

Portland Water District



Administrative Office
225 Douglass Street
Portland, ME 04101

Board of Trustees

William M. Lunt III
President
Representing Cumberland/Falmouth

Guy H. Cote Jr.
Vice President
Representing Westbrook

Matthew Beck
Cape Elizabeth/South Portland

Louise G. Douglas
Raymond/Windham

Seth Garrison
Scarborough

Thomas Grant
Gorham

Kenneth L. Levinsky
Portland

Gary W. Libby
Portland

Joseph Siviski
Cape Elizabeth/South Portland

Jamie Willey
Portland

Carrie Lewis
General Manager

David M. Kane
Treasurer

Portland Water District Budget – Reader’s Guide

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

How does the budget impact my water bill?

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

How does it affect my municipalities’ sewer budget?

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

How does the District spend its money?

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

How can I participate in the process?

PWD members and the public at large are encouraged to join any of the Board meetings held on the 2nd and 4th Monday of every month. The Board will review the proposed budget at the November 27st 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 2018?

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

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

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

Table of Contents

Preface

Portland Water District Budget Reader's Guide.....	2
Overview of the Water and Wastewater System	6
Letter from the General Manager.....	7

Introduction

Introduction and Service Territory.....	11
History.....	12
Top Reasons to Choose Portland, Maine Now.....	13
Portland Economic Scorecard.....	14
The Regulatory Environment in Which We Function.....	15
Water Rate Change Process.....	16
Organization Structure.....	18
Annual Planning and Budget Process.....	19
Planning/Budget Process Calendar.....	20
Mission Statement.....	21
Strategic Goals.....	22
Board Established Guidelines.....	28
Employees Suggested Action Items.....	30
External Factors Impacting the Budget.....	32
Significant Budget Uncertainties.....	33
Major Policy and Resource Allocation Decisions.....	34
Operating Budget Summary.....	36
Capital Budget Summary.....	37
Combined Water and Wastewater Operating Funds.....	38
Combined Operating, Capital and Grant Funds.....	39
GFOA Budget Presentation Award.....	40

Budget by Fund

Introduction.....	41
Water Fund.....	42
Cape Elizabeth Wastewater Fund.....	52
Cumberland Wastewater Fund.....	62
Gorham Wastewater Fund.....	72
Portland Wastewater Fund.....	82
Westbrook Wastewater Fund.....	94
Windham Wastewater Fund.....	106
Falmouth Assessment and Contracted Billing Services.....	116
Operating Budget by Fund Summary.....	118

Revenue

Introduction.....	119
Water Sales.....	120
Water Sales Cost of Service Study.....	121
Water Sales Metered Revenue.....	120

Revenue (continued)

Water Sales Metered Revenue, Consumption.....	123
Water Sales Metered Revenue, Rates.....	129
Water Sales Non-Metered Revenue.....	131
Water Sales Long-Term Considerations.....	132
Wastewater Assessment & Contracted Billing Income.....	134
Wastewater Assessments Revenue Trend.....	135
Current Municipal Wastewater Rates.....	136
Interest Income.....	137
Other Income.....	138
Projections for Rate-Making Purposes.....	139
Fund Balance.....	140

Departmental Expense

Introduction and Financial Summary by Category and Department.....	141
Departmental Expense by Category.....	142
Salaries/Wages.....	142
Employee Benefits and Biosolids Disposal.....	143
Chemicals.....	144
Contracted Services.....	145
Deferred Cost Write-off.....	146
Heat/Fuel Oil and Insurance.....	147
Materials & Supplies.....	148
Other Expense.....	149
Purchased Power.....	150
Regulatory/Taxes and Telephone/Other Utilities and Transportation.....	151
Departmental Expense by Department.....	152
Water Services.....	152
Wastewater Services.....	172
Environmental Services.....	190
Engineering Services.....	209
Administrative Services.....	222
Non-Departmental.....	241
Community Connections.....	242

Human Resources

Introduction.....	243
Salary Costs.....	244
Labor Hours/Average Pay Rates.....	245
Employee Benefits.....	246
Authorized Head Count.....	249
Non-Union Positions.....	250
Union Positions.....	251
Temporary and Non-Benefit Employees.....	252
Work Force Management.....	254
Employee Recognition.....	258

Capital Finance

Introduction and Annual Fund Operating Budget.....	259
Bond Financing.....	260
Water and Wastewater Funds Debt Service.....	263
Debt Service Summary.....	264
Water Debt.....	266
Water and Wastewater Debt.....	270
Capital Reserve.....	273
Renewal & Replacement.....	274
Water Fund – Renewal and Replacement Fund.....	275
Wastewater Fund – Renewal and Replacement Fund.....	276

Capital Expenditures

Introduction.....	277
Capital Improvement Program Process.....	278
Infrastructure and Operational Evaluation Plans.....	279
Program Summary and Board of Trustee Orders.....	291
Program Summary	292
Fund Summary.....	294
Financing Summary.....	296
Priority Summary Report – Non-Routine.....	298
Priority Summary Report – Routine.....	299
Subprograms with Pending Unscheduled Work.....	300
CIP Operating Fund Summary Impact.....	301
Capital Improvement Program – Five Year Plan.....	304
Current Year CIP Progress Report.....	306
Subprogram Details.....	308

Financial Policies

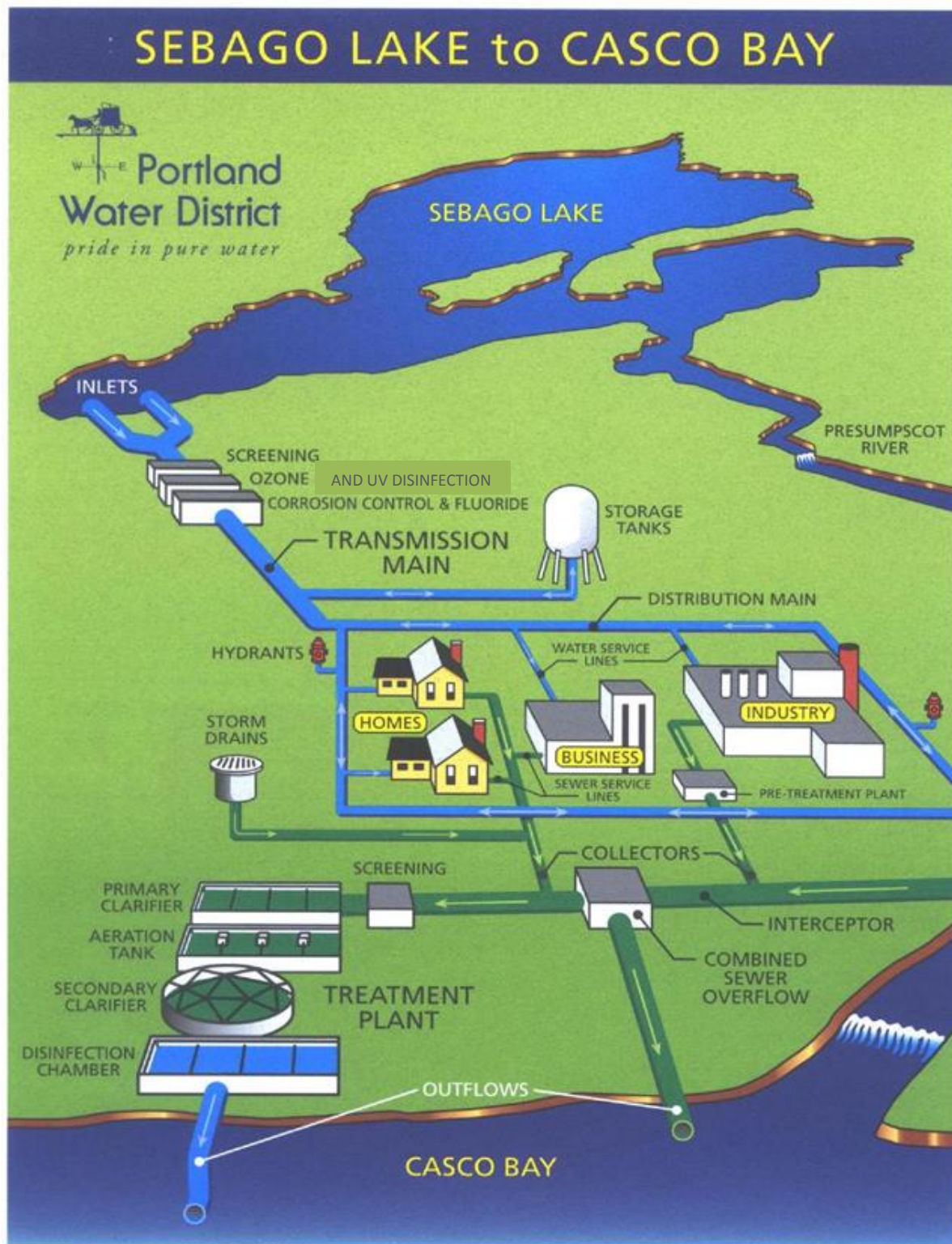
Introduction.....	363
Significant Financial Policies.....	363
Cost Allocation Policy Detail.....	369
Defined Pension Plan’s Funding Policy.....	382

Appendix

Introduction.....	383
Portland Economic Scorecard.....	384
Water Benchmark Data.....	389
Portland Water District Rate Sheet Summary.....	391
Customer Satisfaction Survey Results.....	392
Board of Trustees Orders and Resolutions.....	393
Glossary/Acronyms.....	401

Overview of the Water and Wastewater System

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





Carrie Lewis

General Manager

Portland Water District

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

October 23, 2017

To the members of the Board of Trustees,

On behalf of the entire Management Team, we are pleased to submit for your consideration the Portland Water District's Comprehensive Annual Budget Proposal for 2018. 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 110th year, please reflect on our accomplishments, present challenges and opportunities, and future aspirations. Our dedicated full-time staff of 182 employees works every day to ensure tap water is delivered to the 210,000 inhabitants of Greater Portland, to provide adequate water for fire protection, and to treat wastewater to remove pollution and protect 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 2018 budget includes an Environmental Services staff of eight with an operating budget of more than \$1.1 million 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 2018 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 ozone and ultraviolet treatment processes to comply with Environmental Protection Agency's enhanced rules. Over 20 million gallons of water are treated each day. The 2018 budget includes debt service payments for the 2014 treatment system upgrade of almost \$900,000; which is 4% of the total water fund budget.

Water Operations

Water is distributed through a system of 1,000 miles of water mains, three major pump stations, and ten storage facilities. Infrastructure age, cold winter temperatures, and the underground location of many of our assets challenge staff to operate and maintain the system with minimal disruption. Since 2010, we have invested over \$36 million in water main renewal. The proposed budget commits an additional \$7.0 million to replace aging water main infrastructure. That commitment has reduced main breaks to about 100 per year or 45% from its peak in 1987, and continues to address the miles of mains reaching the end of their useful life.

Wastewater Operations

The District's wastewater staff manages a collection system consisting of 118 miles of pipe and 76 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 include the recently completed \$12 million aeration system upgrade at the Portland Wastewater Treatment Plant, the construction of the \$1 million sludge dewatering system upgrade at the Westbrook Regional Wastewater Treatment Plant and \$2 million renovation of the Dana Court Pump Station in Westbrook to be completed in 2018.

In addition to addressing aging infrastructure, wastewater staff will support Cape Elizabeth, Portland and Westbrook in reducing combined sewer overflows in their communities. A nutrient optimization approach will be implemented to manage nitrogen at the East End Plant. At the request of the City of Portland, the Environmental Services group will add Portland to its Industrial Pretreatment (IPT) program.

Support Services

Supporting the Environmental, Water and Wastewater Service departments are the Engineering, Administrative Services and Employee Services departments. Those departments provide engineering, computer system, financial, employee relations and customer services. In 2018, these departments will be addressing:

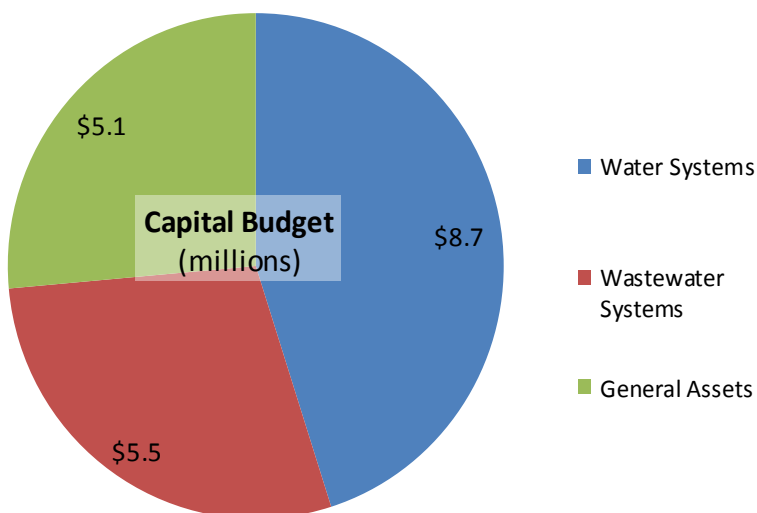
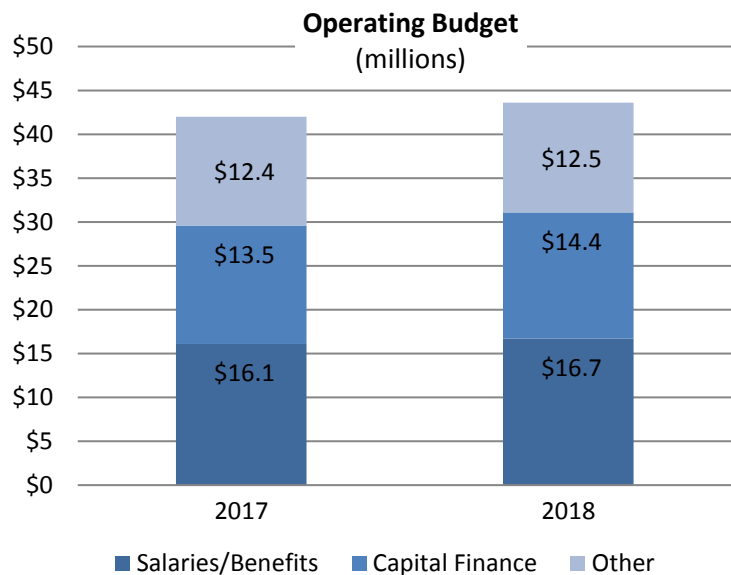
- **Administrative Services:** Implementing the new Asset Management, Billing and Customer Service (ABC) system, continued improvement of information technology systems, and financial planning and transaction tracking,
- **Infrastructure Assets:** PWD has adopted an asset management philosophy and has developed the data systems to support it. In 2018, the focus will be on transferring data and workflows into the ABC system and improving the data we have on a wastewater plants and pump stations,
- **Employee Services:** Improving recruiting and retaining quality employees through review of compensation and benefits and updating of policies and procedures, and
- **Public Relations:** Continuing to provide our customers with an understanding of the benefits of a well-maintained system that delivers quality water to their homes and treats their wastewater 24/7 is important. Efforts will continue in 2018 with the 'value of water' campaign and water bottle water filling station grant program.

Financial Overview

The proposed budget for 2018 recommends \$43.6 million for operations and \$19.3 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 (33%) and all other materials and services (29%). Salaries reflects the addition of four new employees, the first increase in headcount in 8 years, and a wage adjustment of 3.0% (\$450,000). Benefit costs increased due to health insurance premium increases and were partially offset by lower pension costs (\$110,000). Capital financing costs are \$900,000 higher primarily due to debt service on bonds issued to finance water main renewals and upgrades in the 407 Zone. Total other expenses increased \$160,000, or 1.3%, from the prior year.

The significant changes in specific other expense line items include:

- Higher contracted services (\$177,000) due to additional costs related to paving, legal and engineering services,
- Lower electricity costs (\$57,000) reflecting a decline in Central Maine Power delivery charges partially offset by higher New England ISO electricity grid capacity charge, and
- Lower transportation costs (\$77,000) reflecting the decline in fuel prices.



The \$8.7 million water capital budget includes \$7 million replacing aging water mains.

The \$5.5 million wastewater capital budget includes \$2.7 million of upgrades at Portland's East End and Cape Elizabeth's treatment plants

Additionally, an investment in a new asset, billing and customer relation software (\$3.8 million) is the most significant general asset project in 2018.

BUDGET HIGHLIGHTS		
NEW INITIATIVES Investing \$7.0 million in water main renewal; including \$2.0 million through capital reserve fund. Implementing a new Asset Management, Billing and Customer Relations computer system (\$4.0 million). Upgrades to the Portland's East End and Cape Elizabeth Wastewater Treatment Plants (\$2.7 million) and completion of the Westbrook's Dana Court Pump Station (\$2.2 million) project Operating the Industrial Pretreatment Program for the City of Portland	BUDGET SUMMARY The Operating Budget is proposed to be \$43.6 million, an increase of \$1.6 million or 3.8%. Total Revenues are projected at \$3.8 million, which assumes a 3.8% water rate increase and wastewater assessments that meet the municipalities' expectations. The Capital Budget is proposed at \$19.3 million. It continues commitment to invest in water mains and wastewater facilities renovations. Full-time Positions increase to 182, an increase of 4. 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.	CHALLENGES AND ISSUES Higher regulatory standards demand a level of effort to monitor drinking water quality. Nutrient optimization approach to manage nitrogen at wastewater facilities Aging infrastructure requires asset replacement. Recruiting and retaining new employees and training existing to adjust to needed workforce skills Stronger regional economic growth should in time improve revenue growth from new customers.

Customer Impact

The proposed budget assumes a 3.8% rate adjustment effective May 1, 2018. The increase is consistent with the Board's intent to adopt small water rate adjustments annually. For a typical customer, the impact is \$9.48 a year or \$0.79 a month. Of the 3.8% rate adjustment, 2.8% will be used for general operation and 1% will be dedicated to fund the capital reserve account that will support a \$2 million bond issue dedicated to main renewal replacements.

Assessments to wastewater communities meet or are lower than municipal expectations. Assessments for Gorham, Westbrook and Windham remain the same as last year. Cape Elizabeth's, Cumberland's, Falmouth's, and Portland's assessments increase by 4.8%, 7.2%, 17.6% and 3.4%, respectively.

The 2018 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 meets the municipal expectations,
- Water rates are affordable and sufficient to meet operational needs,
- Full-time positions are optimized to meet the workload, and
- Investment in our infrastructure continues as planned.

