining each fund's operating budget (total expenditures less other/interest income) as a percentage to the total operating budget.

### Sub-Groups Using Method:

E7 – Instrumentation

H1 – Financial Services

J1 – General Manager's

G1 – Information Service

I1 – Employee Services

Office

2016 Allocation %:	E7	G1	H1	I1	J1
Water	55.17%	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
2015 Allocation %:	E7	G1	H1	I1	J1
Water	54.61%	54.61%	54.61%	54.61%	54.61%
Cape Elizabeth	3.67%	3.67%	3.67%	3.67%	3.67%
Cumberland	2.12%	2.12%	2.12%	2.12%	2.12%
Gorham	2.93%	2.93%	2.93%	2.93%	2.93%
Portland	29.05%	29.05%	29.05%	29.05%	29.05%
Westbrook	6.69%	6.69%	6.69%	6.69%	6.69%
Windham	0.93%	0.93%	0.93%	0.93%	0.93%
	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	E7	G1	H1	I1	J1
Water	\$83,866	\$533,771	\$428,469	\$244,322	\$786,796
Cape Elizabeth	5,636	35,871	28,795	16,419	52,876
Cumberland	3,256	20,721	16,633	9,485	30,544
Gorham	4,500	28,639	22,989	13,109	42,214
Portland	44,613	283,941	227,926	129,968	418,539
Westbrook	10,274	65,390	52,489	29,931	96,386
Windham	1,428	9,090	7,297	4,161	13,399
	\$153,573	\$977,423	\$784,598	\$421,286	\$1,440,754

## 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

#### 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%

#### 2015 Allocation %:

	All	WW
Water	63.08%	0.00%
Cape Elizabeth	3.56%	9.65%
Cumberland	1.75%	4.75%
Falmouth	0.00%	0.00%
Gorham	3.95%	10.71%
Portland	22.42%	60.71%
Westbrook	4.57%	12.37%
Windham	0.67%	1.81%
	100.00%	100.00%

#### 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

#### Dollars Allocated:

	All	WW
Water	\$523,256	\$0
Cape Elizabeth	29,531	21,531
Cumberland	14,516	10,598
Falmouth	0	0
Gorham	32,766	23,896
Portland	185,976	135,457
Westbrook	37,909	27,600
Windham	5,557	4,040
	\$829,511	\$223,122

## 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)

#### 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%

#### 2015 Allocation %:

	A6
Water	65.54%
Cape Elizabeth	1.77%
Cumberland	0.88%
Gorham	1.48%
Portland	17.34%
Scarborough	1.14%
South Portland	7.65%
Westbrook	4.12%
Windham	0.08%
	100.00%

#### 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

#### Dollars Allocated:

	A6
Water	\$92,586
Cape Elizabeth	2,500
Cumberland	1,243
Gorham	2,091
Portland	24,496
Scarborough	1,610
South Portland	10,807
Westbrook	5,820
Windham	113
	\$141,266



## 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)

#### 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	<u>0.26%</u>	<u>0.57%</u>
	100.00%	100.00%

#### 2015 Allocation %:

	F1	L6
Water	95.00%	0.00%
Cape Elizabeth	1.79%	9.30%
Cumberland	0.94%	0.00%
Gorham	0.81%	3.30%
Portland	1.02%	66.93%
Westbrook	0.18%	19.90%
Windham	<u>0.26%</u>	<u>0.57%</u>
	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	<u>419</u>	<u>1,609</u>
	\$161,033	\$282,288

#### Dollars Allocated:

	F1	L6
Water	\$168,813	\$0
Cape Elizabeth	3,181	20,878
Cumberland	1,670	0
Gorham	1,439	7,408
Portland	1,813	150,254
Westbrook	320	44,674
Windham	<u>462</u>	<u>1,280</u>
	\$177,698	\$224,494

## 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 were relatively flat with costs decreasing \$27,223 (3.4%).

### 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

### 2015 Allocation %:

Water Operations	
A1 - Water Administration	2.67%
A2 - Transmission/Distribution	4.56%
A6 - Utility Services	<u>1.41%</u>
	8.64%
Environmental Services	
A5 - Water Resources	<u>0.83%</u>
	0.83%
Wastewater Operations	
B1 - WW Administration	0.83%
L9 - Water/WW Systems	<u>4.59%</u>
	5.42%
Engineering Services	
C1 - Facility Services	23.54%
E2 - Planning & Design	15.09%
E7 - Instrumentation	<u>1.37%</u>
	40.00%
Administration	
F1 - Customer Service	12.10%
G1 - Information Services	6.42%
H1 - Financial Services	8.61%
I1 - Employee Services	3.96%
J1 - BOT & Senior Management	<u>14.02%</u>
	45.11%
	100.00%

### Dollars Allocated:

	\$
Water Operations	\$69,102
Environmental Services	6,638
Wastewater Operations	43,348
Engineering Services	319,916
Administration	<u>360,785</u>
	\$799,789

## 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 costs decreased 6.4%% due in large part reductions in fuel prices.

Vehicle Type	Rate	Active Hours	Stand-by Hours	Total Hours
Backhoe/Loader <19,501 GVW	\$38.46	2,824		2,824
Backhoe/Loader >=19,500 GVW	\$44.29	191		191
Car	\$3.65	315		315
Compressor	\$23.31	2,725		2,725
Dump Truck < 15,000 GVW	\$9.83	470	1,610	2,080
Dump Truck >= 40,000 GVW	\$16.86	3,345	2,895	6,240
Dump Truck 15,001- 40,000 GVW	\$12.63	2,080	6,240	8,320
Generator/Load Bank	\$39.63	425		425
Misc. Const. Equipment - Forklift, etc.	\$26.81	500		500
Misc. Trained Equipment - Cement Mixer, Jet Machine,	\$17.49	438		438
Pick-up Truck/SUV - Heavy - 7,501-10,000 GVW	\$4.78	7,627	7,483	15,110
Pick-up Truck/SUV - Light - < 6,000 GVW	\$3.65	1,020	3,140	4,160
Pick-up Truck/SUV - Medium - 6,001-7,500 GVW	\$3.93	18,987	15,463	34,450
Special Purpose - C - Crane, Sludge, etc.	\$52.45	110		110
Special Purpose - D - Jetvac, etc.	\$69.94	1,264		1,264
Utility Truck 10,001 - 14,000 GVW	\$5.62	4,579	1,662	6,240
Utility Truck 14,001 - 16,000 GVW	\$6.17	4,890	5,510	10,400
Utility Truck 16,001 - 19,500 GVW	\$6.74	5,682	4,899	10,580
Utility Truck 6,001 - 10,000 GVW	\$3.93	8,235	6,325	14,560
Van < 6,000 GVW	\$3.65	3,289	2,951	6,240
Van 6,001-7,500 GVW	\$3.93	1,287	793	2,080
Van 7,501-10,000 GVW	\$4.78	28,620	6,947	35,567
Total Hours		98,903	65,916	164,819