Carrie Lewis
General Manager

David M. Kane
Treasurer

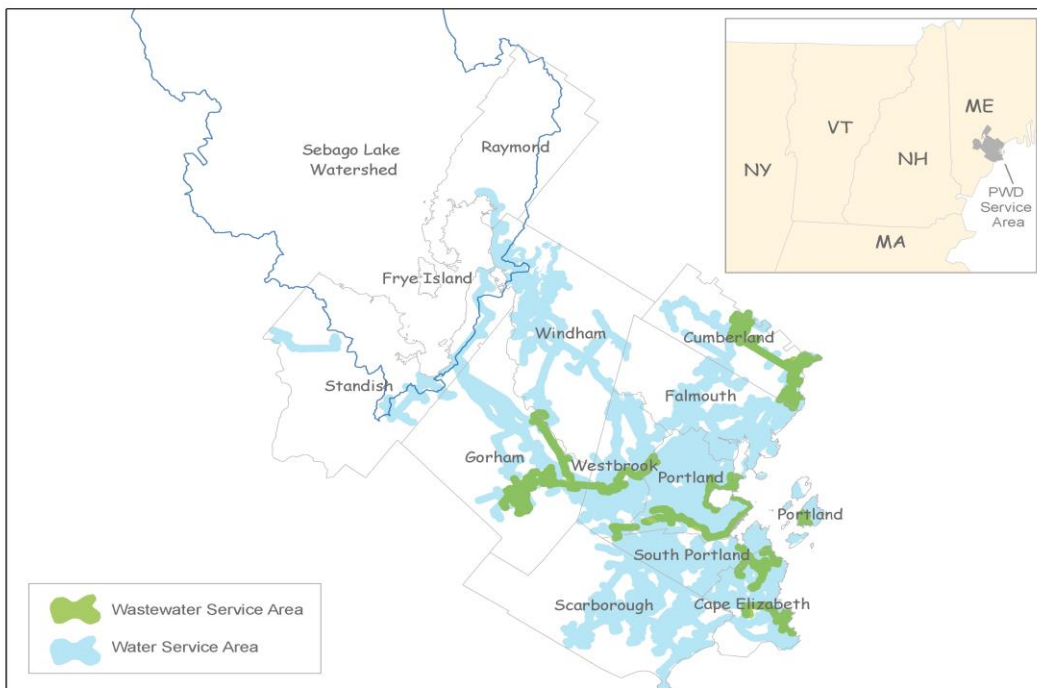
Introduction

The Portland Water District (PWD) is a quasi-municipal utility authorized by state charter to provide water service to eleven Greater Portland communities and wastewater treatment and interception services to six of those communities. Water service is provided to 54,800 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 2,100 sprinkler systems. PWD provides additional wastewater-related services through contracts with the communities. Additional services include sewer billing and collector/storm drain system operations.

Summary of Wastewater Services Provided:

Community	By Charter:			By Contract:		
	Customers	Treatment	Interceptors	Collectors	Storm Drains	Billing
Cape Elizabeth	2,351	Yes	Yes	No	No	Yes
Cumberland	1,167	No	Yes	Yes	No	Yes
Falmouth	1,914	No	No	No	No	Yes
Gorham	1,804	Yes	Yes	Yes	No	Yes
Portland	17,081	Yes	Yes	Peaks Island (only)	Peaks Island (only)	Yes
Scarborough	405	No	No	No	No	Yes
South Portland	7,829	No	No	No	No	Yes
Westbrook	4,556	Yes	Yes	No	No	Yes
Windham	56	Yes	Yes	Yes	No	Yes

Service Territory



History

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

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

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

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

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

The decade starting in 2000 also witnessed the aging of PWD's wastewater treatment facilities and an increased emphasis on odor control. 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 of years being the aerations systems. The East End project was completed in 2017. The proposed capital improvement plan includes a \$7.9 million Westbrook/Gorham/Windham upgrade in 2020.

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

A focus on aging water mains began in 2011 when the Board committed to double the main renewal budget by 2016. In 2014, the Board established a capital reserve fund to provide an additional \$2 million available for main renewal. A \$7.0 million investment in water main replacement is budgeted for 2018. Also, new regulations required a second water treatment process be installed. In 2014, an ultraviolet process was added along the existing ozonation process.

Top Reasons to Choose Portland, Maine Now

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

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

Portland: Yes. Life's good here.™

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

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

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

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

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

Concerned About the Environment

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

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

Great Place to Visit

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

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

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

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

Economic Hub of Maine

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

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

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

Portland Economic Scorecard 2015

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

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

The Regulatory Environment in Which We Function

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

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

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

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

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

In addition to the environmental regulations which govern the District's operations, the District's water business is also regulated by the state Public Utilities Commission and a system of Maine law found in title 35-A of the Maine Revised Statutes, designed to regulate the District's standards of service and water rates. Historically, the Public Utilities Commission regulates the District's water business operations through review and approval of the District's Terms and Conditions of Service, and establishes the rates the District charges for its water services. State law and regulations enacted by the Commission also regulate service standards for water utilities, as well as standards for construction, water main extensions and service lines. In 2014, the state legislature passed a bill, An Act to Reform the Regulation of Consumer-owned Water utilities (2014 P.L. 2014 chapter 573) which authorized the Commission to grant exemptions of certain portions of Title 35-A. The District filed an exemption requests from certain regulation, including the requirement of having the Commission approve water

The Regulatory Environment in Which We Function (continued)

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

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

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

Water Rate Change Process

In 2018, the District's Board of Trustees will consider a 3.8% rate adjustment. The chart on the next page outlines the process the District will follow in 2018. The District will continue the same Board and public review process and does not require Maine Public Utilities Commission approval.

A Public Utilities Commission rule (chapter 675) allowed for the creation of a capital reserve fund starting in 2014. The fund can be used to pay costs related to water infrastructure. For utilities our size, an additional 10% over other costs may be included in justifying proposed water rates. A system infrastructure assessment (SIA) must be submitted prior to getting approval to fund the reserve. The SIA would include the list of infrastructure projects that will be funded from the reserve. Annual updates of the status of the projects and reserve fund balances are required. The District filed the SIA in October 2013 and has incorporated funding the reserve by designating 1% of the proposed 3.8% rate adjustment for the reserve.

Act to Reform Regulation of Consumer-Owned Water Utilities

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

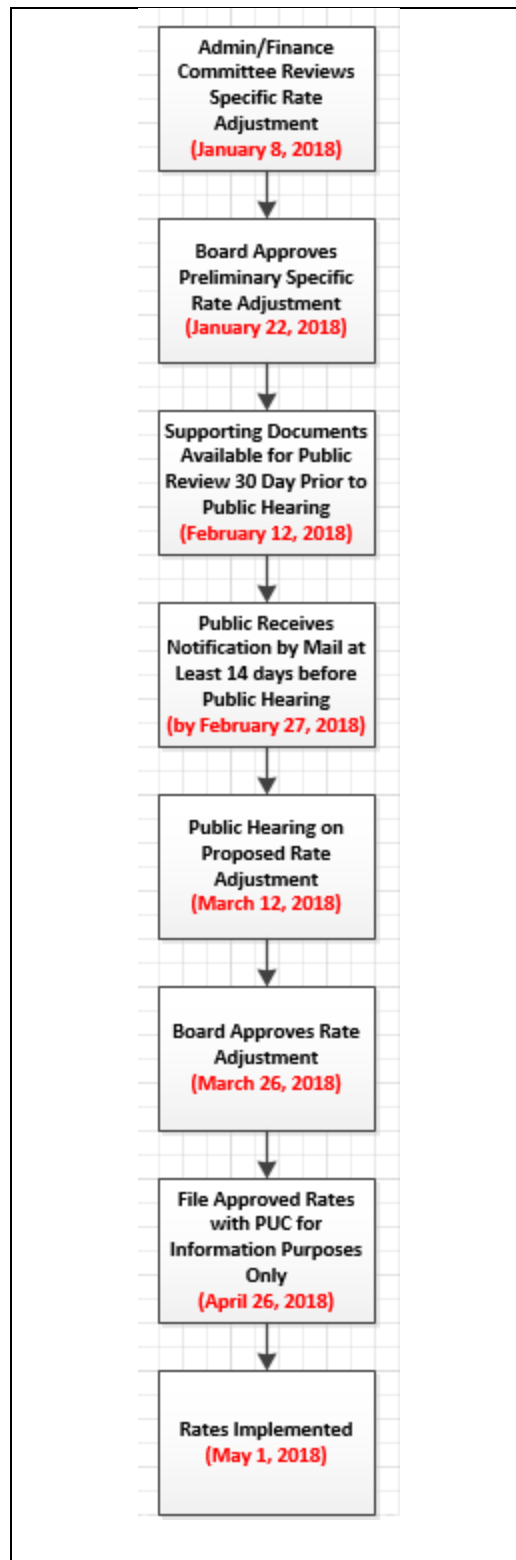
The District filed for exemptions from certain state regulations and the ability to implement local review and rules.

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

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

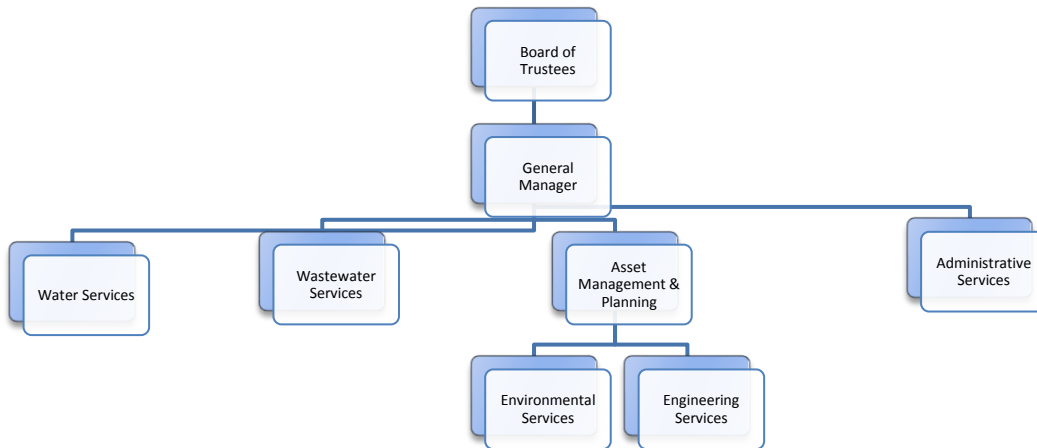
The Regulatory Environment in Which We Function (continued)

Rate Case Process

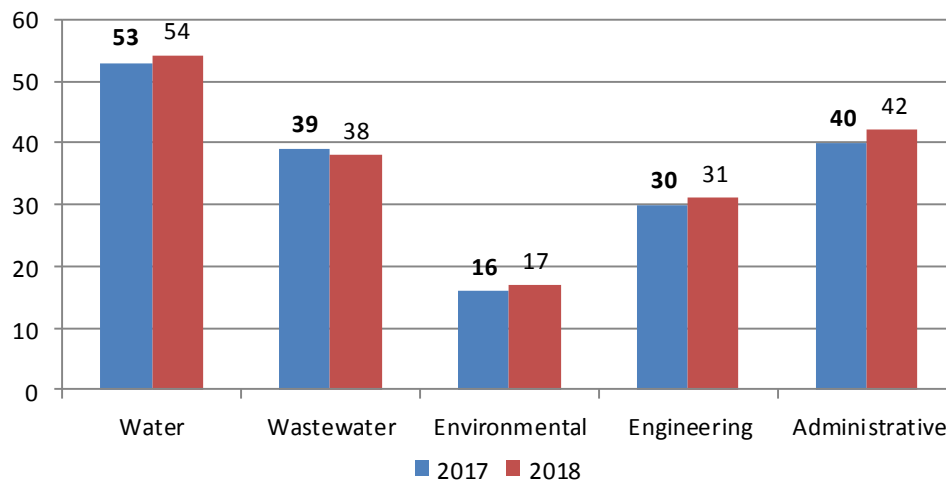


Organization Structure

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



Authorized Number of Employees



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

A more detailed organization chart and description of services provided are provided in the Operating Expense section. The Human Resource section provides more details on the proposed number of employees and 2018 changes.

Annual Planning/Budget Process

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

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

Planning/Budget Process Calendar

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

May

1 Senior Management Team reviews budget process and timeline; stakeholders input; and external factors impact impacting budget, major policy and resource allocation issues; significant budget uncertainties; and long-term and short-term goals.

22-26 Senior Managers host meetings with Department Managers to review budget parameters and process

June

16 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

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

Aug

14-18 Department Managers present second draft Operating and Capital budget to the Senior Management Team.

Sep

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

Oct

23 Budget is presented to the Board of Trustees.

Nov

13 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.

27 Board considers adopting budget.

Board Committees' Department Review Responsibility

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

Operations – Water Services and Wastewater Services

Planning – Environmental Services and Engineering Services

Wastewater Communities: The proposed Wastewater Assessment to each municipality is presented and reviewed with each municipality at meetings scheduled between October 24 and November 14. By January 15, 2018, the District notifies the municipality of the certified assessment amount.

Mission Statement

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

Goal 1 - Public Health:

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

Goal 2 - Public Safety:

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

Goal 3 - Environment:

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

Goal 4 - Reliability:

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

Goal 5 - Affordability:

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

Goal 6 - Employees and Work Environment:

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

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

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

Strategic Goals

Strategic Goal 1: Public Health

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

Background

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

Strategic Benchmarks (updated periodically):

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

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

Current Status, Challenges and Impact to Current Budget:

A new pump station in the 407 zone (Windham and Gorham) will be constructed in 2018. Preliminary engineering will be completed on a new tank will be completed in 2018 with scheduled construction in 2019.

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

Strategic Goal 2: Safety

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

Background

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

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

Strategic Benchmarks (periodically by ISO):

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

Benchmarks:

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

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

Current Status, Challenges and Impact to Current Budget:

The Capital Improvement Plan includes funding to replace water mains and hydrants; including \$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. Annual inspection of all hydrants will be done and any inoperable hydrants will be fixed promptly.

Strategic Goal 3: Environment

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

Background

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

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

Strategic Benchmarks (updated every 5 years):

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

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

Current Status, Challenges and Impact to Current Budget:

Many of the non-compliance incidents occur during wet weather when the facilities cannot treat the volume of water resulting in untreated or less treated wastewater to be discharged to the watershed. In 2017, the focus in each system is as follows:

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

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

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

Strategic Goal 4: Reliability

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

Background

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

Strategic Benchmarks (updated every 5 years):

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

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

Current Status, Challenges and Impact to Current Budget:

The last formal customer satisfaction survey was completed and indicates satisfaction continues to be high with 87% of customers indicating they are satisfied are generally pleased with the level, quality and reliability of the water and wastewater services provided. We will continue investing in our 'value of water' campaign and explore offering additional self-help options including advance notification of certain events. An updated survey is scheduled for late 2017.

In 2018, the most significant water system project to increase reliability is the \$7.0 million investment in aging water mains, which will reduce main failures. Significant wastewater system projects/programs that will increase reliability include the renovating aging pump stations and continue implementation of monitoring devices throughout the system 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:					2013 vs 1998
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 3.8% effective May 1, 2018. Since 1998, water rates are below the long-term inflation rate. The proposed increase is consistent with the Board of Trustees' direction to have small incremental water rate increases annually. Increases are needed to meet the increasing capital costs to replace aging water mains, 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 2018 and 2017 for Gorham, Westbrook & Windham. Assessment increase in Portland (3.4%) is higher due to the capital financing costs related to upgrades at the Fore River pump station and East End Treatment Plant. Cumberland's assessment increase (7.2%) is slightly higher due to their request to upgrade the Mill Creek Pump Station for additional capacity as a result of economic growth. Cape Elizabeth's increase is 4.8% due to debt service on needed infrastructure upgrades.

Wastewater assessments have increased near or slightly above the rate of inflation (49%) 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 58%. To mitigate the upward pressure on assessments, the wastewater services area has reorganized its staff and continues to review processes and procedures to become more efficient.

Strategic Goal 6: Employees and Work Environment

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

Background

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

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

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

Strategic Benchmarks (updated every 5 years):

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

Current Status, Challenges and Impact to Current Budget:

In 2015, an employee satisfaction survey was conducted. The average score remained almost the same as the 2013 results with a score of 4.46 on a scale of 1 to 6. The survey was conducted using a web-based survey tool that provides confidentiality with minimal cost. Based on the survey results, three areas that will be focused on in the upcoming year are: inconsistent application of policies, fairness of decisions regarding promotion, and value of the employee evaluation process. As surveys have traditionally been conducted every other year, another employee survey will be done in 2017.

The current workers' compensation modification factor indicates that our injury rate is below average for our industry (last 10 years' average is 1.08; 2017 factor decreased to 0.73). We will continue our efforts to maintaining a rate below 1, which indicates an organization is average.

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

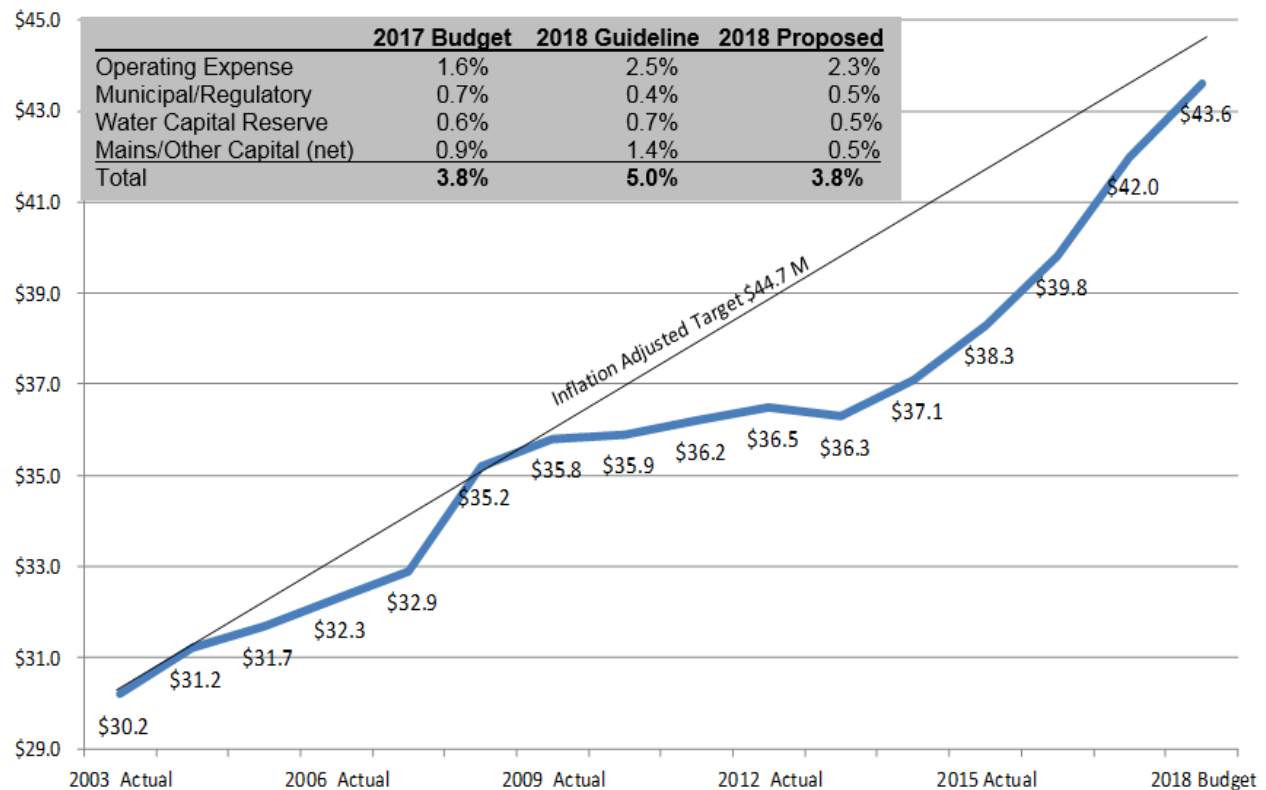
A review of our health and pension programs begin in 2017. We will continue to look for ways to change those programs to attract and retain employees.

Board Established Annual Budget Guidelines

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

<u>Guideline</u>	The Operating Funds' Budget will not increase more than the rate of inflation over the long-term. The annual target is rate of inflation plus any unfunded federal/state/local mandates and funding for water main renewal of up to 1% of water revenues. Assuming a 2.0% inflation rate for operation expenses plus expected capital related expense and one-time increases, the 2018 operating budget target increase was established to not to exceed 5.0%. The resulting budget target of \$43.6M would be \$1.1M less than the budget if it increased at the rate of inflation.
------------------	--

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 \$43.6 million, \$0.5 million better than Board guideline.**



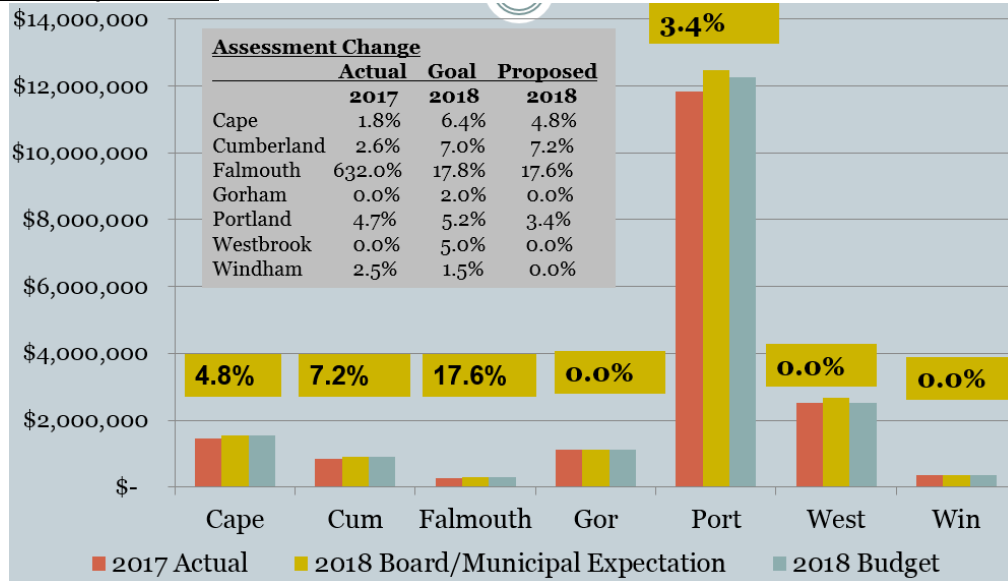
<u>Guideline</u>	Capital expenditures will be consistent with the levels recommended in the Water and Wastewater system plans.
------------------	---

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)

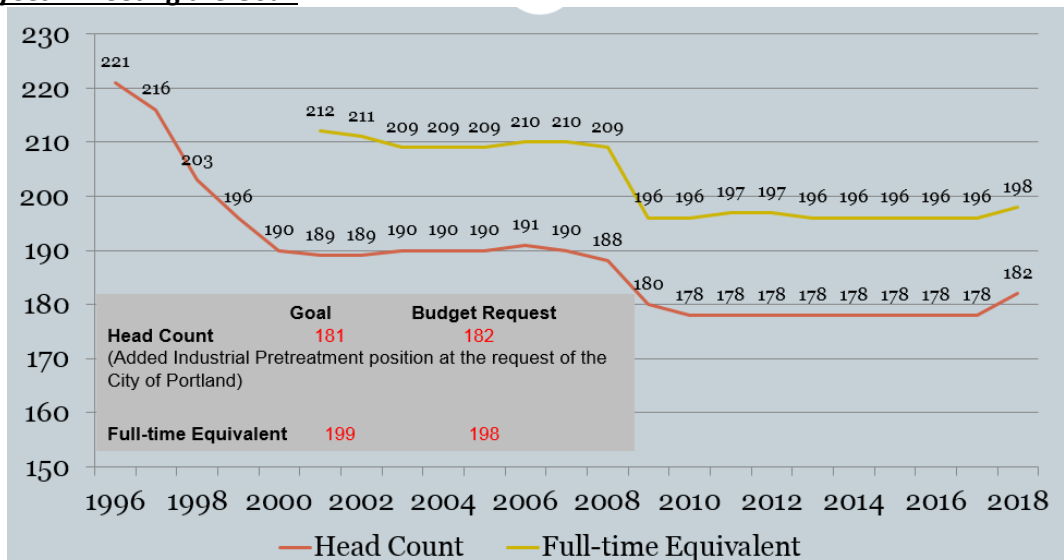
<u>Guideline</u>	Water Revenue Requirement and Wastewater Assessments increases will not exceed the rate of inflation excluding the impact of mutually agreed upon changes in services, capital investments, surplus fund utilization or Board's request to increase surplus balance.
------------------	--

All Wastewater assessments and Water Rates Increases meet or are below the Board of Trustees and Municipal expectations. Cumberland's assessment is \$1600 higher than originally goal but meets Cumberland's expectation.



<u>Guideline</u>	The number of employees will not exceed 182 and the - time equivalency (FTE) will not exceed 200.
------------------	---

Salary and benefits are one of the District's most significant costs. To control costs, a targeted headcount is established. **The proposed budget contains 182 employees and 198 full-time equivalent employees – meeting the Goal.**



Employees Suggested Action Items

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

Employee Suggestion	Department	2018 Budget Impact:
<u>Public Health/Safety</u>		
Purchase additional data logger	Water	Purchased in 2017, maintenance contract has minimal financial impact included in budget
Purchase trailer to haul mini-excavator	Water	Purchased in 2017, maintenance contract has minimal financial impact included in budget
Upgrade locators equipment	Water	Incorporated in 2018 budget, \$ 5,000
Hire an additional Utility Specialist	Water	Incorporated in 2018 budget, \$ 87,000
Ensure samples arrive at lab within required temperature	Wastewater	Process changed in 2017, with no impact to 2018 budget
Improve management of Wastewater system alarms	Wastewater	Transfer alarm monitoring to WW staff, no 2018 budget impact
Purchase garmin-type device for direction to facilities	Wastewater	Purchased in 2017, maintenance contract has minimal financial impact included in budget
Review winter plowing protocol to ensure area properly plowed	Engineering Services (Facilities)	Review for winter 2017-18. Minimal financial impact included in budget
Increase Service Associated Assets Committee efforts	Engineering Services	New Asset Management Technician included in the 2018 Budget
<u>Environment</u>		
Purchase more colorful rain barrels	Environmental Services	Will consider in 2018, no 2018 budget impact
Reduce the use of paper by moving Customer Service review process on-line	Administration	Began implementing in 2017. Estimated savings of \$800 included in the 2018 budget.

Employees Suggested Action Items (continued)

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

External Factors Impacting the Budget

Economy

The local economy has rebounded from the last national recession. State unemployment is 3.8% and has been under 4% for 23 months in a row – the second longest stretch in 30 years. The unemployment rate is better than the national unemployment rate of 4.9%. Cumberland County's unemployment rate is 2.5%, which is 0.2% better than last year.

Greater Portland's real estate market continues to thrive though total number of home sales are down 15%, however prices are up 20%. In the 2018 budget, the water consumption projection includes the same number of households as of June 30, 2017 and assumes no customer growth. A typical year's growth in new customers is 1.5% (750 accounts).

The sluggish national economic recovery continues to keep interest rates relatively lower than historical levels affecting interest earning on investments and interest expense on debt. However, both investment and bond rates have risen in the past year. The 2018 budget includes an \$78,642, or 36%, increase in earnings from operating funds investments as the average rates increase to 0.99% from 0.73%.

The strong equity market returns caused the annual pension costs to decreased. The 2018 estimated actuarially determined contribution to our pension plans are approximately \$1.4 million, which is \$200,000 lower than the prior year.

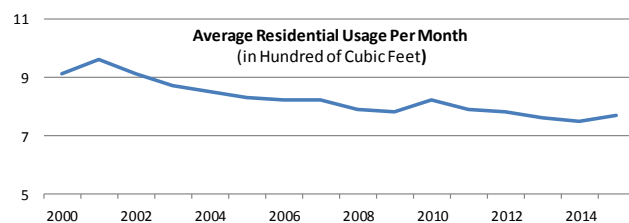
The chemical, metal and fuel commodity market prices are impacted by the economy's health and have been volatile in the past couple of years. Approximately 10% of the District's expenses are related to chemical, metal and fuel markets. The 2018 budget reflects the commodity prices available in mid-2017.

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 2018 Budget includes the impact of debt service of \$13.5 million in capital expenditures and approximately \$200,000 in operating expenses addressing these two focus areas.

Water Consumption

Though the District has ample supply of water, consumers have reduced their water consumption. Since 2000, the average residential household usage (HCF) has declined by more than 15%. Some of the reasons are rising wastewater fees encouraging conservation and the availability of more water efficient household appliances.



Significant Budget Uncertainties

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

Salaries and Wages (\$11.07 million or 25.4% of total budget). The latest three-year union contract expires at the end of October 2018. For 2018 budget purposes, union wage rates were assumed to increase by 3.0% effective November 1, 2017. Non-union pay rates were assumed to increase by 3.0% effective January 1, 2018.

In addition, the budget assumes 15,808 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. Additional hours were included in the budget to assist in the implementation of the new Asset, Billing and Customer Relations computer system, though the actual hours needed are unknown. For every additional 1,000 hours of overtime/double time pay, costs increase by approximately \$37,266.

Purchased Power (\$1.94 million or 4.4% of total budget). Electricity costs consist of delivery charges purchased from Central Maine Power (\$751,637) and energy costs purchased from Constellation Energy (\$982,415) as well as other costs (\$201,041) including capacity charges. Typically, CMP implements a rate adjustment effective July 1st. The amount of the 2018 increase is unknown. The 2018 budget assumes a 5% increase. For every variance of 1%, the budget would be impacted by approximately \$10,000. Energy contracts lock in the prices for virtually the whole year, except for 13% of the three large accounts (Water Treatment and East End Wastewater Treatment/India Street pump station). The unlocked portion will pay the prevailing market rate. The budget assumed a market rate of \$.03/kwh, which is roughly equal to the current rate as of October 2017.

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

Chemicals (\$0.98 million or 2.2% 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 (\$0.46 million or 1.1% of total budget). The prices assumed for heating oil and vehicle fuel in the budget are the actual rates through September 2018. The price for natural gas, most of which is used for heat at the East End WWTF and the Douglass Street office, is budgeted for \$140,747 in budget. However, the unit price is still under negotiation as of the publication of this budget. In addition, the quantities budgeted are based on past historical usage and may vary.

Weather The weather is a noteworthy determinant of operating expenses. The timing and duration of below freezing weather impacts the number of water main and service leaks. The amount of snowfall and timing of snow melt and rainfall impacts the amount of storm water that must be pumped to and treated by wastewater plants. The duration of hot summer days impacts the amount of water produced by the water treatment facility. For the 2018 budget, the past three-year average of water produced and wastewater treated was assumed for operating expenses projections.

Major Policy and Resource Allocation Decisions

Operating Budget

Personnel Four additional positions are proposed. To support the increased focus on asset management the Engineering Services staff added a new Asset Management Technician. To provide improved service to customers, an additional Customer Service Coordinator and Water Utilities Specialist Foreperson are proposed. These positions will also allow adequate resources to be allocated for the implementation of the Asset, Billing and Customer Relations computer system. At the request of the city of Portland, the District will operate the whole Industrial Pretreatment Program which requires the hiring an Industrial Pretreatment Scientist. These additional employees increased the salaries/wage budget approximately \$211,000.

In addition to those four positions, the retirement of a Wastewater Chief Operator created an opportunity to reorganize and create a Maintenance Manager that will facilitate additional asset management focus and improved planning in the wastewater department. The Engineering Services department proposes hiring an additional Associate Engineer to assist in managing operation department's project requests. The Associate Engineer position was created by eliminating an unfilled SCADA Specialist position.

Overall, the 2018 budget continues our emphasis on training employees with the continued goal of providing an average of 80 hours training.

Employee Benefits The costliest employee benefits are health insurance and pension benefits. The 2018 Budget assumes a 10.0% increase in health insurance rates raising the gross cost by \$324,569. The increase is partially offset by the employees' health insurance co-pay percent increase to 8.0% from 7.0%; increasing employee contributions \$70,150. The net cost of health insurance is projected to increase \$253,319 (11.5%). The defined benefit plan contributions in the 2018 Budget decreased \$168,566 (10.6%) to \$1,414,488. The contribution is consistent with Board adopted long-term funding policy and estimated by the District's actuary. However, the rate of return on plan assets was changed to 6.5% from 7.0%. Without this change, the contribution would have been approximately \$200,000 lower than the budgeted amount.

Wastewater Sewer Lines Inspection In 2008, a commitment was made to inspect all sewer lines at least once every 10 years. In 2018, \$81,250 was allocated 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 2018 budget continues this effort by allocating close to \$100,000.

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

Renewal and Replacement The annual commitment of current revenue committed to capital project increased \$174,169 (3.74%) with a small decrease in Water and small increases in the Wastewater funds.

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 2018, the amount dedicated to replace aging water mains will be \$7.0 million. Water Services and Engineering Services staff will allocate significant resources to manage these projects. Water Services has included additional money to outsource tasks to the private sector, enabling staff to allocate additional time for water main inspection.

Significant capital projects include the following:

- **Water Main Renewals:** Replacing aging water mains continues to be a major focus of the District and includes \$7,000,000 investment in 2018.
- **Asset, Billing and Customer Relations Computer System:** The current computer system is obsolete and needs to be replaced. The project is estimated to cost \$4 million.
- **Westbrook Regional Wastewater Treatment Plant:** A sludge dewatering project is scheduled to be completed at the Westbrook plant in 2018 (\$1,000,000) as well as completing upgrading the Dana Court pump station (\$2,200,000).
- **Windham/Gorham 407 Zone upgrade:** The 2003 water master plan noted that, within the next 20 years, water demand growth in Windham and Gorham will exceed the current capacity. Since 2003, incremental improvements have been made to address the future shortfall. Preliminary engineering of a new pump station has been completed in with construction scheduled to be completed for 2017 (\$2,000,000). Preliminary engineering on a new tank is scheduled for 2018 with construction scheduled for the following year.

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 2018 budget assumes a 3.8% increase in rates.

The 3.8% increase includes allocating 1.0% to the Capital Reserve fund. The Maine Public Utilities Commission adopted a rule in 2013 allowing the District to increase water rates up to 10% of water revenues and dedicate revenues for capital improvement. After the proposed increase, the percent of water revenue allocated to the Capital Reserve annually will be 5%. 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

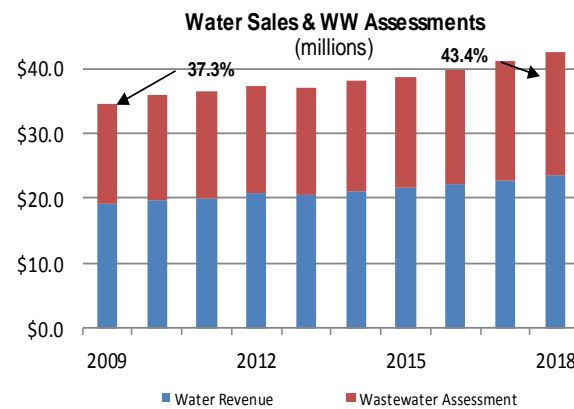
The proposed budget includes \$43.8 million in revenues and \$43.6 million expenses.

Revenues

The two major revenue sources are water sales (\$23.65 million or 54.0% of total revenue) and wastewater assessment revenues (\$19.00 million or 43.4% of total revenue). Wastewater revenues have increased from \$15.44 million, or 37.3% of total revenue, since 2009 principally due to addressing capital needs requested by municipalities or aging infrastructure.

Water revenues are generated from potable water and sprinkler charges to individual customers, and public fire protection charges to municipalities. The 2018 Budget assumes an increase of 3.8% over current rates on May 1, 2018.

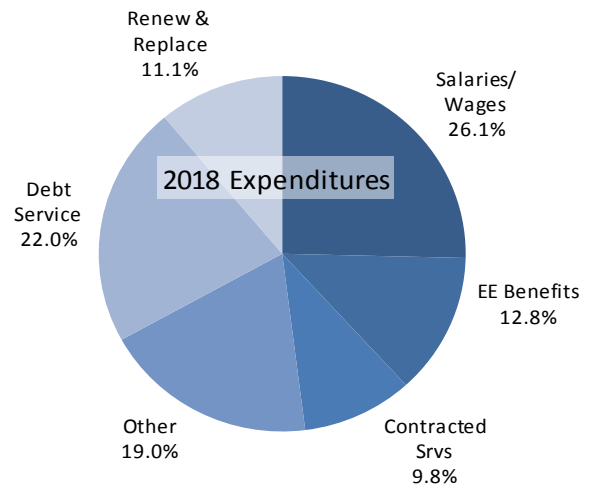
Wastewater assessments are the amounts billed individual municipalities to provide collection, sewer treatment, interception, utility billing services and, by request, collection and billing services. Assessments in 2018 increased 3.2% overall (\$584,832)



Expenses

Departmental Expenses increased to \$43.6 million, an increase of 3.8%.

Personnel Costs, (Salaries/Wages and employee Benefits) which are 38.2% of the total budget, increased 3.5% due to the average labor rate increase of 3.0% and the additional four positions (178 to 182). Debt Service (22.0% of expense) increased 8.1% due to new debt issues. Contracted Services increased 4.3% (\$177,008); Renewal and Replace contributions increased \$174,166 (3.7%) while Other Expense decreased \$17,436 (0.2%).