Sub-Group	2015 Budget	2016 Budget	\$ - Difference	% - Difference
A1 - Water Administration	\$496	\$0	(\$496)	-100.0%
A2 - Transmission/Distribution	571,827	567,915	(3,912)	-0.7%
A3 - Water Treatment	37,280	38,123	843	2.3%
A5 - Water Resources	39,948	37,886	(2,062)	-5.2%
A6 - Utility Services	164,569	149,954	(14,615)	-8.9%
B1 - WW Administration	0	500	500	n/a
B3 - Portland (East End) WWTF	36,222	34,452	(1,770)	-4.9%
B4 - Westbrook/Cape/Peaks WWTP's	29,472	28,041	(1,431)	-4.9%
C1 - Facility Services	72,650	51,035	(21,615)	-29.8%
E2 - Planning & Design	31,745	25,748	(5,997)	-18.9%
E7 - Instrumentation	25,175	23,945	(1,230)	-4.9%
F1 - Customer Service	17,189	16,346	(843)	-4.9%
I1 - Employee Services	0	0	0	n/a
J1 - BOT & Senior Management	0	0	0	n/a
L6 - Water/WW Laboratory	1,199	1,257	58	4.8%
L9 - Water/WW Systems	250,695	221,723	(28,972)	-11.6%
	\$1,278,467	\$1,196,925	(\$81,542)	-6.4%

## 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 2016 is \$1,134,541 (down \$323).

**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 \$56,227 in 2016, up 4.6% (\$2,498) mostly due to increases in maintenance costs including snowplowing.

----- Westbrook Regional -----				----- Little Falls -----	
	Gorham	Westbrook	Windham	Gorham	Windham
2012	13.0%	84.7%	2.3%	15.0%	85.0%
2013	13.0%	84.7%	2.3%	15.0%	85.0%
2014	14.0%	83.7%	2.3%	15.0%	85.0%
2015	13.0%	84.7%	2.3%	20.0%	80.0%
2016	15.0%	82.0%	3.0%	22.5%	77.5%

### 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 \$163,000 in 2016 (an increase of 3.1%).

**Falmouth** – All of the wastewater from Cumberland is treated at the Falmouth Treatment Facility through a contractual agreement. This cost is budgeted to be \$364,000 in 2016 (2.4% increase).

----- South Portland -----			----- Falmouth -----		
	Cape Eliz	So Portland	Cumberland	Falmouth	Millcreek PS
2012	6.7%	93.3%	27.0%	73.0%	0.0%
2013	6.7%	93.3%	24.0%	76.0%	40.8%
2014	6.7%	93.3%	24.0%	76.0%	40.8%
2015	6.7%	93.3%	24.0%	76.0%	40.8%
2016	6.7%	93.3%	24.0%	76.0%	40.8%

**Note:** Starting in 2013 Millcreek Pump Station (PS) costs were be allocated to Cumberland at the specific rate above whereas in prior years it was allocated based on the Cumberland flow ratio.

## Joint Use Facilities – Capital Cost Sharing Allocations

The District has two areas where wastewater flows from more than one community are combined. Costs associated with these combinations are allocated by the percentage of the design flow contributed by each community. The areas of combined flow are:

### Portland Water District Facilities:

**Westbrook Regional** – All of the wastewater from Gorham, Westbrook and Windham is treated at Westbrook Regional Wastewater Treatment Facility. In addition, one pump station handles the combined waste from all three communities.

System	--- Millions of Gallons/Day (MGD) ---				----- Flow Percentage -----		
	Westbrook	Gorham	Windham	Total	Westbrook	Gorham	Windham
Southside Interceptor above Manhole 60	0.16	1.06	0.12	1.34	12.0%	79.1%	9.0%
Manhole 60 up to and including Siphon	5.00	1.06	0.12	6.18	81.0%	17.2%	1.9%
Cottage Place Pumping Station & Force Main	2.12	0.70	0.06	2.88	73.7%	24.3%	2.1%
Westbrook Regional WWTF & Outfall	3.02	1.40	0.12	4.54	66.6%	30.8%	2.6%

**Little Falls** –The Little Falls areas of Gorham and Windham used to be a self-contained system with its own small treatment facility. Starting in 2008, wastewater from this area was conveyed to the Westbrook Regional Wastewater Treatment Facility. As it is presently constituted, wastewater from Windham moves into Gorham where it is combined with that community's flow until it joins with the Westbrook flow at the Westbrook town line.

Facility Name	----- Gallons/Day -----			-- Flow Percent --	
	Gorham	Windam	Total	Gorham	Windam
Gray Rd/Mallison St Gravity Sewer	63,500	53,500	117,000	54.3%	45.7%
Mallison St Pump Station (PS)/Flow Meter (FM)	84,000	100,000	184,000	45.6%	54.4%
Mosher Rd Gravity Sewer	145,000	100,000	245,000	59.2%	40.8%
Little River PS/FM	222,500	100,000	322,500	69.0%	31.0%
Mosher Rd & Cross Country Gravity Sewer	638,000	100,000	738,000	86.4%	13.6%
Industrial Park Gravity Sewer Upgrade	2,105,000	100,000	2,205,000	95.5%	4.5%
Woodlawn Ave PS (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.

--- Millions Gallons/Day (MGD) ---			----- Flow Percentage -----		
Facility Name	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.