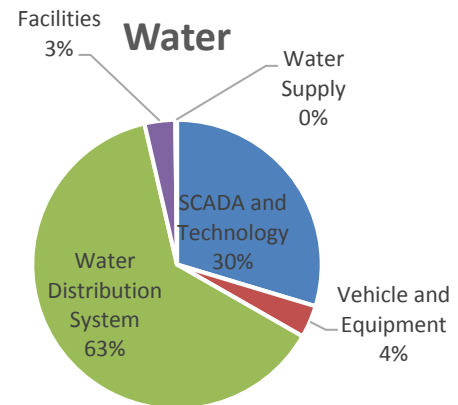
Capital Budget Summary

The proposed Capital Budget is \$19.3 million with projects for the water and wastewater funds of \$13.8 million and \$5.5 million, respectively.

Water

Of the \$13.8 million in water capital projects, the largest component (63%) involves the renewal of water distribution assets such as mains, services, meters and hydrants. The other categories include the water facilities and security (3%), vehicles and equipment (4%), technology and SCADA (30%) and water supply (<1%). The implementation of a \$3.8 million asset, billing and customer relations software is a significant technology project in 2018.

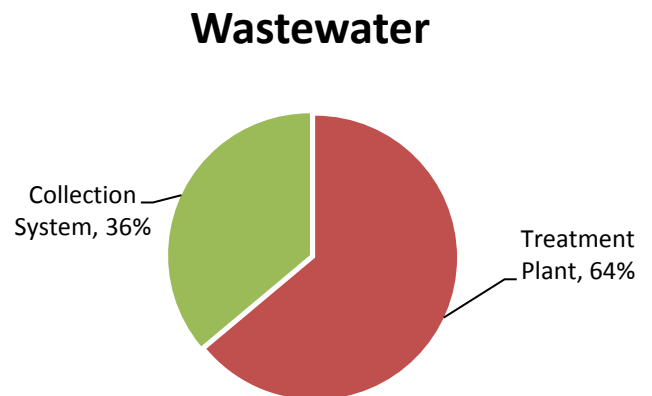
The projects will be funded by issuing \$10.2 million in bonds and utilizing \$3.6 million in renewal and replacement proceeds.



Wastewater

The largest project included in the \$5.5 million wastewater capital plan is the \$1.6 million upgrade at East End WWTF and a \$1.1 million for the Cape Elizabeth WWTF. Additionally, work will be completed at the Cape Elizabeth pump stations and Portland CSO mitigation.

The projects will be funded by issuing \$3.6 million in bonds and by utilizing \$2 million in renewal and replacement fund proceeds.



Combined Water and Wastewater Operating Funds

Total revenues are \$43.8 million, \$1.56 million or 3.7% higher than last year's budget. The Budget proposes a 3.8% water rate increase effective May 2018. Wastewater Assessments increases for the full year are budgeted in Cape Elizabeth (4.8%), Cumberland (7.2%), Falmouth (17.6%) and Portland (3.4%).

Operating Expenses are \$43.63 million, an increase of 3.8%. The following pages provide additional detail.

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Beginning Fund Balance	\$9,874,301	\$10,892,391	\$12,444,650	\$11,889,442		
Water Sales	23,301,888	10,697,559	22,800,978	23,650,742	849,764	3.7%
Assessment Income	17,529,312	9,209,352	18,418,704	19,003,536	584,832	3.2%
Contracted Billing Income	203,208	98,937	203,364	208,440	5,076	2.5%
Interest Income	163,470	146,508	216,744	295,386	78,642	36.3%
<u>Other Income</u>	<u>754,394</u>	<u>269,525</u>	<u>616,800</u>	<u>653,180</u>	<u>36,380</u>	<u>5.9%</u>
Total Revenue	41,952,272	20,421,881	42,256,590	43,811,284	1,554,694	3.7%
Salaries & Wages	10,114,274	5,096,143	10,625,197	11,072,089	446,892	4.2%
Employee Benefits	4,938,236	2,685,318	5,492,790	5,602,176	109,386	2.0%
Biosolids Disposal	1,518,720	952,872	1,451,816	1,504,698	52,882	3.6%
Chemicals	1,029,539	502,923	989,330	976,654	-12,676	-1.3%
Contracted Services	4,205,484	1,591,891	4,088,905	4,265,913	177,008	4.3%
Deferred Cost W/O	24,486	7,200	14,400	14,400	0	0.0%
Heat/Fuel Oil	345,009	218,727	342,764	313,193	-29,571	-8.6%
Insurance	203,471	103,831	201,206	212,657	11,451	5.7%
Materials & Supplies	1,855,517	824,304	1,634,986	1,661,287	26,301	1.6%
Other Expense	638,586	319,233	707,256	727,158	19,902	2.8%
Purchased Power	1,728,376	975,290	1,991,651	1,935,093	-56,558	-2.8%
Regulatory/Taxes	205,275	104,347	218,015	216,465	-1,550	-0.7%
Tele/Other Utilities	337,100	154,280	348,282	377,004	28,722	8.2%
Transportation	1,101,984	550,781	1,210,427	1,133,133	-77,294	-6.4%
Trans Offset	-737,212	-383,021	-814,406	-793,454	20,952	-2.6%
Department Expense	27,508,845	13,704,119	28,502,619	29,218,466	715,847	2.5%
Debt Service	7,613,396	4,318,088	8,864,052	9,577,782	713,730	8.1%
Renewal & Replacement - Direct	4,049,034	2,035,741	4,071,482	3,985,651	-85,831	-2.1%
<u>Renewal & Replace - Indirect</u>	<u>590,000</u>	<u>295,001</u>	<u>590,000</u>	<u>850,000</u>	<u>260,000</u>	<u>44.1%</u>
Operating Expense	39,761,275	20,352,949	42,028,153	43,631,899	1,603,746	3.8%
Current Surplus (Deficit)	2,190,997	68,932	228,437	179,385		
Transfer to R&R	-753,458	0	0	0		
Transfer to Capital Reserve	-102,625	-24,297	-48,594	-62,288		
Transfer to Land Fund	-399,700	0	0	0		
Land Cash Reserve Expense	82,876	0	0	0		
Ending Fund Balance	10,892,391	10,937,026	12,624,493	12,006,539		
Operating Expense (above)	39,761,275	20,352,949	42,028,153	43,631,899		
<u>Capital Expenditures</u>	<u>23,601,696</u>	<u>6,889,590</u>	<u>18,720,500</u>	<u>19,310,000</u>		
Total Expenditures	63,362,971	27,242,539	60,748,653	62,941,899		

Combined Operating, Capital and Grant Funds

The total combined revenue and funding for 2018 is \$63.1 million, total combined expenditures are \$62.9 million. The budgeted surplus for 2018 is \$179,385.

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

	Operating	Capital	Total
Water Sales	\$23,650,742	\$0	\$23,650,742
Assessment Income	19,003,536	-	19,003,536
Water Bond	-	9,200,000	9,200,000
Water R&R	-	4,575,000	4,575,000
Wastewater Bond	-	3,975,000	3,975,000
Wastewater R&R	-	1,560,000	1,560,000
Contracted Billing Income	208,440	-	208,440
Interest Income	295,386	-	295,386
Other Income	653,180	-	653,180
Total Revenue	43,811,284	19,310,000	63,121,284
Salaries & Wages	11,072,089	369,227	11,441,316
Employee Benefits	5,602,176	168,276	5,770,452
Biosolids Disposal	1,504,698	-	1,504,698
Chemicals	976,654	-	976,654
Contracted Services	4,265,913	18,134,464	22,400,377
Deferred Cost W/O	14,400	-	14,400
Heat/Fuel Oil	313,193	-	313,193
Insurance	212,657	-	212,657
Materials & Supplies	1,661,287	558,654	2,219,941
Other Expense	727,158	-	727,158
Purchased Power	1,935,093	-	1,935,093
Regulatory/Taxes	216,465	-	216,465
Tele/Other Utilities	377,004	-	377,004
Transportation	1,133,133	79,379	1,212,512
Trans Offset	(793,454)	-	(793,454)
Operating Expense	29,218,466	19,310,000	48,528,466
Debt Service	9,577,782	-	9,577,782
Renewal & Replacement - Direct	3,985,651	-	3,985,651
Renewal & Replace - Indirect	850,000	-	850,000
Total Expense	43,631,899	19,310,000	62,941,899
Surplus (Deficit)	179,385	-	179,385

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, 2017. In order to receive the award, a government unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communication device.

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



GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished Budget Presentation Award

PRESENTED TO

**Portland Water District
Maine**

For the Fiscal Year Beginning

January 1, 2017

A handwritten signature in black ink, reading 'Jeffrey R. Egan'.

Executive Director

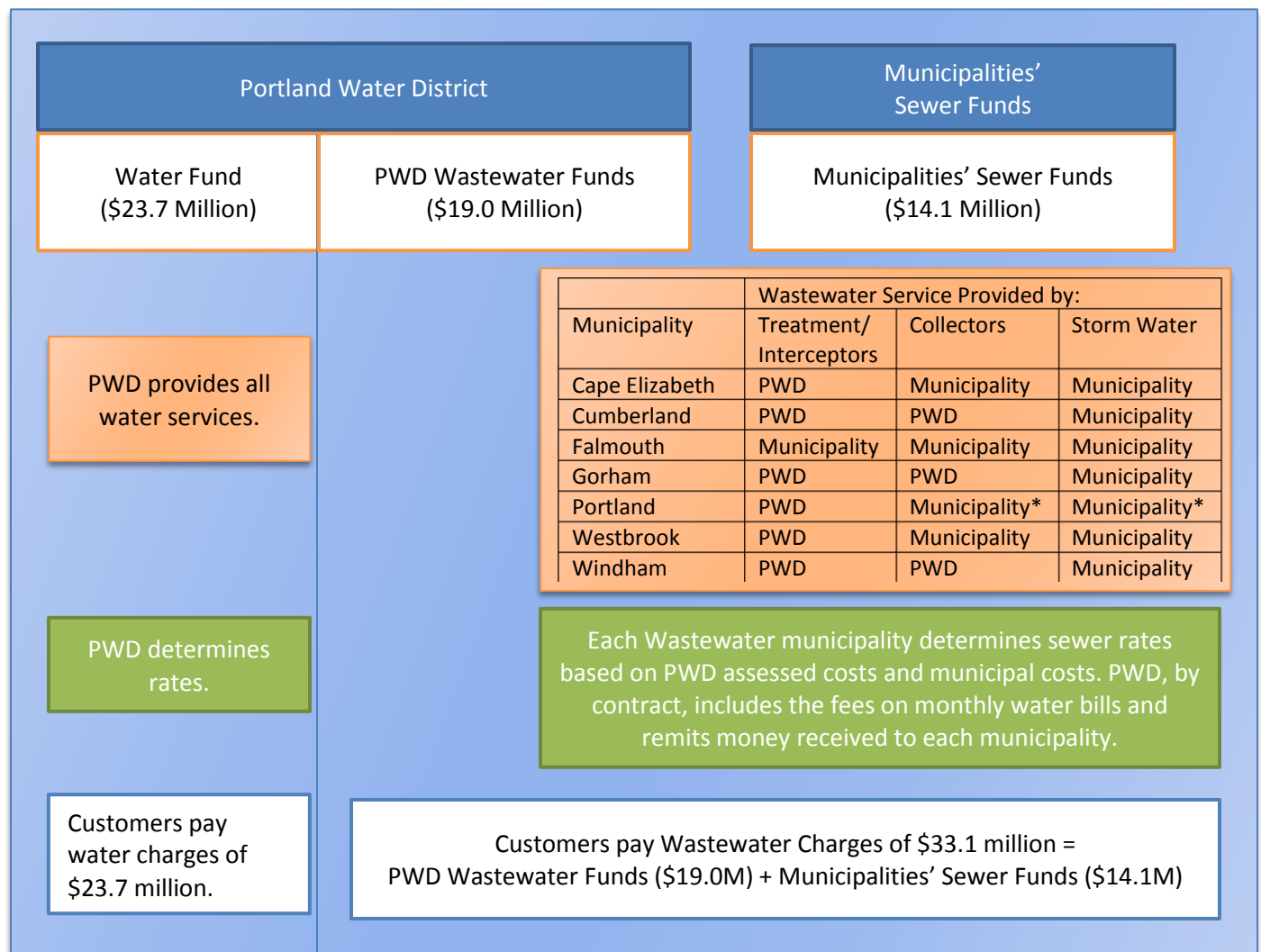
Introduction

The District uses seven enterprise funds – a water fund and six wastewater funds. The six wastewater funds are for the towns of Cape Elizabeth, Cumberland, Gorham and Windham and 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 bill mailed to the Ratepayers.



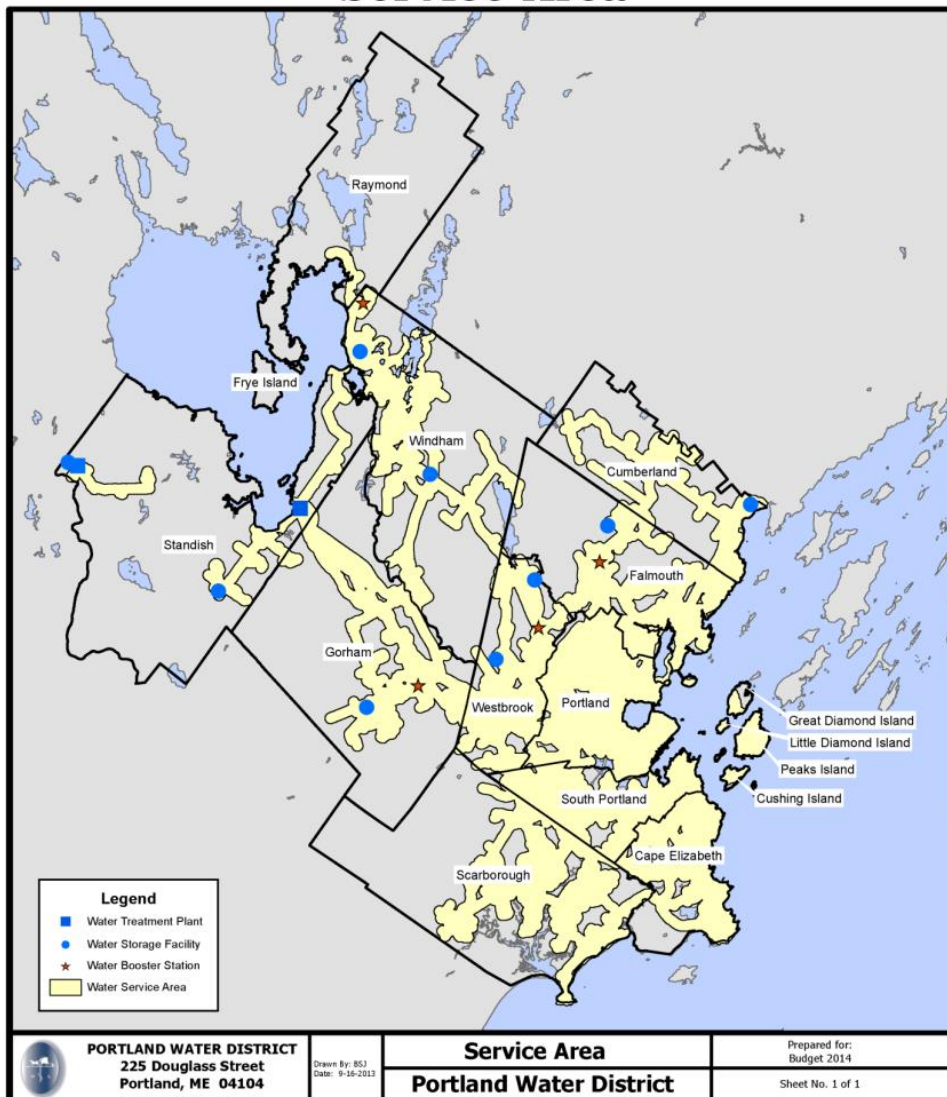
*By contract, the District maintains collectors and storm drain system on Peaks Island, a small part of Portland

Fund: Water

Background

The Portland Water District's charter authorizes the District to provide service to the inhabitants of 11 cities and towns. Approximately 210,000 inhabitants are served portable drinking water. In addition, water for public and private fire protection is provided. Water operation is regulated by the Department of Health and Human Services for water quality and 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.

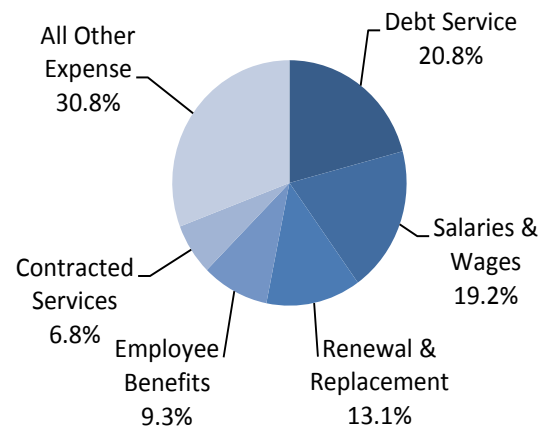
2018 Financial Summary

The proposed 2018 Operating expense and Capital budgets are \$23,963,819 and \$13,775,000, respectively.

Operating Expense was \$959,576, or 4.2%, higher than the previous year. Departmental Expense was up 3.1% (\$469,281) and Renewal & Replacement (direct & indirect) was down \$30,513. Debt Service increased \$520,808 (11.6%) due to newly issued debt.

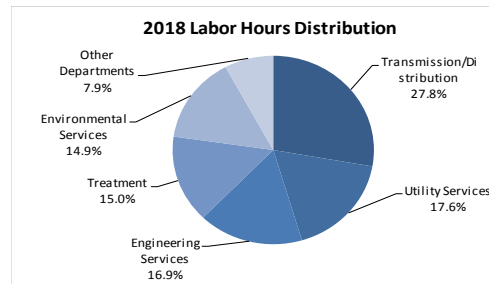
The Capital budget includes \$7 million for distribution main renewals. Additionally, \$3.8 million in capital work involving implementing a new asset, billing and customer relations (ABC) computer system.

2018 Operating Expense



2018 Operating Expense Highlights

Salaries/Wages – Wages rates increased an average of 3.2%. Total hours increased 2.1% (3,617 hours) due to new position: utility specialist foreperson. The result was an overall increase of \$234,869 (5.4%).



Employee Benefits – The benefit rate (including FICA) decreased slightly from 54.8% in 2017 to 53.4% in 2018. Overall, employee benefits expense increased 2.9% (\$62,803).

Chemicals – Costs are budgeted to decrease \$632 (0.2%). Chemical usage is based on historical usage and pricing based on current prices and predicted market trends.

Contracted Services – This cost, which are services provided by third party vendors, increased \$75,624 (4.9%). Paving expense increased \$76,850 to be in line with past experience. A large increase in engineering services (\$23,500) was offset by a reduction in contractor construction (\$24,500).

Facilities – The cost of Douglass Street facilities utilized by the Water Fund decreased 6.0% (\$7,436). This was primarily due to lower costs for heating due to a switch from heating oil to natural gas.

Heat/Fuel Oil – This expense, which covers the cost of fuel used for heating the generator at the treatment plant, decreased 8.5% (\$8,638) due to a drop in the per gallon cost of heating oil.

Other Expense – Other Expense increased \$26,027 as the result of several changes including safety expenses, equipment rental and an increase in watershed grants.

Purchased Power – The decrease in electricity costs for the treatment plant was the primary factor effecting the budget. Overall, the budget was down \$20,929 or 4.9%.

Telephone/Other Utilities – This expense is up \$13,594 (15.2%) due higher monthly costs associated with data lines and cell phones.

Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as administrative time or training) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services allocated to the Water fund increased \$118,032 or 2.7%. Water Services declined due to reductions labor planned for meter service work, other segments such as Administration and Engineering Services increased due to additions to headcount (customer service coordinator and tech maintenance specialist respectively).

Debt Service – This is the annual principal and interest payments on bonds issued to finance capital projects. This expense will increase 11.6% (\$520,808) in 2018 due to new debt issued primarily for new main renewal projects.

Renewal & Replacement – These are dollars put aside to fund capital projects. They will decrease \$30,513 (0.96%) due to shifts in funding from general water assets to other assets such as meters and facilities.

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Water Sales	\$23,301,888	\$10,697,559	\$22,800,978	\$23,650,742	\$849,764	3.7%
Interest Income	89,988	74,386	113,072	151,440	38,368	33.9%
<u>Other Income</u>	<u>475,553</u>	<u>208,594</u>	<u>317,900</u>	<u>385,680</u>	<u>67,780</u>	<u>21.3%</u>
Total Revenue	23,867,429	10,980,539	23,231,950	24,187,862	955,912	4.1%
Salaries & Wages	4,285,588	2,191,683	4,374,797	4,609,666	234,869	5.4%
Employee Benefits	2,005,845	1,098,158	2,164,003	2,226,806	62,803	2.9%
Chemicals	387,172	172,580	395,589	394,957	-632	-0.2%
Contracted Services	1,961,253	535,392	1,547,511	1,623,135	75,624	4.9%
Facilities	97,819	49,526	124,758	117,322	-7,436	-6.0%
Heat/Fuel Oil	117,526	79,022	101,762	93,124	-8,638	-8.5%
Insurance	28,669	14,243	28,710	30,486	1,776	6.2%
Materials & Supplies	831,368	311,176	630,905	653,563	22,658	3.6%
Other Expense	110,941	77,563	116,080	142,107	26,027	22.4%
Purchased Power	389,561	178,967	425,993	405,064	-20,929	-4.9%
Regulatory/Taxes	205,275	104,347	218,015	216,465	-1,550	-0.7%
Tele/Other Utilities	90,055	33,643	89,683	103,277	13,594	15.2%
Transportation	727,372	363,945	798,330	751,413	-46,917	-5.9%
SS - Administration	3,186,705	1,616,085	3,379,833	3,479,399	99,566	2.9%
SS - Engineering Services	676,075	354,957	765,946	811,894	45,948	6.0%
SS - Environmental Services	102,287	51,231	80,417	73,388	-7,029	-8.7%
<u>SS - Water Services</u>	<u>96,772</u>	<u>36,755</u>	<u>123,006</u>	<u>102,553</u>	<u>-20,453</u>	<u>-16.6%</u>
Operating Expense	15,300,283	7,269,273	15,365,338	15,834,619	469,281	3.1%
Debt Service	4,068,458	2,183,145	4,474,269	4,995,077	520,808	11.6%
Renewal & Replacement - Direc	2,700,000	1,400,000	2,800,000	2,600,000	-200,000	-7.1%
<u>Renewal & Replace - Indirect</u>	<u>364,611</u>	<u>182,318</u>	<u>364,636</u>	<u>534,123</u>	<u>169,487</u>	<u>46.5%</u>
Total Expense	22,433,352	11,034,736	23,004,243	23,963,819	959,576	4.2%
Current Year Surplus (Deficit)	1,434,077	-54,197	227,707	224,043		
Transfer to Capital Reserve	-102,625	-24,297	-48,594	-62,288		
Transfer to Land Reserve	-399,700	0	0	0		
Land Cash Reserve Expense	82,876	0	0	0		
<u>Prior Year Surplus</u>	<u>4,608,940</u>	<u>5,623,568</u>	<u>6,008,944</u>	<u>6,320,897</u>		
Accumulated Surplus	5,623,568	5,545,074	6,188,057	6,482,652		

Operation Summary

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

The District maintains approximately 1,000 miles of water mains that carry the water from Sebago Lake to the customer's homes. During the past few years, more efforts are being focused on the renewal of the older water mains in our system. In 2018, 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 2017 Distribution System Water Quality Summary

Page 1 of 1

August Greater Portland:
0 of 157 coliform samples were positive (0.00%, Limit = 5%)
2017 Totals:
0 of 1212 coliform samples were positive (0.00%)

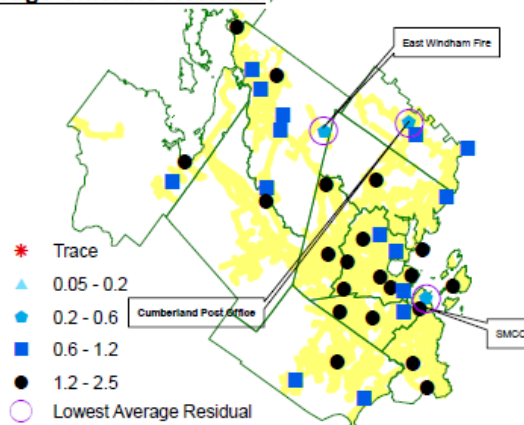
Distribution System Water Quality Data

Parameter	August	Year to Date	Goal
Cl ₂ Residual			
10th Percentile	0.57	0.88	≥ 0.60 ppm
Mean	1.34	1.47	
pH Value			
10th Percentile	7.30	7.30	≥ 7.20
Median	7.50	7.60	

Lowest Average Chlorine Residual

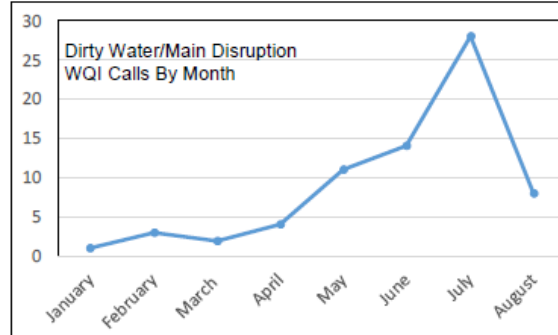
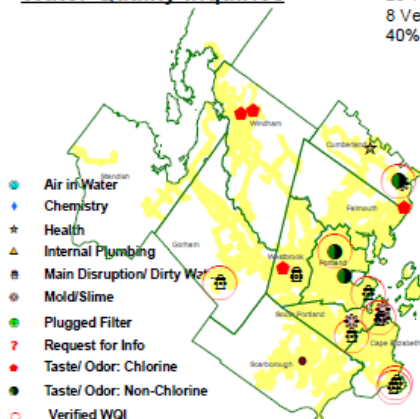
Southern Maine Community College	0.24 mg/L
East Windham Fire	0.53 mg/L
Cumberland Post Office	0.59 mg/L

Average Chlorine Residual



Water Quality Inquiries

20 Total WQIs
8 Verified WQIs
40% Verified



Dirty Water/Main Disruption calls have typically been the most common type of WQI call. Here you can see the trend by month for 2017 for this type of call. Dirty water calls can often be attributed to water main breaks, construction work and flushing. As shown above, the number of calls per month has increased steadily through the summer and then declined in August. Will the reduction in calls continue? We will see next month.

Operation Summary (continued)

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



Initially, the District reported basic distribution system data. In 2016 District staff began a 12-month process to prepare for what the Partnership refers to as the third-phase submittal. The focus of this work is to help utilities evaluate their own distribution system performance against regulatory requirements and industry Best Management Practices. In areas where improvement is desired, a continuous improvement process supports the creation of short-term and long-term goals. Staff will complete this phase of the work in late 2017 or early 2018.

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

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

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. A summary of the planned projects are listed below with a detailed description in the CIP section.

Expenditures by CIP Year:

	<u>2017</u>	<u>2018</u>	<u>Total</u>
Projects:			
Water Only	\$ 2,000,000	\$ 8,725,000	\$ 10,725,000
Water Allocated		\$ 5,050,000	\$ 5,050,000
Total by CIP Year	\$ 2,000,000	\$ 13,775,000	\$ 15,775,000

Source of Funds:

	<u>R&R Fund</u>	<u>Bond Issue Year:</u>		<u>Total Funding</u>
		<u>2018</u>	<u>2019</u>	<u>Total</u>
Beginning Balance	\$ 5,619,672			
2018 Contribution	\$ 3,770,000			
Total R&R Balance Available	\$ 9,389,672			
Projects:				
Water Only	\$ 2,325,000	\$ 8,000,000	\$ 400,000	\$ 10,725,000
Water Allocated	\$ 2,250,000	\$ 1,000,000	\$ 1,800,000	\$ 5,050,000
Total	\$ 4,575,000	\$ 9,000,000	\$ 2,200,000	\$ 15,775,000
Ending Balance	\$ 4,814,672			

Projections for Rate-Making Purposes

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

Major Assumptions:

The assumptions incorporated in the projections are as follows:

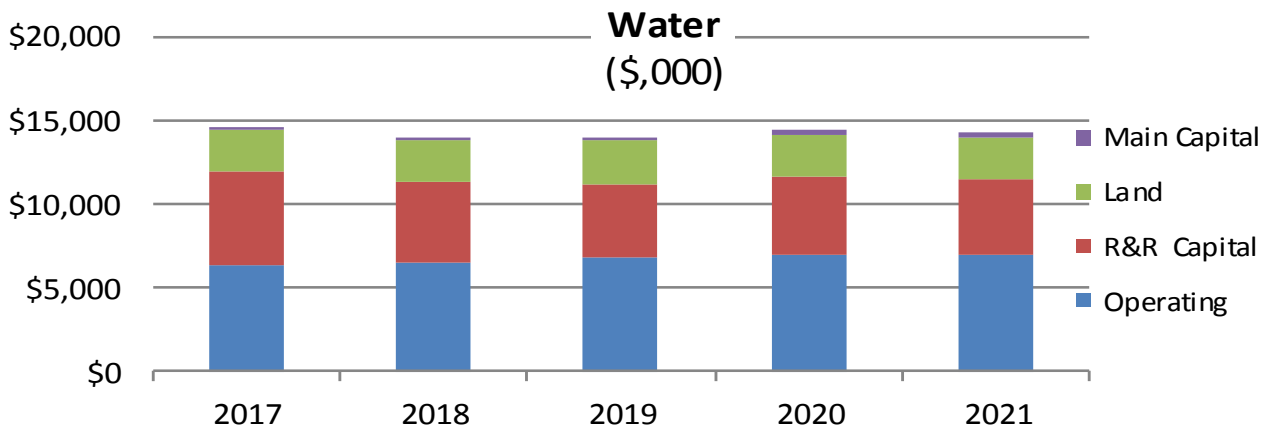
- Salary increases of 2.5% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2018 5-year capital plan. New debt assumed a 20-year life at % (State Revolving Loan Fund bond) or 5%.

Assessment is projected to increase to \$13,870,238 in 2021, a 13% increase over 2018 Budget, with the most significant cost change related to debt service issued to finance capital projects.

Summary

Water Revenue is projected to increase to \$28,034,919 by 2021, or 18%, with the most significant cost change related to debt service issued to finance capital projects. Operating and R&R Capital balances are expected to meet or exceed their target balance.

Reserve Fund Balances



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

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

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2016	2017	2018	2019	2020	2021
Water	2.01	1.69	1.61	1.57	1.49	1.42

Projections for Rate-Making Purposes (continued)

Water Fund

Operating Fund:

	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected
Water Revenue	\$23,650,742	\$24,951,533	\$26,573,383	\$28,034,919
Other Income	385,680	385,680	385,680	385,680
Interest Income	151,440	151,440	151,440	151,440
Total Revenue	24,187,862	25,488,653	27,110,503	28,572,039
Expense:				
Salaries/Wages	4,609,666	4,724,908	4,843,031	4,964,107
Employee Benefits	2,226,806	2,338,146	2,455,053	2,577,806
Contracted Svcs	1,623,135	1,671,829	1,721,984	1,773,644
Transportation	751,413	773,955	797,174	821,089
Materials/Supplies	653,563	673,170	693,365	714,166
Purchased Power	405,064	417,216	429,732	442,624
Chemicals	394,957	406,806	419,010	431,580
Regulatory/Taxes	216,465	222,959	229,648	236,537
Heat/Fuel Oil	93,124	95,918	98,796	101,760
Facilities	117,322	120,842	124,467	128,201
Other Expense	142,107	146,370	150,761	155,284
Tele/Oth Utilities	103,277	106,375	109,566	112,853
Insurance	30,486	31,401	32,343	33,313
Support Services:				
Administration	3,479,399	3,708,502	3,944,478	4,187,533
Engineering Services	811,894	836,251	861,339	887,179
Water Services	102,553	105,630	108,799	112,063
Environmental Services	73,388	75,590	77,858	80,194
Capital:				
Debt Service	4,995,077	5,575,997	6,560,011	7,422,470
Renewal & Replacement	3,134,123	3,134,123	3,134,123	3,134,123
Total Expense	23,963,819	25,165,988	26,791,538	28,316,526
Annual Surplus (Deficit)	224,043	322,665	318,965	255,513
Transfer to Cap Reserve	-62,288	-59,708	-97,133	-172,491
Carryforward Surplus	6,320,897	6,482,652	6,745,609	6,967,441
Period End Surplus	6,482,652	6,745,609	6,967,441	7,050,463
Target	5,990,955	6,291,497	6,697,885	7,079,132
Above/(Below) Target	\$491,697	\$454,112	\$269,557	-\$28,669

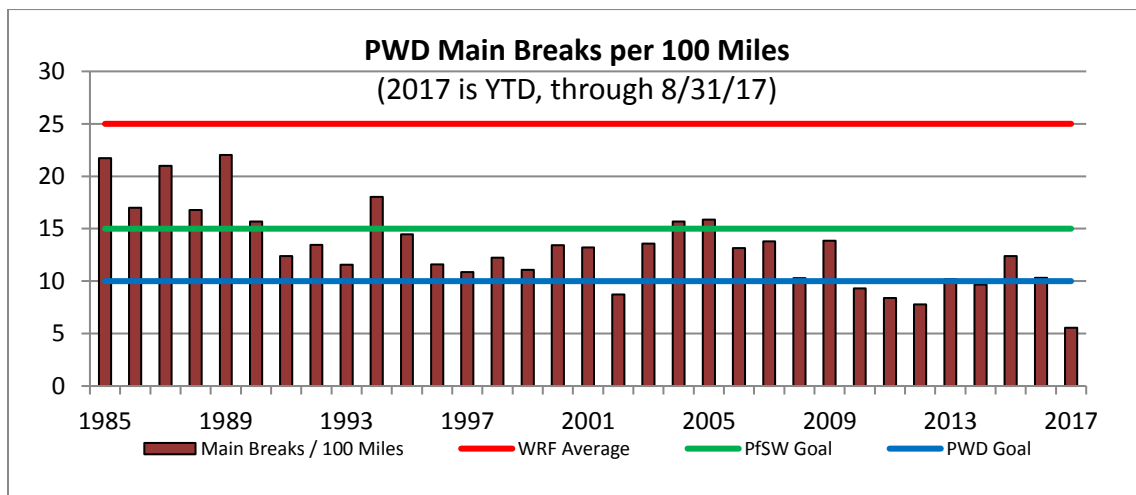
Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$3,015,923

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2018	5,619,672	3,770,000	9,200,000	13,775,000	4,814,672
2019	4,814,672	3,770,000	11,100,000	15,200,000	4,484,672
2020	4,484,672	3,770,000	7,000,000	10,584,000	4,670,672
2021	4,670,672	3,770,000	6,000,000	10,000,000	4,440,672

Water Main Renewals



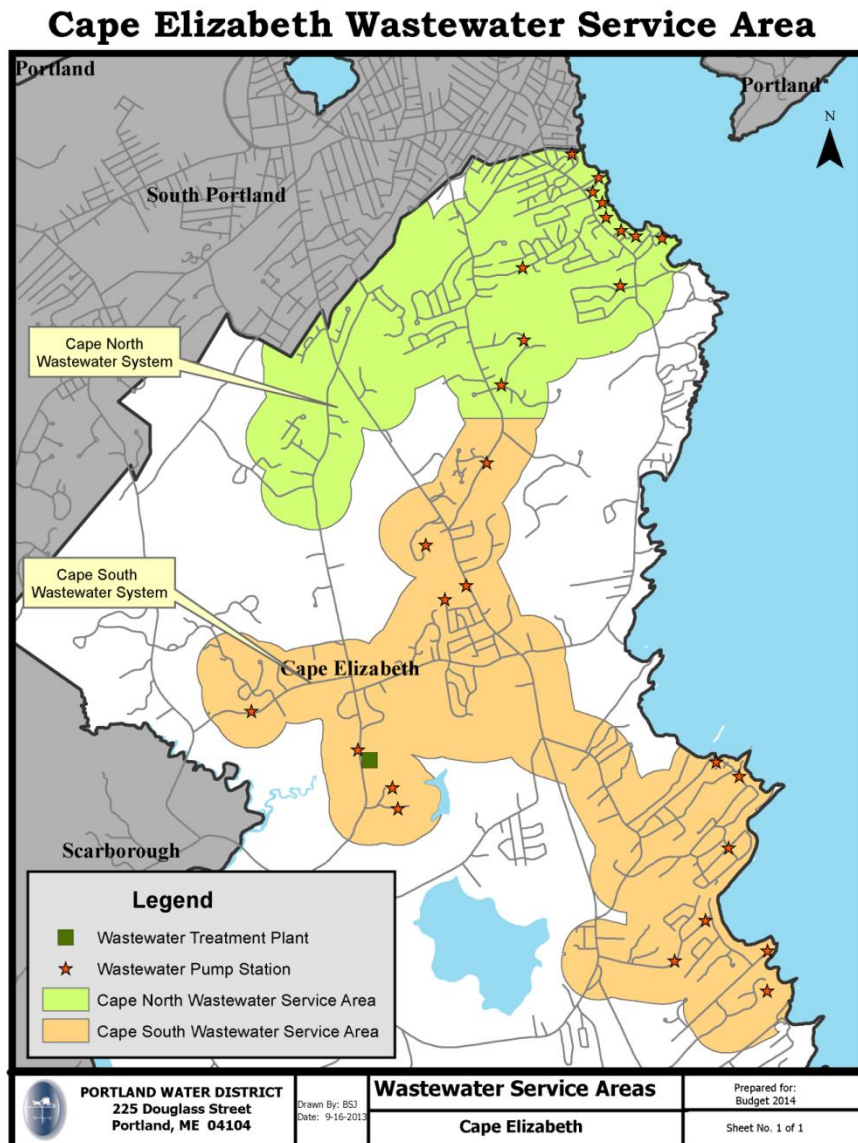
Our commitment to maintain aging water infrastructure includes replacing water mains. The 2018 budget continues this commitment with planned projects totaling \$7.0 million dollars. The projects will be funded with current year's revenue (\$1 million) and bond proceeds (\$6.0 million). The increased investment in main renewal has impacted the number of main breaks.