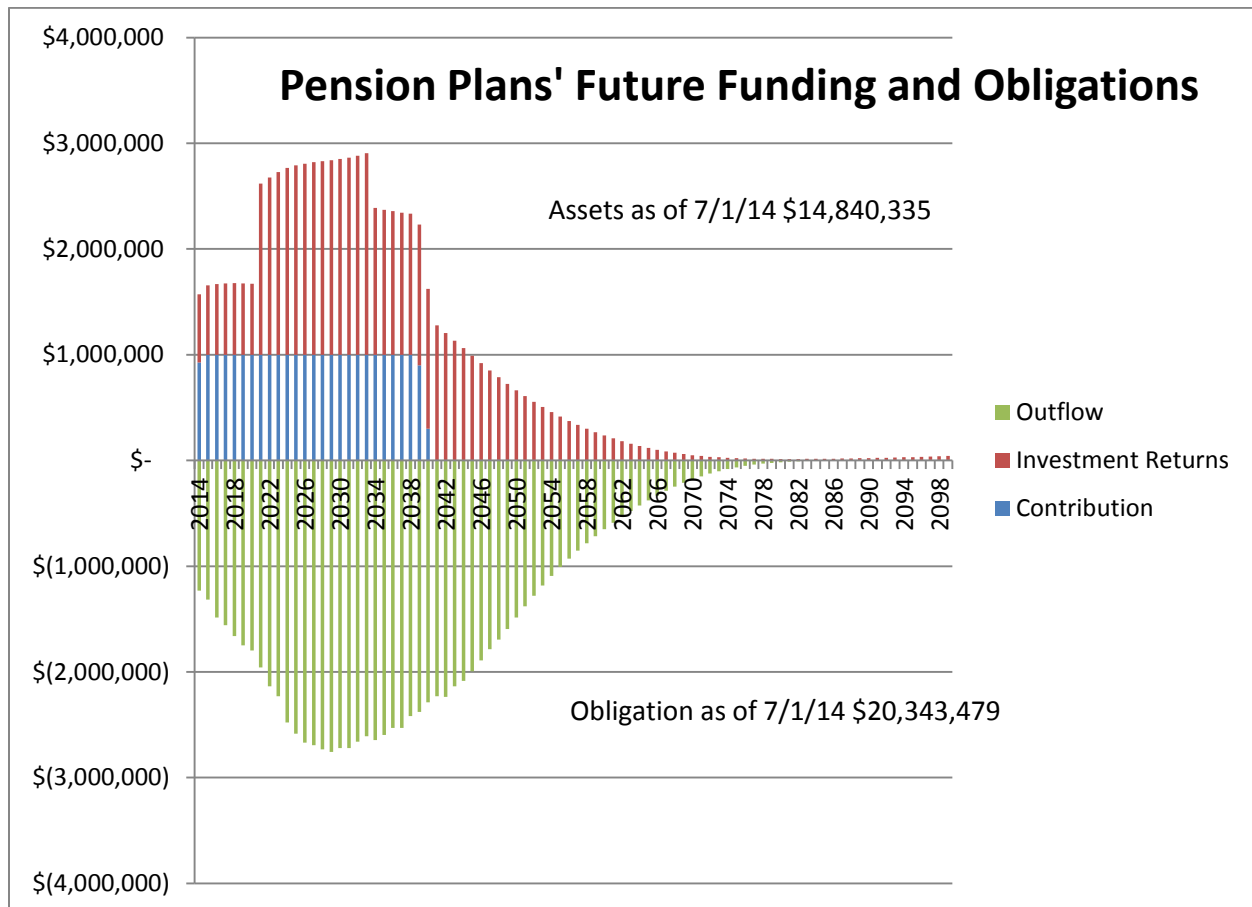
**Falmouth** – All of the wastewater from Cumberland is treated at the Falmouth Treatment Facility through a contractual agreement.

Millions of Gallons/Day (MGD)*			----- Flow Percentage -----		
Facility Name	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 goes into effect in 2015.





## 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*

## Lifeline Water Rates and Water Conservation Grants

PWD offers qualified residential customers discounted lifeline water rates and funds a low-income plumbing assistance program. Since the inception of the program, PWD has helped over 600 applicants reduce water usage. In 2015, the Board of Trustee pledged another \$10,000 to fund the program.



## \$1,500 DiPietro Memorial Scholarship

The 2014 scholarship was awarded to Erin Wright-Little of Windham. Wright-Little is pursuing a degree in biology and environmental science at Saint Joseph's College, and has demonstrated an interest in the water industry and environmental issues through various work experiences, including internships at the Portland Water District and Maine Audubon.

## Portable Water Fountain

The portable water fountain is offered to agencies throughout the community that want to provide free potable water at their events

while minimizing waste from disposable water bottles. In 2015, seven agencies used the fountain.

## Environmental Education

Through our environmental education program, we connect with thousands of students - teaching about our water resources and encourage stewardship.



## Annual Charity Golf Classic

Thanks to all the generous sponsors, participants, and volunteers, the Portland Water District's 14<sup>th</sup> Annual Charity Golf Classic raised nearly \$9,500 for worthy causes supported by United Way and MaineShare.

## Water Bottle Filling Station Grants

In 2013 PWD created a grant program that assists entities install water bottle filling fountains. The Board of Trustees awarded four grants in 2015: One City Center Associates, Southern Maine Community College, Southern Maine Community Recreation Center, and the Falmouth Memorial Library.

## 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.

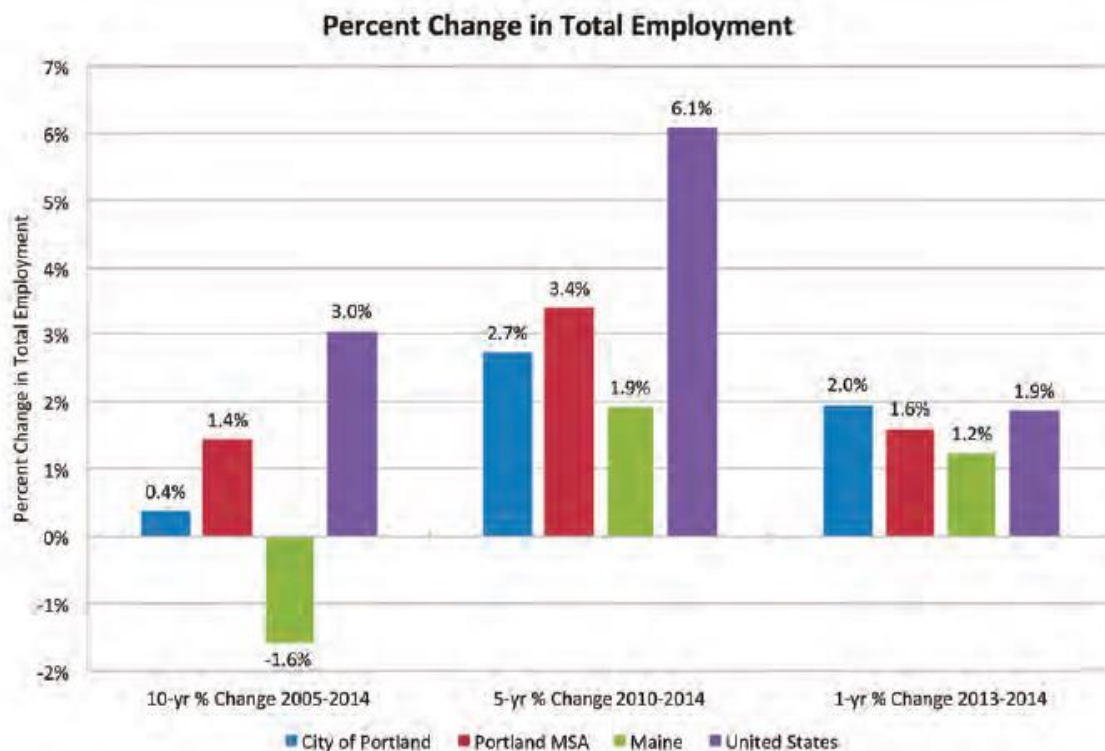
### Total Employment Growth

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 significance to Portland Water District?

Limited employment growth will limit growth in new customers result in any cost interest borne by existing customers.

## Portland Economic Scorecard (continued)

### Unemployment Rate

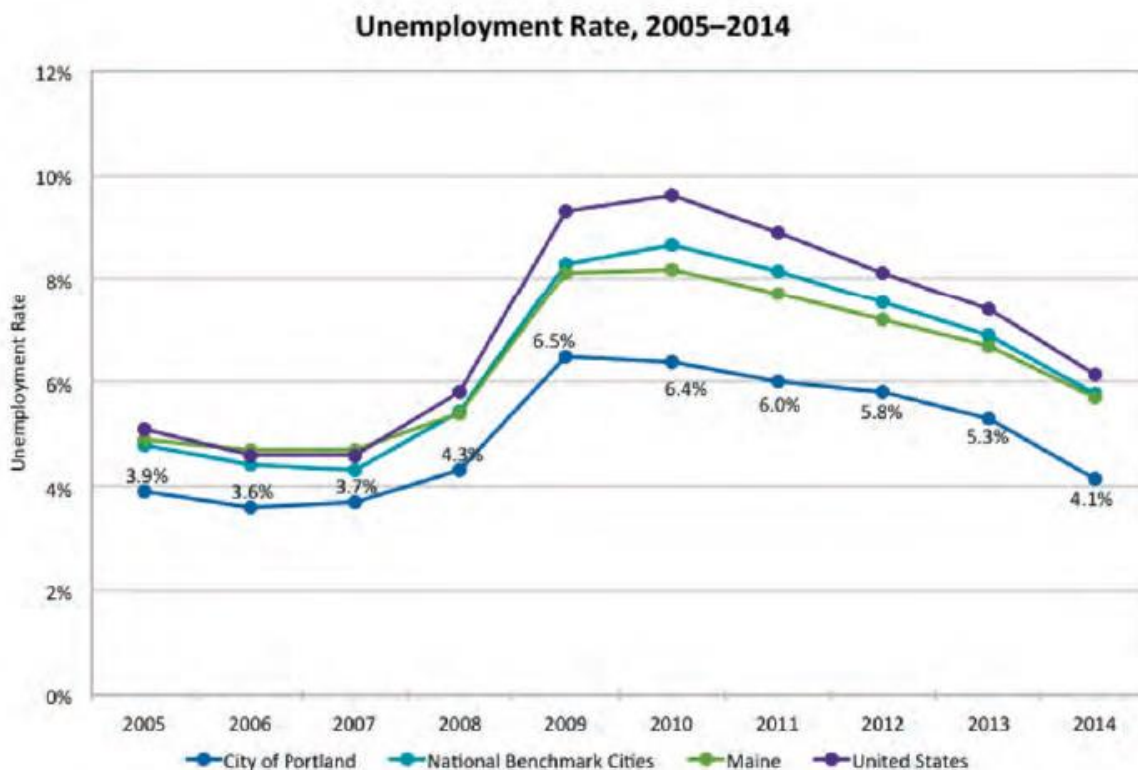
Exceeding ↑

*\*Meaning a lower unemployment rate*

TARGET: The annual city unemployment rate will be below the national benchmarks

From 2005 to 2014, the annual unemployment rate for the City of Portland has remained lower than that of the national benchmark cities.

During this period, the unemployment rate for the City of Portland experienced a low of 3.6% in 2006, rose to a high of 6.5% in 2009, and has since dropped to 4.1% in 2014. Portland's 2014 level of 4.1% compares to 5.7% for the national benchmark cities, 5.7% for Maine, and 6.2% for the U.S. as a whole.



Why is this significance to Portland Water District?

Because relatively more customer 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)

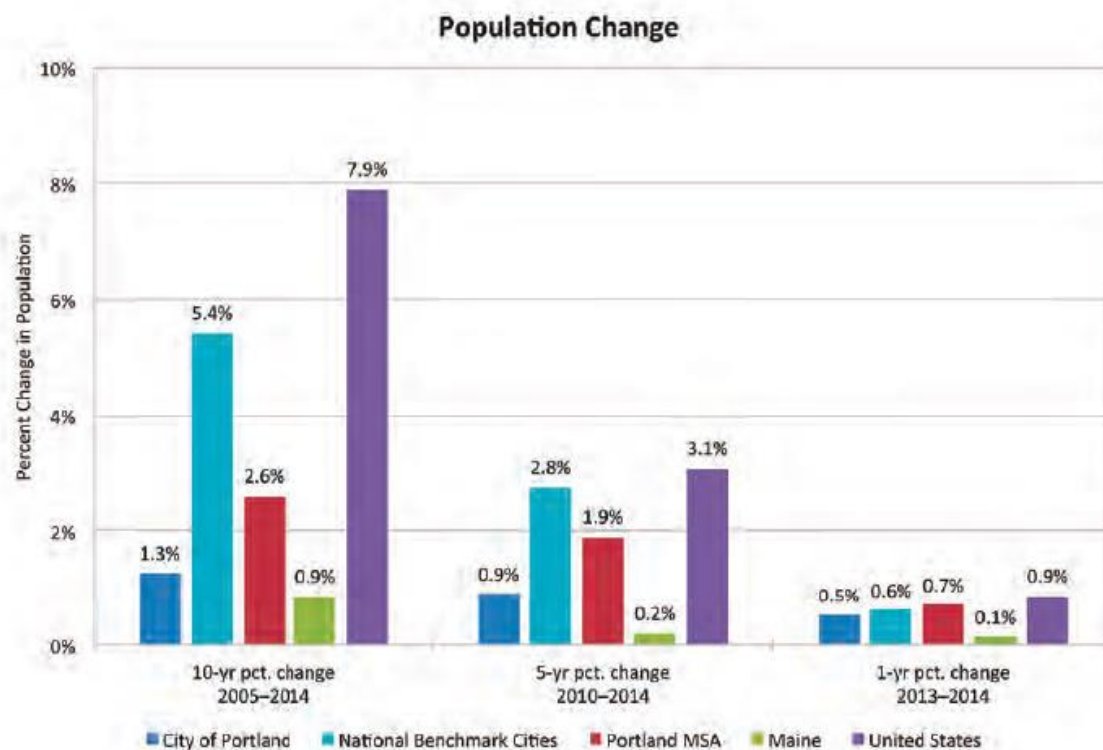
### City Population Growth

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 significance to Portland Water District?