Fund: Wastewater - Cape Elizabeth

Background

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



Summary of Services Provided:

Treatment:

Cape South 0.52 million gallons/ day

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

Collection System:

27 Pump Stations with
18.8 miles of pipe

Utility Billing Services:

Annual Billings of
\$2,140,000 on 2,351
Customers (avg.
\$75.85/month)

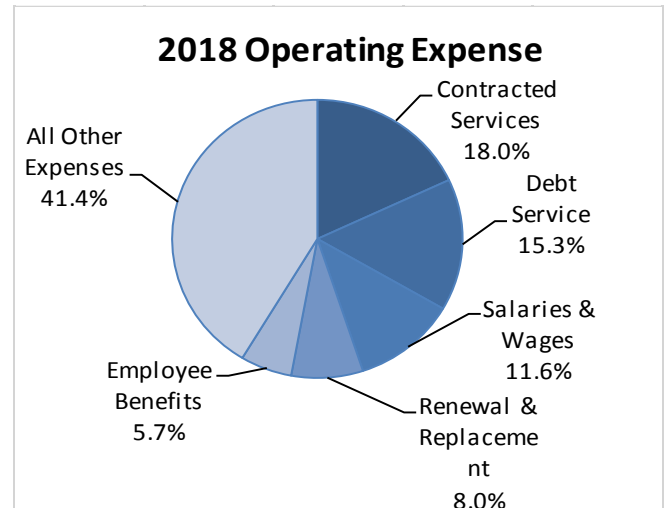
Fund: Wastewater - Cape Elizabeth

2018 Financial Summary

The proposed assessment of \$1,539,840 is a 4.8% increase. The assessment is lower than the forecasted assessment provided the town last year.

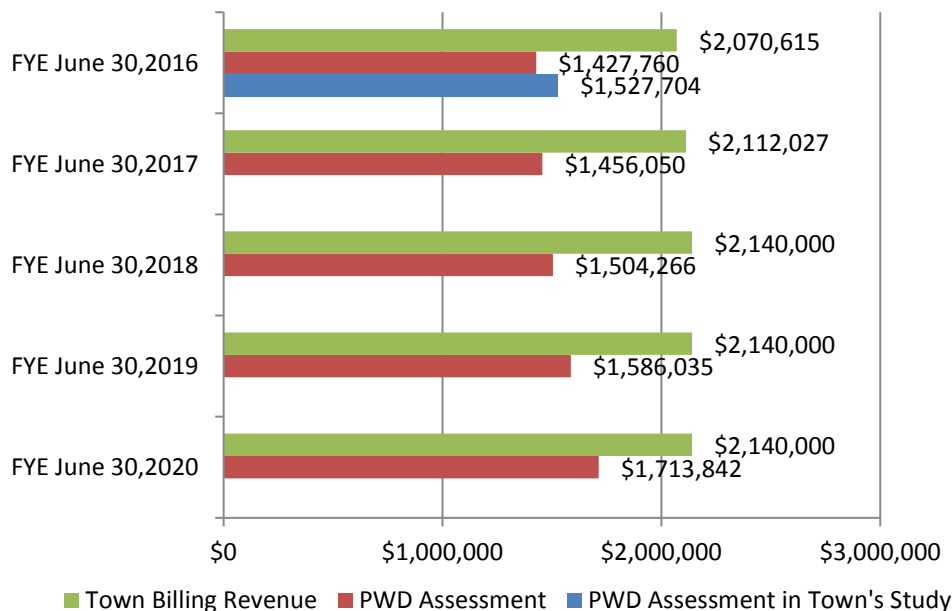
The proposed 2018 Operating Expense and Capital budgets are \$1,547,830 and \$2,030,000 respectively. The Operating Expense budget increased \$72,409 or 4.9%.

The 2018 Capital budget includes upgrades at the Little John (Family Field) pump station, the installation of UV treatment equipment and a heating (HVAC) system upgrade at the treatment plant that will be bond financed and a generator installation to be funded from renewal and replacement funds.



Assessment Compared to Ratepayers' Billing

The municipality's fiscal year end is June 30, while the District's is 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 when to increase the sewer billing rates.



Revenue Assumptions:

- Consumption is for the 12 months ending June 30, 2017

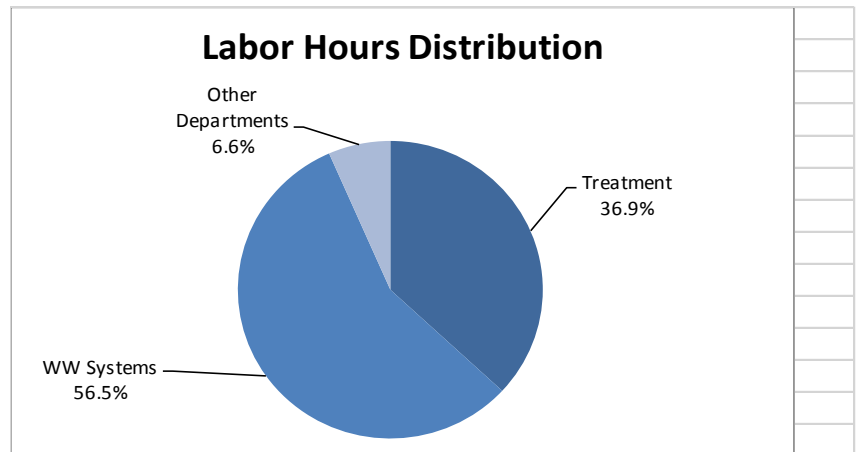
- Rates Assumed:

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

2018 Operating Expense Highlights

Salaries/Wages – Labor hours budgeted decreased 0.5% (33 hours). This combined with the average wage rates increase of 4.0% resulted in a 3.5% (\$6,117) increase in Salaries/Wages.

Employee Benefits – The benefit rate (including FICA) decreased slightly from 54.8% in 2017 to 53.4% in 2018. Overall, employee benefits expense increased 1.0% (\$904).



Biosolids Disposal – The budget for Biosolids Disposal increased \$420 (2.3%). The budget assumes the same volume of wet tons with the increase being due to the annual per ton price allowed in the vendor contract.

Chemicals – The budget increased 61.0% (\$7,643), sodium bicarbonate usage doubling to assist in efforts to control nitrogen levels in the treatment plant's effluent.

Heat/Fuel Oil – The budget increased 14.2% (\$1,799) due to higher expected usage reflecting actual results at the treatment plant.

Purchased Power – The Purchased Power budget decreased 10.9% (\$9,122) as electricity rates trend lower than the previous year.

Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer service, billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased \$11,477 or 2.9%.

Administrative costs increased 4.5% (\$7,957) due to the addition of a customer service coordinator position. The decrease in Environmental Services (\$10,388 or 25.6%) was related in a reduction in routine monitoring related to the recently renewed discharge permit. In Wastewater, to increase the focus on asset management, a chief operator position in treatment was replaced with a wastewater maintenance manager. This change shifted costs to this line (up \$14,142 or 14.7%) away from the salaries/wages and employee benefits lines above. Water Services declined (\$423 or 12.1%) due to reductions labor planned for meter service work.

Debt Service – This is the annual principal and interest payments on bonds issued to finance capital projects. This cost increased \$17,837 (8.1%) from the prior year budget to \$237,089 with the issuance of debt relating to new capital projects.

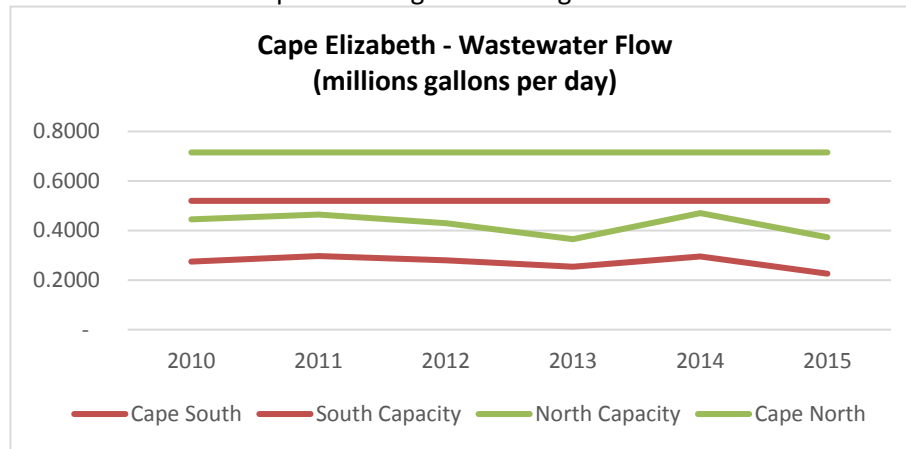
Renewal & Replacement – These are dollars put aside to fund capital projects. A contribution of \$123,577 will be made in 2018, the increase (\$27,539) is for anticipated capital projects.

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$1,443,408	\$734,346	\$1,468,692	\$1,539,840	\$71,148	4.8%
Interest Income	4,741	3,702	6,729	7,990	1,261	18.7%
Other Income	350	0	0	0	0	n/a
Total Revenue	1,448,499	738,048	1,475,421	1,547,830	72,409	4.9%
Salaries & Wages	194,112	91,537	172,681	178,798	6,117	3.5%
Employee Benefits	92,094	45,604	88,067	88,971	904	1.0%
Biosolids Disposal	16,771	13,494	18,390	18,810	420	2.3%
Chemicals	11,051	8,399	12,522	20,165	7,643	61.0%
Contracted Services	298,474	115,547	278,430	279,281	851	0.3%
Heat/Fuel Oil	13,504	10,597	12,704	14,503	1,799	14.2%
Insurance	5,265	2,645	5,256	5,290	34	0.6%
Materials & Supplies	40,773	6,184	38,200	38,850	650	1.7%
Other Expense	5,219	3,404	4,150	4,150	0	0.0%
Purchased Power	72,131	48,602	83,956	74,834	-9,122	-10.9%
Tele/Other Utilities	10,572	6,857	13,103	18,327	5,224	39.9%
Transportation	42,094	17,993	40,479	41,515	1,036	2.6%
SS - Administration	165,978	84,369	176,822	184,779	7,957	4.5%
SS - Engineering Services	41,244	21,234	75,196	75,385	189	0.3%
SS - Environmental Services	35,214	19,090	40,575	30,187	-10,388	-25.6%
SS - Wastewater Services	105,905	54,291	96,102	110,244	14,142	14.7%
SS - Water Services	2,800	993	3,498	3,075	-423	-12.1%
Operating Expense	1,153,201	550,840	1,160,131	1,187,164	27,033	2.3%
Debt Service	200,263	105,403	219,252	237,089	17,837	8.1%
Renewal & Replacement - Direct	80,000	40,000	80,000	100,000	20,000	25.0%
Renewal & Replace - Indirect	16,263	8,019	16,038	23,577	7,539	47.0%
Total Expense	1,449,727	704,262	1,475,421	1,547,830	72,409	4.9%
Current Year Surplus (Deficit)	-1,228	33,786	0	0		
Transfer to R&R	0	0	0	0		
Prior Year Surplus	400,000	398,772	382,855	440,347		
Accumulated Surplus	398,772	432,558	382,855	440,347		

Operation Summary

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

In 2016, the flow in the Northern area averaged 0.415 mgd and the South Cape flow to the treatment plant averaged 0.242 mgd.



Effluent Permit Requirements:

Parameter	Discussion																
Biological Oxygen Demand (BOD)	Measure of organic material and the strength of pollution. The treatment plant removed 94% of the BOD; well above the required 85% removal.																
Total Suspended Solids (TSS)	Measure of suspended material in the incoming wastewater. The treatment plant removed 97% of the TSS; well above the required 85% removal.																
Total Residual Chlorine	Used for disinfecting the treated effluent, chlorine must be removed before the effluent is discharged. The permit limit was met at all times.																
Fecal Coliform Bacteria	Following disinfection with chlorine, the fecal coliform level is monitored to confirm the treatment plant effluent was properly disinfected.																
<p style="text-align: center;">Permit Violations</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Violations</th> </tr> </thead> <tbody> <tr> <td>2010</td> <td>4</td> </tr> <tr> <td>2011</td> <td>3</td> </tr> <tr> <td>2012</td> <td>9</td> </tr> <tr> <td>2013</td> <td>0</td> </tr> <tr> <td>2014</td> <td>2</td> </tr> <tr> <td>2015</td> <td>5</td> </tr> <tr> <td>2016</td> <td>0</td> </tr> </tbody> </table>	Year	Violations	2010	4	2011	3	2012	9	2013	0	2014	2	2015	5	2016	0	<p>The Discharge Permit was renewed in late 2016. The renewed permit included significant reductions in routine monitoring requirements due to the plant's past performance. The permit includes monitoring for effluent nitrogen during the warmer season.</p>
Year	Violations																
2010	4																
2011	3																
2012	9																
2013	0																
2014	2																
2015	5																
2016	0																

Operation Summary (continued)

Wastewater Conveyance – interceptors and pumping stations: The Draft Ottawa Road CSO Long Term Control Plan was submitted to Maine Department of Environmental Protection in December 2011 and was approved in September 2013. The 5-year plan began in 2014. The plan's projects will mitigate the frequency and volume of overflow during extreme wet weather events by addressing private sources of infiltration and inflow in the collection system of Cape Elizabeth and South Portland. Both the Town of Cape Elizabeth and the City of South Portland have completed an inventory of private sources of I/I. Cape Elizabeth is currently working to install additional storm drainage to accommodate possible redirected private sources of I/I to the storm sewer system. PWD staff continues to respond and maintain service during various storm events and power failures, while we work to install emergency generators through our Capital Improvement process. This will assist in managing elevated flows during wet weather and often associated power losses.

Additional work performed by the Systems crew is shown in the table below:

Parameter	2017 Actual to Sep.	2018 Projected
Preventive Work Orders	340	350
Corrective	34	50
Wet wells cleaned	38	45
Debris removed (ton)	47.5	40
Dry Weather Overflows	2	0

2017 Other Highlights

- Asset Management Software continues to drive the preventive maintenance program; generating both monthly and annual preventive maintenance tasks for all pump stations, continuing our emphasis on pump station preventive maintenance program.
- All the equipment at the treatment plant was reviewed and the information in the asset management system was updated.
- Operations staff has begun the long task of reviewing the preventive work schedule and the creation of additional preventive work orders.
- Weekend sampling during the summer is now handled by staff from the East End WWTF, reducing routine overtime work.

2018 Work Plan

- The Town will continue to implement many of the recommendations of their inflow/infiltration assessment in the Ottawa Rd. area. PWD will continue to assist the Town as needed. PWD will also review the performance of the Ottawa Rd. pump station and the design of a future upgrade. While the ability to increase capacity will be considered, site limitations and the capacity of the downstream sewer system will likely limit any capacity increases.
- Design of the Little John (Family field) Pump Station will begin in 2018.
- As recommended by the completed treatment feasibility study, design of the UV disinfection treatment system will begin in 2018. This project is currently being considered alongside several other possible projects at the plant. The UV system will likely address many of the issues and challenges associated with the needed upgrade of the remote dechlorination system at the Peables Cove Pump Station.

Capital Summary

A five-year capital plan is updated each year (see Capital Expenditures section). Projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects.

Expenditures by CIP Year:

	<u>2017</u>	<u>2018</u>	<u>Total</u>
Projects:			
Pump Station R&R - 52	\$	30,000	\$ 30,000
Pump Station Bond - 407			
Little John Pump Station	\$	900,000	\$ 900,000
Treatment Plant Bond -418			
HVAC upgrade	\$ 25,000	\$ 250,000	\$ 275,000
UV Treatment	\$ 25,000	\$ 850,000	\$ 875,000
Total by CIP Year	\$ 50,000	\$ 2,030,000	\$ 2,080,000

Source of Funds:

	<u>R&R Fund</u>	<u>Bond Issue Year:</u>		<u>Total Funding</u>
		<u>2018</u>	<u>2019</u>	<u>Total</u>
Beginning Balance	\$ 28,788			
2018 Contribution	\$ 100,000			
Total R&R Balance Available	\$ 128,788			
Projects:				
Pump Station R&R - 52	\$ 30,000			\$ 30,000
Pump Station Bond - 407				
Little John Pump Station			\$ 900,000	\$ 900,000
Treatment Plant Bond -418				
HVAC upgrade		\$ 275,000		\$ 275,000
UV Treatment			\$ 875,000	\$ 875,000
Total	\$ 30,000	\$ 275,000	\$ 1,775,000	\$ 2,080,000
Ending Balance	\$ 98,788			

Projections for Rate-Making Purposes

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

Summary

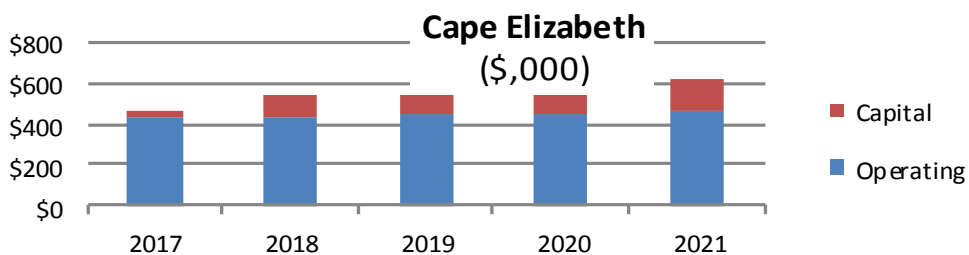
Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 2.5% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2018 5-year capital plan. New debt assumed a 20-year life at 3% (State Revolving Loan Fund bond) or 5%.