Limited population growth in new customers result in any cost interest borne 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)

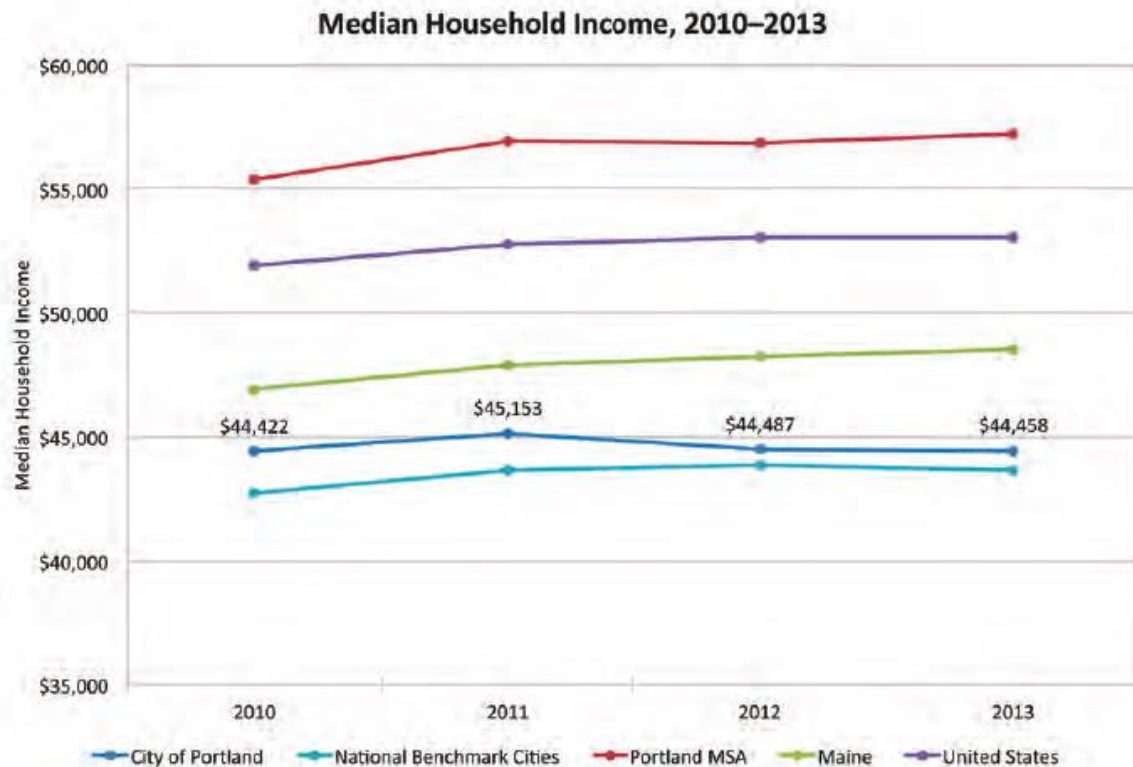
### Median City Household Income

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 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)

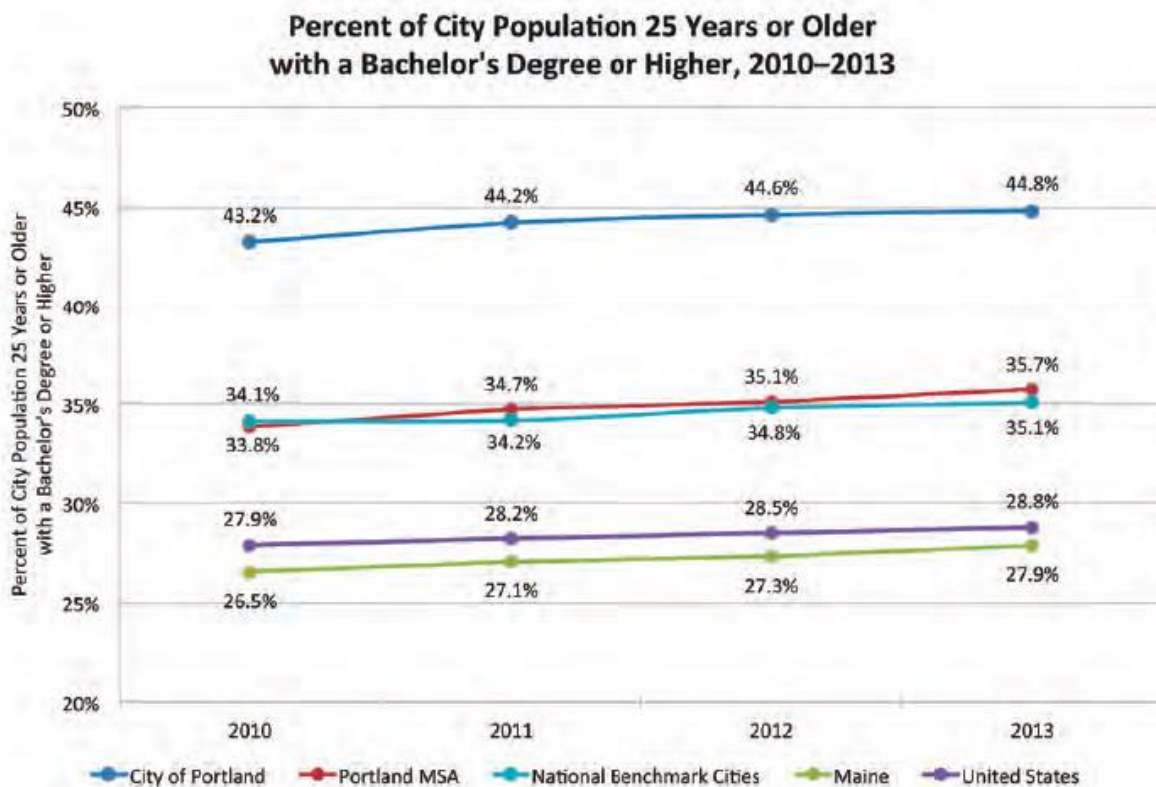
### Educational Attainment

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 significant 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

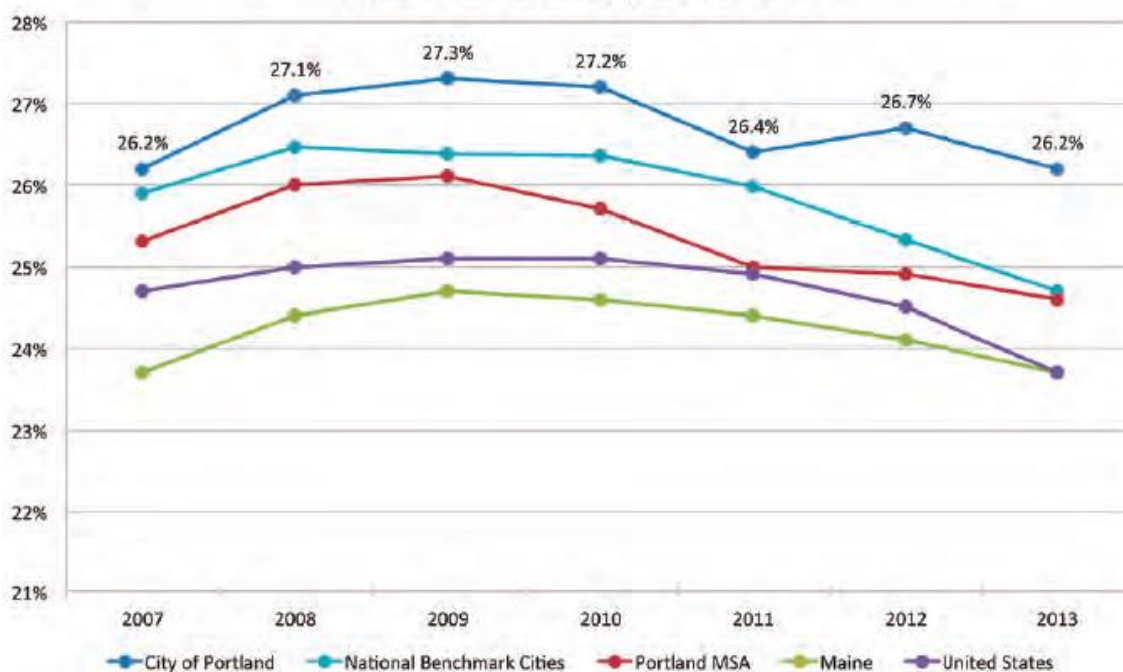
Lagging ↓↓

**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 significant 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

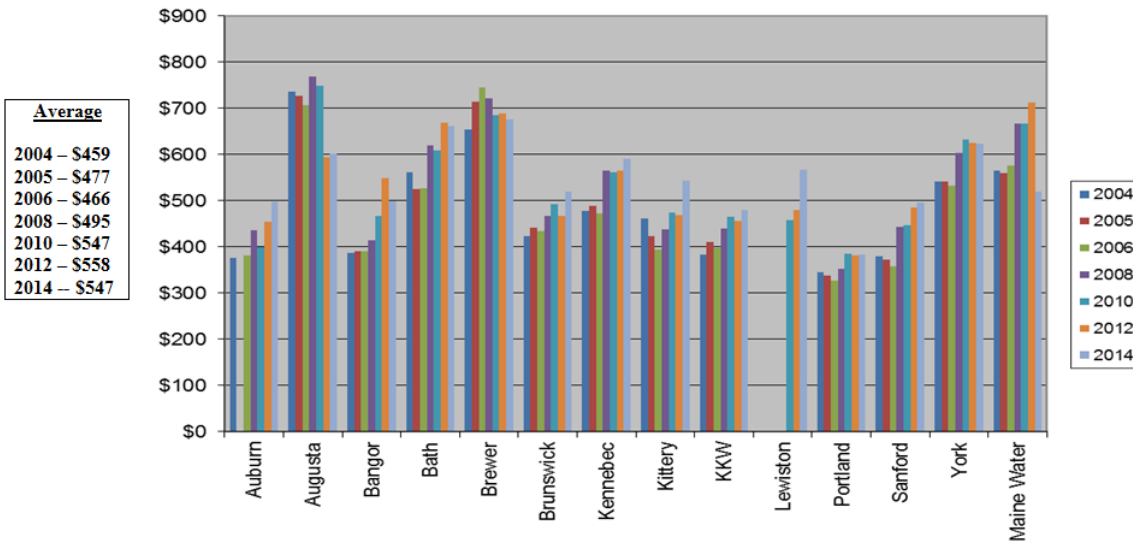
The District participates in a survey of Maine water utilities. Two selected items surveyed are average customer revenue per thousand and debt per capita.

#### 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*

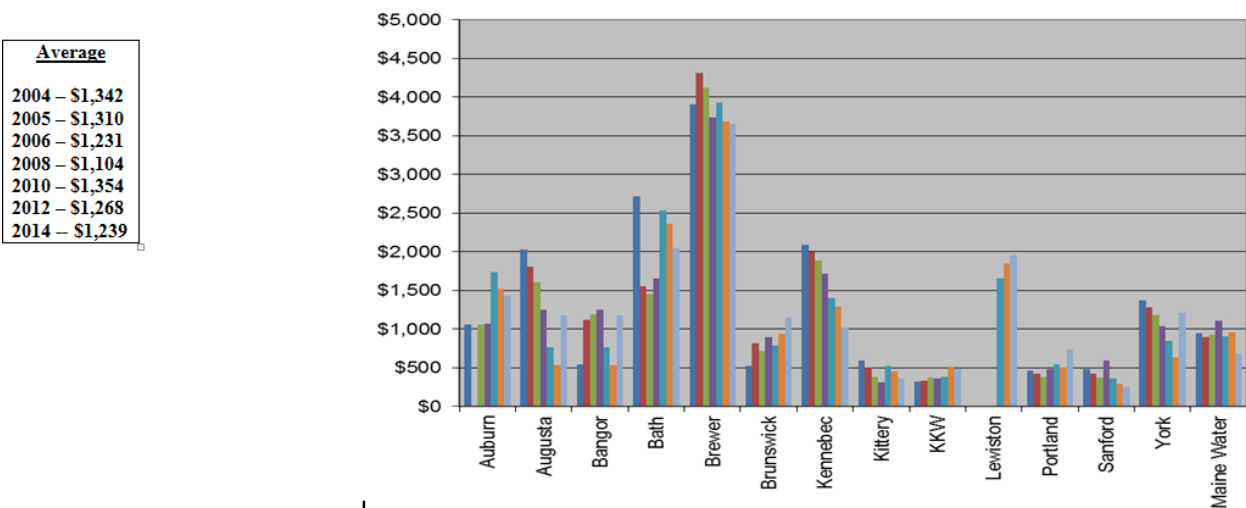


District's average revenue collected per customer is lower than other utilities indicating the relative efficiency of the District's operation.

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.