Assessment is projected to increase to \$1,898,500 in 2021, a 23% increase over 2018 Budget, with the most significant cost change related to debt service issued to finance capital projects. Operating Reserve balance meets the 25% target balance. Capital R&R balance improves but is projected to be approximately \$300,000 below target

Reserve Fund Balances



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

Funds	2016	2017	2018	2019	2020	2021
Cape Elizabeth	14%	15%	15%	17%	22%	22%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2016	2017	2018	2019	2020	2021
Cape Elizabeth	1.47	1.44	1.52	1.48	1.32	1.35

Projections for Rate-Making Purposes (continued)

Operating Fund:

Wastewater Cape Elizabeth	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected
Assessment Income	\$1,539,840	\$1,632,230	\$1,795,453	\$1,867,271
Interest Income	7,990	7,990	7,990	7,990
FEMA Reimbursement	0	0	0	0
Total Revenue	1,547,830	1,640,220	1,803,443	1,875,261
Expense:				
Contracted Srvs	279,281	286,812	295,109	303,655
Salaries/Wages	178,798	183,268	187,850	192,546
Employee Benefits	88,971	93,420	98,091	102,996
Purchased Power	74,834	77,079	79,777	82,569
Transportation	41,515	42,760	44,257	45,806
Materials/Supplies	38,850	40,016	41,417	42,867
Heat/Fuel Oil	14,503	14,938	15,461	16,002
Biosolids Disposal	18,810	19,374	20,052	20,754
Tele/Oth Utilities	18,327	18,877	19,538	20,222
Chemicals	20,165	20,770	21,497	22,249
Other Expense	4,150	4,275	4,425	4,580
Insurance	5,290	5,449	5,640	5,837
Support Services:				
Administration	184,779	204,028	216,331	222,737
Wastewater Services	110,244	113,551	117,525	121,638
Engineering Services	75,385	77,647	80,365	83,178
Environmental Services	30,187	31,093	32,181	33,307
Water Services	3,075	3,167	3,278	3,393
Capital:				
Debt Service	237,089	272,710	395,398	407,828
Renewal & Replacement	123,577	123,577	123,577	123,577
Total Expense	1,547,830	1,632,811	1,801,769	1,855,741
Annual Surplus (Deficit)	0	7,409	1,674	19,520
Carryforward Surplus	440,347	440,347	447,756	449,430
Period Ending Surplus	440,347	447,756	449,430	468,950
Target	386,958	408,203	450,442	463,935
Above/(Below)	\$53,390	\$39,553	-\$1,012	\$5,015

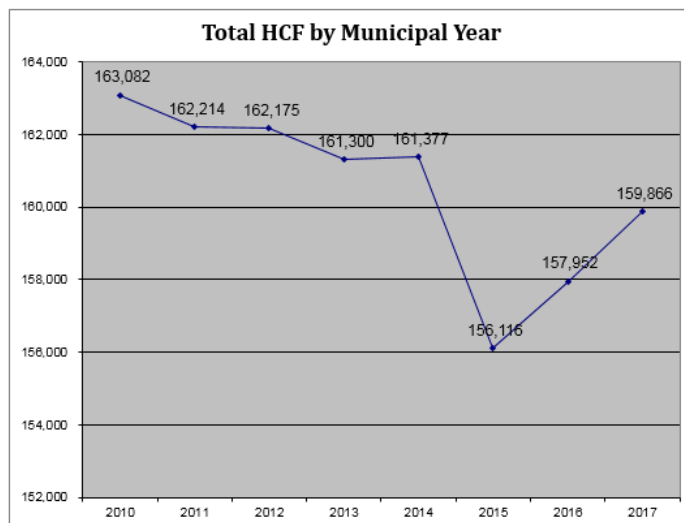
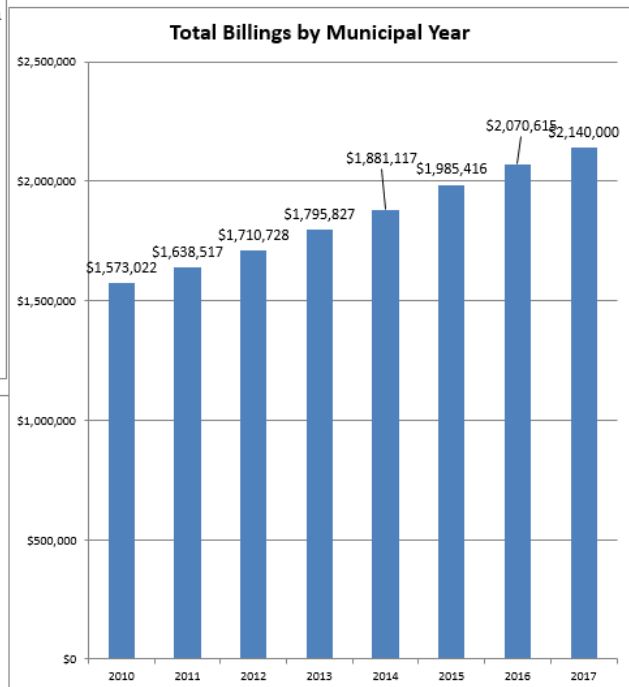
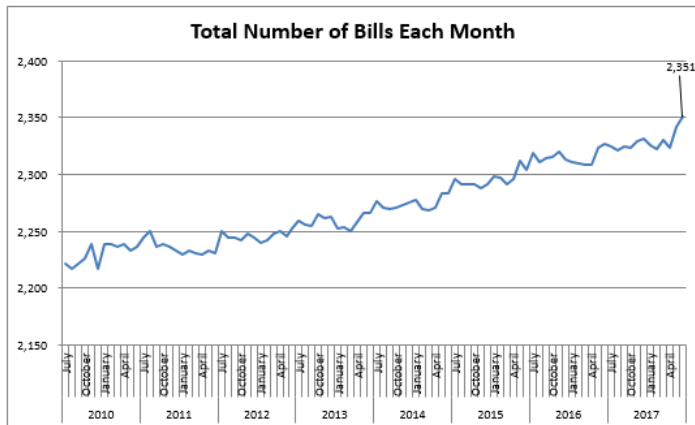
Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$477,250

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2018	28,788	100,000	2,000,000	2,030,000	98,788
2019	98,788	100,000	250,000	350,000	98,788
2020	98,788	100,000	250,000	350,000	98,788
2021	98,788	100,000	0	50,000	148,788

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.

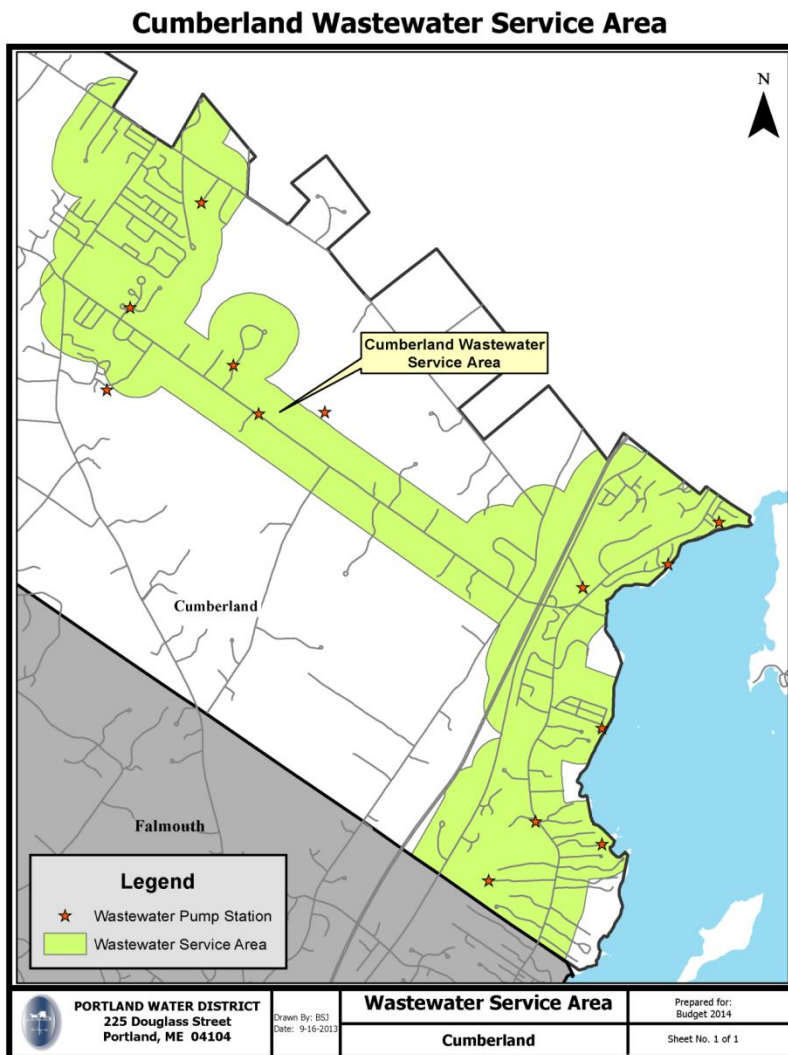
(By Municipal Fiscal Year)



Fund: Wastewater - Cumberland

Background

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



Summary of Services Provided:

Treatment

*0.235 million
gallons/day*

Collection System:

*13 Pump Stations with
29.2 miles of pipe*

Utility Billing Services:

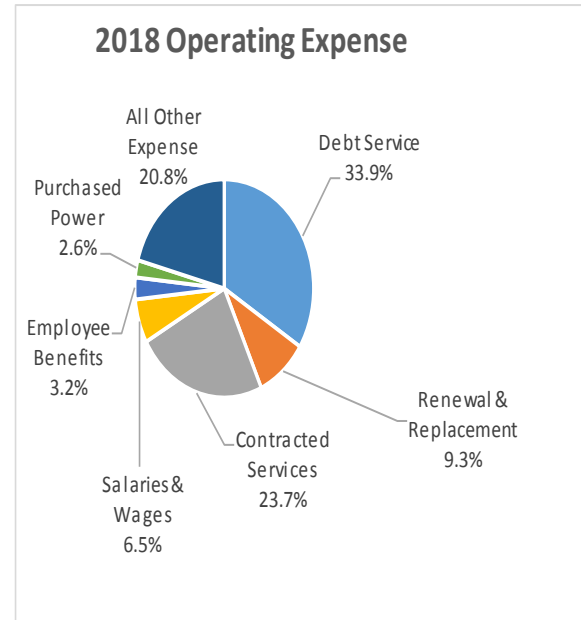
*Annual Billings of
\$989,476 on 1,167
Customers (avg.
\$70.66/month)*

Fund: Wastewater - Cumberland

2018 Financial Summary

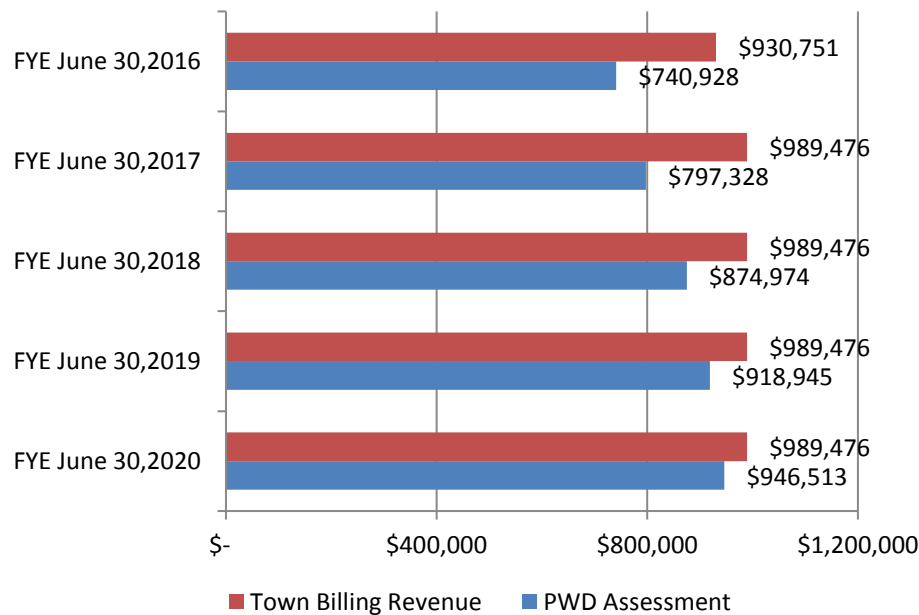
The proposed assessment of \$905,364 is a 7.2% (\$60,780) increase from the previous year. The majority of the increase is due to Falmouth's Mill Creek Pump Station upgrade.

The proposed 2018 Operating Expense and Capital budgets are \$950,042 and \$20,000, respectively. The Operating Expense budget increased \$99,670 or 11.7% mostly due to debt service costs related to the Mill Creek pump station project and renewal and replacement for Route 1 projects.



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 if there are adjustments the sewer billing rates.



Revenue Assumptions:

- Consumption is the 12 months ending June 30, 2017

- Rates Assumed:

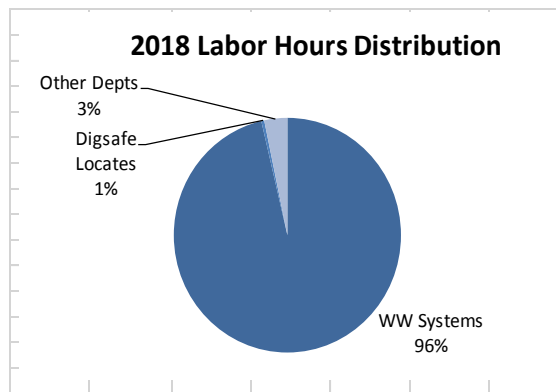
Effective Date:	Base/Per HCF
-----------------	--------------

Jul 2013	\$34.25/\$4.96
Sep 2013	\$34.25/\$5.29
Sep 2015	\$35.58/\$5.29
Sep 2016	\$36.92/\$5.29

2018 Operating Expense Highlights

Salaries/Wages – This expense is budgeted to decrease 0.9% or \$549 to \$61,786. The labor rates in this area increased an average of 3.0% and hours for this fund decreased 5.0% (132 hours).

Employee Benefits – The benefit rate (including FICA) decreased slightly from 54.8% in 2017 to 53.4% in 2018. Overall, employee benefits expense decreased 4.3% (\$1,376).



Contracted Services – This category includes payments to the Town of Falmouth for wastewater treatment and pumping services. Overall Contracted Services increased 0.6% (\$1,381) to a total of \$224,949. The portion of that amount applicable to the Town of Falmouth is \$189,397.

Purchased Power – Average projected power usage was relatively flat while actual energy rates declined from those in the previous budget, overall the budget decreased \$2,459 (9.2%).

Telephone/Other Utilities – The 2018 Budget includes sewer charges previously not charged in prior budgets. That impact is the primary reason for the \$806 (191.9%) increase for this item.

Transportation – Transportation costs decreased by 19.2% (\$5,052). Most of that decrease was related to the reduction in budgeted hours for the vector truck from 200 to 175.

Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer service, billing or computer support) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased \$9,819 or 6.2%.

Administrative costs increased 6.7% (\$6,364) due to the addition of a customer service coordinator position. Wastewater was up \$3,974 (15.3%) as an increased focus on asset management lead to the addition of a wastewater maintenance manager who will coordinate maintenance efforts in this fund. Water Services declined (\$180 or 10.2%) due to reductions labor planned for meter service work.

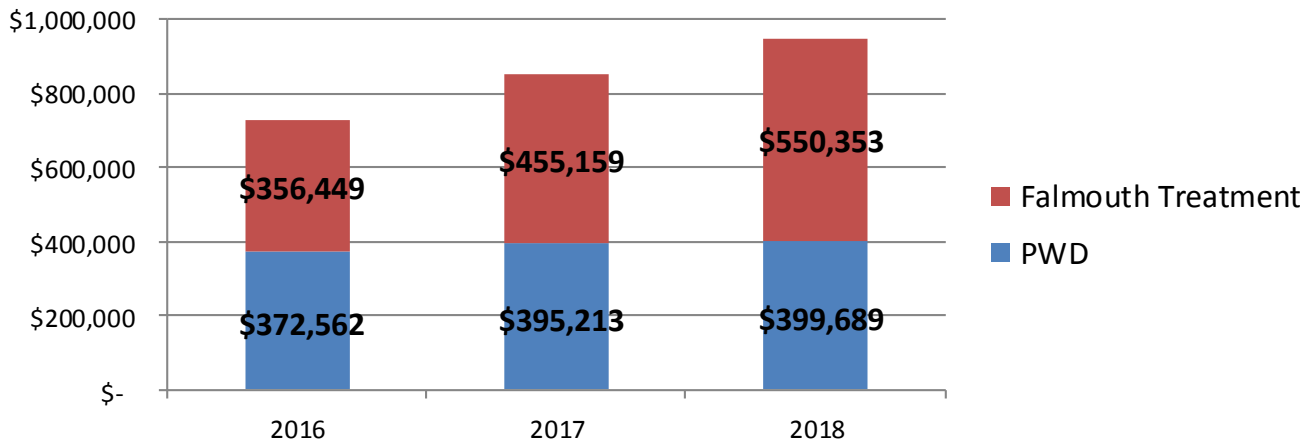
Debt Service – Debt service expense will increase 14.2% (\$40,180) due to new debt related to the Mill Creek Pump Station.

Renewal and Replacement – This is the annual contribution to a fund to finance smaller capital projects. A contribution of \$84,957 (\$19,628 for Cumberland only and \$52,910 for Falmouth assets utilized) will be made in 2018. This is an increase from 2017 and is related to funding for the Route 1 project as well as needs in treatment and pump station assets operated by the Town of Falmouth.