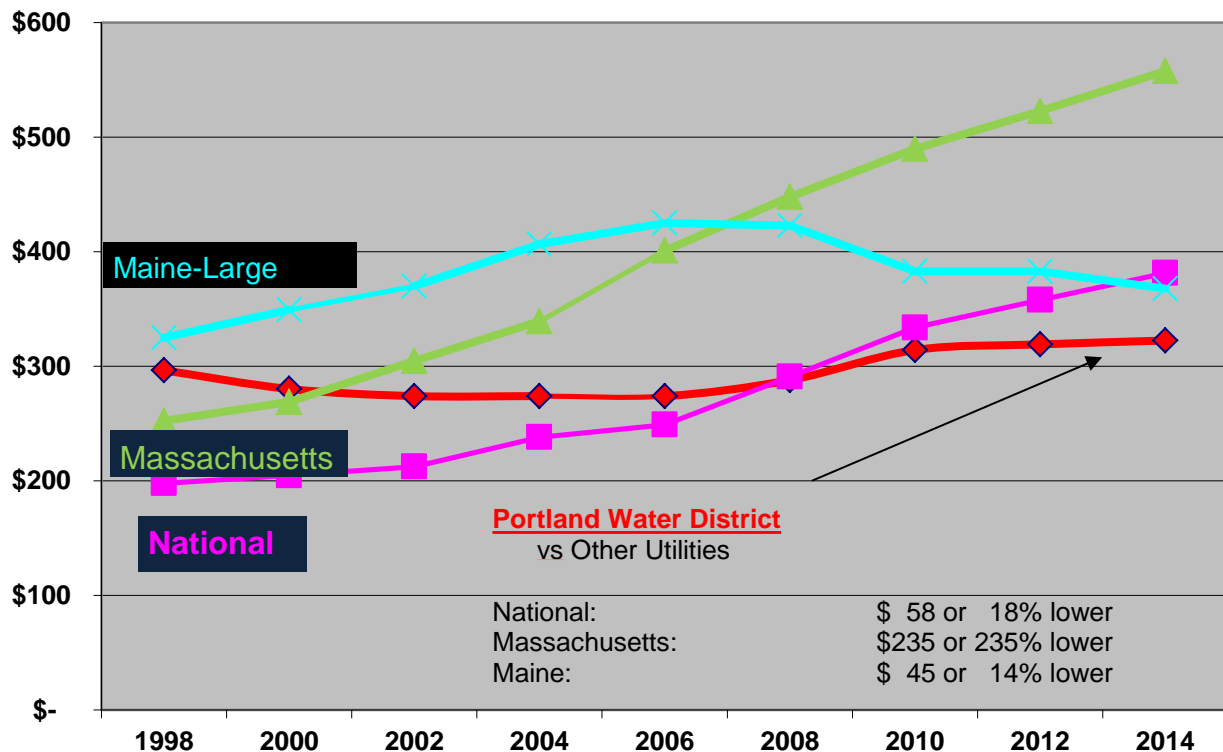
## Water Benchmark Data (continued)

### 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.

	<u>Maine Median Income (MSHA) 2004-2012</u>				<u>Water Revenue as % of Annual Median Household Income</u>			
	<u>2008</u>	<u>2010</u>	<u>2012</u>	<u>2014</u>	<u>2008</u>	<u>2010</u>	<u>2012</u>	<u>2014</u>
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%
<b>Averages</b>	<b>\$48,405</b>	<b>\$47,828</b>	<b>\$51,148</b>	<b>\$51,168</b>	<b>0.96%</b>	<b>0.99%</b>	<b>0.94%</b>	<b>0.87%</b>

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 3.74% to \$352. Even after the increase, rates will have only increased 18.9% since 1998, which is an average increase of 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, 2015 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 a 5/8" Meter, Based on Daily Usage of 60 gallons Per Person**  
Usage is Rounded to nearest hundred cubic feet (hcf). 1 HCF = 748 gallons. This is not a complete list of rates.

WATER RATES				SEWER RATES						
Effective Date		05/01/15		07/05/15	09/01/15	07/01/15	03/01/15	01/01/13	04/01/2009	11/01/06
# OF PEOPLE	GALLONS = HCF	MEMBERS	NON-MEMBERS	PORTLAND	CUMBERLAND	SOUTH PORTLAND	CAPE ELIZABETH	WESTBROOK	WINDHAM	GORHAM
1	1,800= 2	10.93	12.58	19.40	46.16	9.60	53.57	17.26	48.84	20.03
2	3,600= 5	17.50	20.17	48.50	62.03	24.00	70.28	35.65	48.84	38.90
3	5,400= 7	21.88	25.23	67.90	72.61	33.60	81.42	47.91	55.32	51.48
4	7,200=10	28.45	32.82	97.00	88.48	48.00	98.13	66.30	65.04	70.35
5	9,000=12	32.83	37.88	116.40	99.06	57.60	109.27	78.56	71.52	82.93
6	10,800=14	37.21	42.94	135.80	109.64	67.20	120.41	90.82	78.00	95.51
7	12,600=17	43.78	50.53	164.90	125.51	81.60	137.12	109.21	87.72	114.38
8	14,400=19	48.16	55.59	184.30	136.09	91.20	148.26	121.47	94.20	126.96
9	16,200=22	54.73	63.18	213.40	151.96	105.60	164.97	139.86	103.92	145.83

WATER RATES	Minimum includes 1 HCF	2-30 HCF	31-100 HCF	Lifeline Water Rate (Reduction in Monthly Minimum Charge)	Minimum includes 1 hcf
MEMBERS	8.74 *	2.19 **	1.81 **	MEMBERS	2.19 *
NON-MEMBERS	10.05 *	2.53 **	2.08 **	NON-MEMBERS	2.53 *

SEWER RATES	MIN HCF	MIN CHARGE	ADDITIONAL HCF
PORTLAND	1	9.70	9.70
CUMBERLAND	0	35.58	5.29
SOUTH PORTLAND	1	4.80	4.80
CAPE ELIZABETH	1	48.00	5.57
WESTBROOK	1	11.13	6.13
GORHAM	1	13.74	6.29
SOUTH WINDHAM	5 hcf per unit	48.84	3.24
FALMOUTH	RATE PER LIVING UNIT	Commercial Fixtures >17	Schools
	\$37.27 x # of Units (Residential)	(\$37.27 x # of units) + \$37.27 + (# fixtures - 17 fixtures x \$1.76) (Com'l combination of fixtures and units)	\$34.95 for every 15 students (Schools)

Municipal Contacts for Sewer	
Brad Roland	874-8460
Pam Bosarge	829-2207
Colleen Mitchell	767-7675
Mike McGovern	799-5251
Eric Dudley	854-9105 ext 222
Freeman Abbott	222-1608
Laurie Nordfors	222-1675
Anthony Plante	892-1907
Diane Moore	781-4462

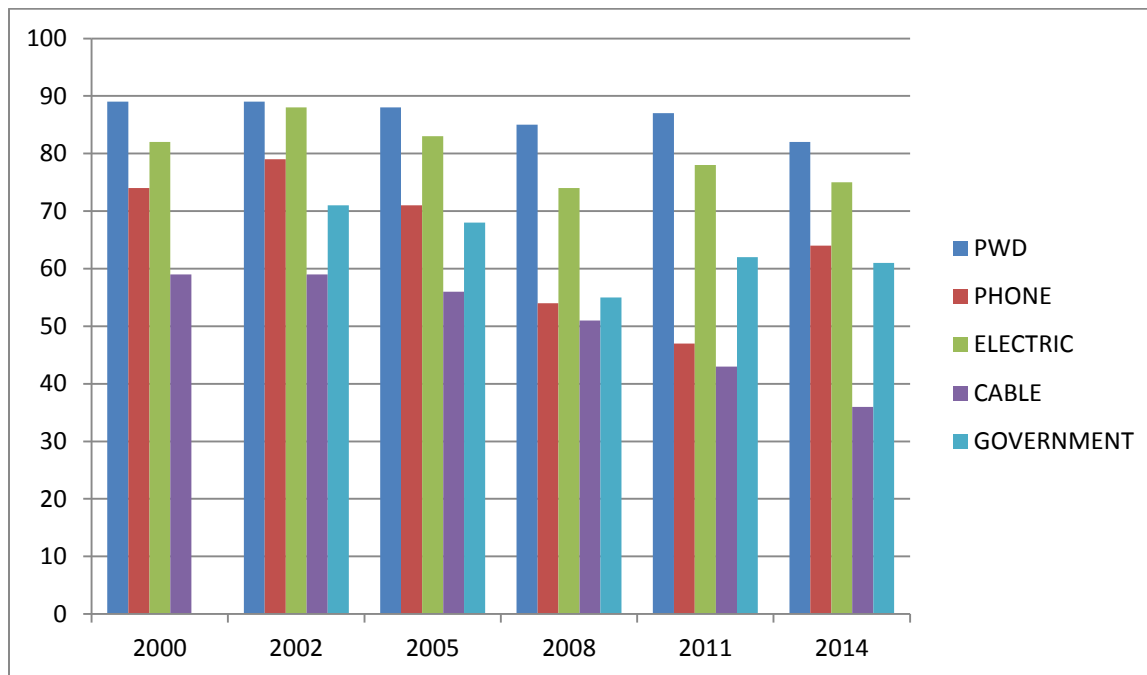
**Note: These are the most common sewer rates, but this is not a complete list.**

## Customer Satisfaction Survey

A periodic customer satisfaction survey is conducted. The last survey was conducted in 2014. A summary of the results are 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 23, 2015

Subject: Proposed Budget Orders

Presented By: Ronald Miller

The Administration and Finance, Operations and Planning Committees reviewed the 2016 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 2016 budget and authorizes billing the municipalities for wastewater and billing services.

#### **Order 15-030**

ORDERED that the 2016 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 2016 the participating municipalities for wastewater related costs as follows:

Town of Cape Elizabeth	\$ 1,443,408
Town of Cumberland	750,072
Town of Gorham	1,106,148
City of Portland	11,308,740
City of Westbrook	2,533,176
Town of Windham	351,756

and to assess non-participating municipal corporations for billing-related costs as follows:

Town of Falmouth	\$ 15,012
City of South Portland	192,384
Scarborough Sanitary District	10,824

The motion accepts the proposed capital improvement plan and authorizes staff to implement the 2014 projects within the restrictions stated below and in compliance with the purchasing policy guidelines.

**Order 15-031**

ORDERED that the 2016 – 2020 Capital Improvement Plan is hereby adopted and the General Manager is authorized to solicit bids or proposals for the year 2016 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 2016 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

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State law requires water revenue be committed to the treasurer to allow property liens be executed on delinquent water rate payers.

**Order 15-032**

ORDERED that all water charges for the Fiscal Year 2016 are hereby committed to the Treasurer of the Portland Water District for collection in support of the appropriations for the Water Fund.

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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 15-033**

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 3.73% for further Board consideration.

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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 15-014 to 15-020** 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 15-014**

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 15-015**

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 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 15-016**

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 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 15-017**

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 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 15-018**

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 2016 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 15-019**

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Westbrook wastewater funds' projects identified in the 2016 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 15-020**

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 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.

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**Resolution 15-014**

**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 \$11,613,000.
2. **General Description of Property to which Reimbursement Relates.** The following is a reasonably accurate general functional description of the type and use of the property with respect to which reimbursements will be made:
  - Construction or installation of new water mains, valves, hydrants, services and meters;
  - Acquisition of vehicles, leak detection and related equipment;
  - Renovation of various water facilities;
  - Acquisition and installation of various computer-related equipment; 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 15-015**

**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 \$535,000.
2. **General Description of Property to which Reimbursement Relates.** The following is a reasonably accurate general functional description of the type and use of the property located in the Town of Cape Elizabeth with respect to which reimbursements will be made:
  - Replacement of obsolete assets or installation of new equipment at various pump stations, including Maiden Cove, Broad Cove South and Stonegate pump stations,
  - Replacement of force main near Peabbles Cove pump station, and
  - Replacement or installation of equipment at the treatment plant, including projects related to the clarifier, aeration and ultraviolet treatment 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 15-016**

**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 \$115,000.
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 Long Meadow 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 15-017**

**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 \$398,000.
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:
  - Replacement of equipment at Canterbury Pines pump station, 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 sludge dewatering 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 15-018**

**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 \$740,000.
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 security system, second clarifier and activated sludge system; and
  - Renovation and repair of equipment and facilities at the Peaks Island Treatment Plant, including projects related replacing the influent screens; and
  - Replacement of equipment and roof at various pump stations, including Fore River and Northeast Pump Stations; and
  - Upgrading the combined sewer overflow meter system, and
  - Installation of SCADA/Process control system upgrades at East End and Peaks Island treatment plants.
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 15-019**

**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 \$ 894,000.

**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:

- Installation of flow meter, and
- Replacement of equipment at Dana Court pump station, and
- Renovation and repair of equipment and facilities at the Westbrook Regional Treatment Plant, including projects related to sludge dewatering 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 15-020**

**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 \$ 76,000.

**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 Androscoggin pump station, and
- Renovation and repair of equipment and facilities at the Westbrook Regional Treatment Plant, including projects related to sludge dewatering 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
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 Departments
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).
BMP's	Best Management Practices

## 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.
CSWWTF	Cape South 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.
CWA	Clean Water Act
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.
Fund	An independent fiscal and accounting entity with a self-balancing set of accounts recording cash and /or other resources together with all related liabilities, obligations, reserves, and equities which are segregated for the purpose of carrying on specific activities or attaining certain objectives.
Generally Accepted Accounting Principal (GAAP)	Uniform minimum standards of, and guidelines for, external financial and reporting. They govern the form and content of basic financial statements of an entity. GAAP encompasses the conventions, rules and procedures necessary to define accepted accounting practice at a particular time. The primary authoritative statements on the application of GAAP to local governments are Government Accounting Standards Board pronouncements (GASB).
HCF	Hundred Cubic Feet- the standard measure used for billing water usage, 1 HCF is equal to 748 gallons of water, 1 cubic foot of water is equal to 7.48 gallons.
Industrial Pretreatment Program	A program responsible for permitting and monitoring industrial sewer customers who discharge significant quantities of non-domestic wastewater to the collection system to ensure their activities do not impact our operation or the receiving waters.

## Glossary/Acronyms

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.
ISO	Insurance Service Office
IVR	Interactive Voice Response
Jobbing Revenue	Revenue for work performed by District employees which is billable to outside parties.
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.
Project WET	Water Education for Teachers program
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
Quasi-municipality	Independent government entity as defined by state law. It has many of the responsibilities and rights of a typical governmental entity.

## Glossary/Acronyms

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.
TIF	Tax Increment Finance - a designated municipal fund established to fund structural improvements
TPS Pumping	Thickened Primary Sludge pumping

## Glossary/Acronyms

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.
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)
WWTF	Wastewater Treatment Facility