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$750,072	\$422,292	\$844,584	905,364	\$60,780	7.2%
Interest Income	4,125	3,265	5,788	6,768	980	16.9%
Total Revenue	754,197	425,557	850,372	912,132	61,760	7.3%
Salaries & Wages	63,109	25,788	62,335	61,786	-549	-0.9%
Employee Benefits	31,414	13,378	32,205	30,829	-1,376	-4.3%
Contracted Services	225,885	101,317	223,568	224,949	1,381	0.6%
Heat/Fuel Oil	5	0	150	332	182	121.3%
Insurance	3,329	2,386	3,336	3,114	-222	-6.7%
Materials & Supplies	12,428	1,223	7,850	7,850	0	0.0%
Other Expense	50	0	0	0	0	n/a
Purchased Power	25,183	16,061	26,706	24,247	-2,459	-9.2%
Tele/Other Utilities	510	322	420	1,226	806	191.9%
Transportation	21,293	9,786	26,282	21,230	-5,052	-19.2%
SS - Administration	87,488	45,482	95,352	101,716	6,364	6.7%
SS - Engineering Services	17,933	9,622	34,155	33,816	-339	-1.0%
SS - Wastewater Services	26,296	14,605	25,906	29,880	3,974	15.3%
SS - Water Services	1,408	511	1,772	1,592	-180	-10.2%
Operating Expense	516,331	240,481	540,037	542,567	2,530	0.5%
Debt Service	184,723	145,253	282,338	322,518	40,180	14.2%
Renewal & Repl - Direct	19,628	9,814	19,628	72,538	52,910	269.6%
Renewal & Repl - Indirect	8,329	4,185	8,369	12,419	4,050	48.4%
Total Expense	729,011	399,733	850,372	950,042	99,670	11.7%
Current Year Surplus (Deficit)	25,186	25,824	0	-37,910		
Transfer to R&R	-25,186	0	0	0		
Prior Year Surplus	328,678	328,678	360,053	369,856		
Accumulated Surplus	328,678	354,502	360,053	331,946		

Contracted Services – Treatment Services from Town of Falmouth

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

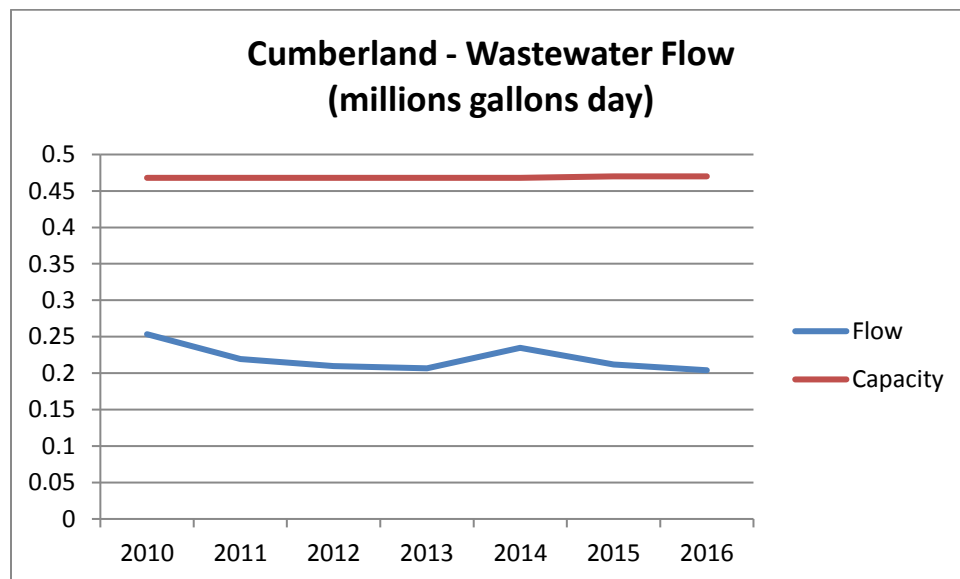


Operation Summary

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

Year	Cumberland Flow	Falmouth WWTF Flow	% Cumberland Flow
2016	0.204 mgd	0.872 mgd	23.4%

FWWTF Capacity	Cumberland Cap (30%)	% Capacity Used	Capacity Remaining
1.56 mgd	0.468 mgd	43.6%	0.264 mgd



Wastewater Conveyance – collectors, interceptors and pumping stations

Parameter	2017 Actual to Sept	2018 Projected
Preventive Work Orders	176	185
Corrective Work Orders	11	15
Wet wells cleaned	34	40
Debris removed (tons)	48	40
Dry Weather Overflows	0	0

Operation Summary (continued)

2017 Other Highlights

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

2018 Work Plan

- The Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis unless experience dictates otherwise.

Capital Summary

A five-year capital plan is updated each year (see Capital Expenditures section). Projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects.

Expenditures by CIP Year:			
		<u>2018</u>	<u>Total</u>
Projects:			
Pump Station R&R - 41		\$ 20,000	\$ 20,000
Total by CIP Year		\$ 20,000	\$ 20,000
Source of Funds:			
	<u>R&R Fund</u>	<u>Bond Issue Year:</u>	<u>Total Funding</u>
		<u>2018</u>	<u>Total</u>
Beginning Balance	\$ 174,274		
2018 Contribution	\$ 18,538		
Total R&R Balance Available	\$ 192,812		
Projects:			
Pump Station R&R - 41	\$ 20,000		\$ 20,000
Total	\$ 20,000	\$ -	\$ 20,000
Ending Balance	\$ 172,812		

Projections for Rate-Making Purposes

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

Major Assumptions:

The assumptions incorporated in the projections are as follows:

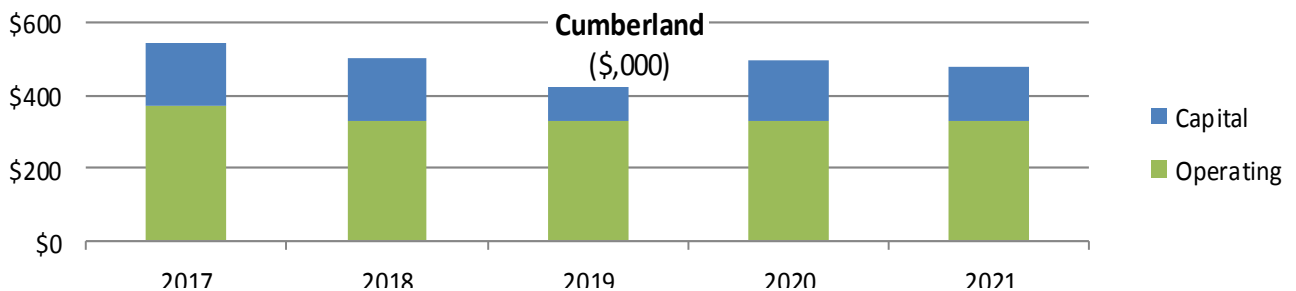
- Salary increases of 2.5% each year. Maintain same number of employees.
- Benefit increases of 5.0% each year.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2018 5-year capital plan. New debt assumed a 20-year life at 3% (State Revolving Loan Fund bond) or 5%.

Assessment is projected to increase to \$984,514 in 2021, an 8.7% increase over 2018 Budget, with the most significant cost change related to debt service issued to finance capital projects. Operating Reserve balance meets the 25% target balance. Capital R&R balance is project to improve but would be approximately \$300,000 below target

Operating Reserve balance meets the 25% target balance. Capital R&R balance is projected to be approximately \$230,000 below target

Percent of budget is high and debt service ratio is low due to Cumberland's request to upgrade the Mill Creek pump station.

Reserve Fund Balance



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

Funds	2016	2017	2018	2019	2020	2021
Cumberland	25%	33%	34%	35%	36%	35%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2016	2017	2018	2019	2020	2021
Cumberland	1.29	1.10	1.15	1.14	1.13	1.14

Projections for Rate-Making Purposes (continued)

Operating Fund:

Wastewater Cumberland	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected
Assessment Income	\$905,364	\$932,525	\$960,501	\$984,514
Interest Income	6,768	6,768	6,768	6,768
FEMA Reimbursement	0	0	0	0
Total Revenue	912,132	939,293	967,269	991,282
Expense:				
Falmouth Treatment	189,397	195,079	200,931	206,959
Salaries/Wages	61,786	63,331	64,914	66,537
Employee Benefits	30,829	32,370	33,989	35,688
Contracted Svcs	35,552	36,619	37,718	38,850
Transportation	21,230	21,867	22,523	23,199
Purchased Power	24,247	24,974	25,723	26,495
Materials/Supplies	7,850	8,086	8,329	8,579
Insurance	3,114	3,207	3,303	3,402
Tele/Oth Utilities	1,226	1,263	1,301	1,340
Heat/Fuel Oil	332	342	352	363
Support Services:				
Administration	101,716	107,186	110,329	113,566
Engineering Services	33,816	34,830	35,875	36,951
Wastewater Services	29,880	30,776	31,699	32,650
Water Services	1,592	1,640	1,689	1,740
Capital:				
Debt Service	322,518	330,467	345,164	346,322
Renewal & Replacement	84,957	46,957	46,957	46,957
Total Expense	950,042	938,994	970,796	989,598
Annual Surplus (Deficit)	-37,910	299	-3,527	1,684
Transfer to R&R				
Carryforward Surplus	369,856	331,946	332,245	328,718
Period Ending Surplus	331,946	332,245	328,718	330,402
Target	237,511	234,749	242,699	247,400
Above/(Below) Target	94,436	97,497	86,019	83,003

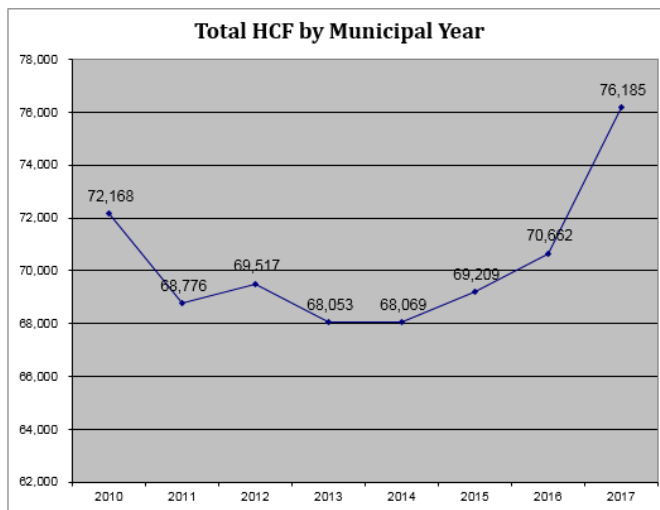
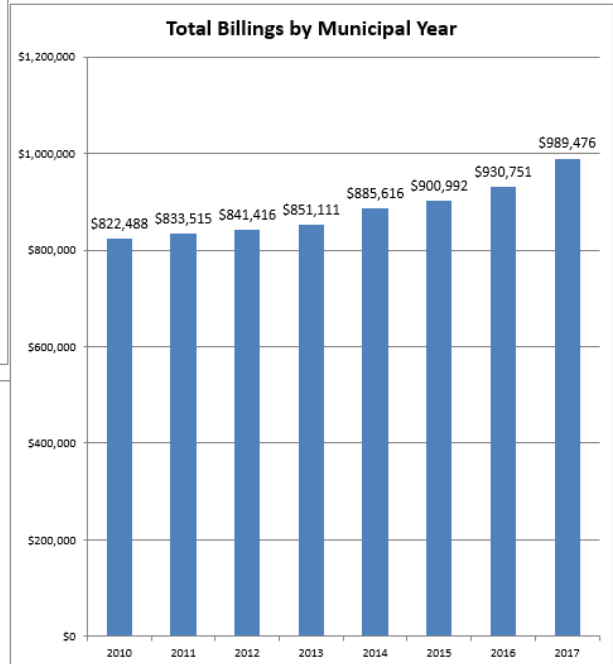
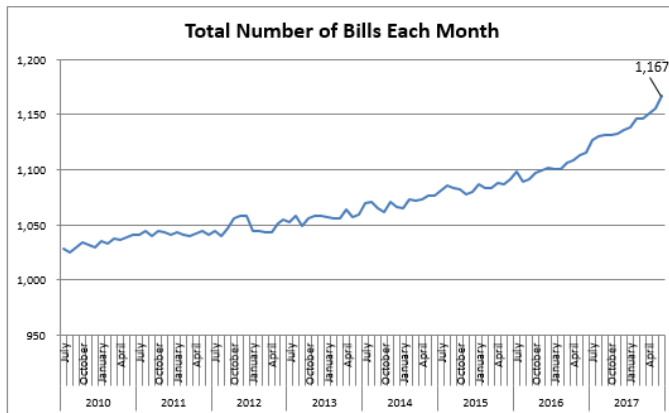
Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$388,000

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2018	174,274	19,538	0	20,000	173,812
2019	173,812	19,000	195,000	220,000	167,812
2020	167,812	19,000	0	20,000	166,812
2021	166,812	19,000	120,000	155,000	150,812

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.

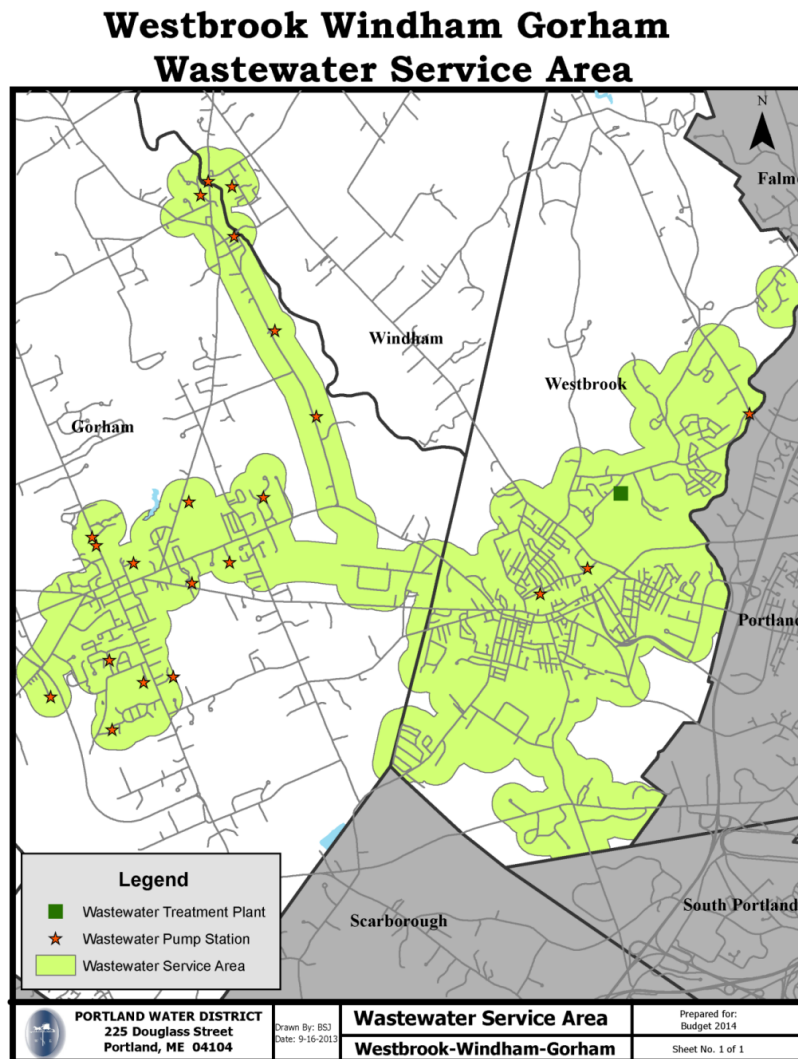
(By Municipal Fiscal Year)



Fund: Wastewater - Gorham

Background

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



Summary of Services Provided:

Treatment

*0.471 million
gallons/day*

Collection System

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

Utility Billing

*Annual Billings of
\$1,121,200 on 1,804
Customers (avg.
\$51.79/month)*

Fund: Wastewater - Gorham

2018 Financial Summary

The proposed assessment is \$1,106,148; this is the same assessment since 2013 and was better than the forecasted assessment provided the town last year.

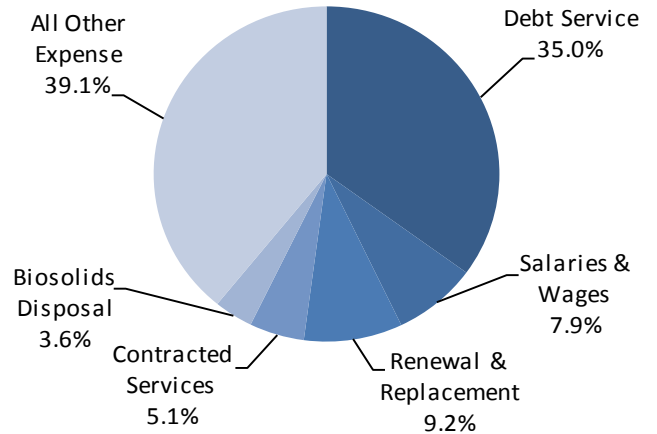
The proposed 2017 Operating Expense and Capital budgets are \$1,136,778 and \$33,400, respectively.

The Operating Expense budget increase is \$5,065 or 0.4%. Much of the Fund's expense comes joint use facilities with Westbrook and Windham. Gorham's percentage of the wastewater flows were lower in this budget than the prior year thus minimizing an expense increases from those facilities.

The Capital projects include routine and equipment renewal and replacements at

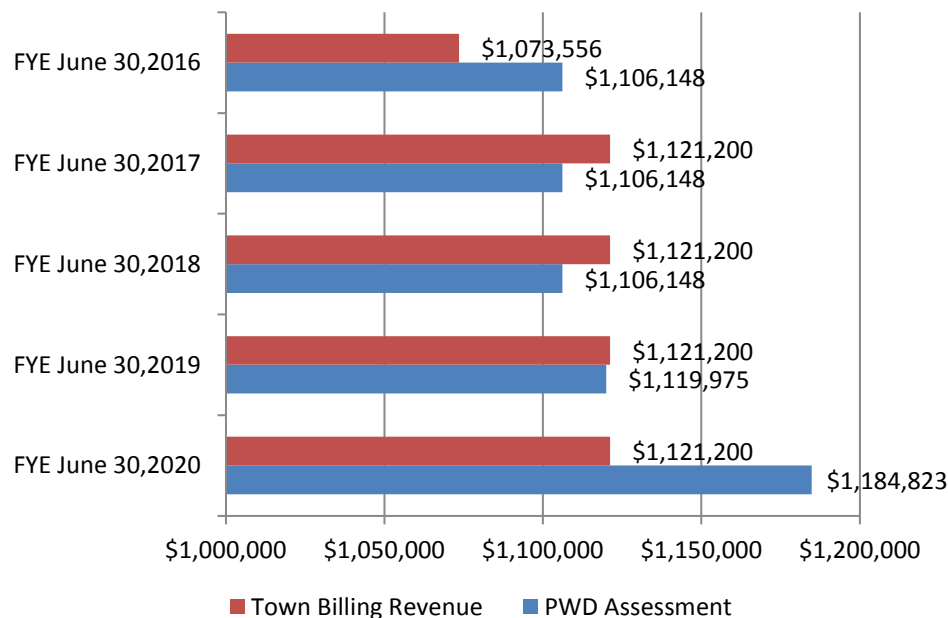
wastewater pump stations and the treatment plant.

2018 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, 2017

- Rates Assumed:

Effective Date: Base/Per HCF

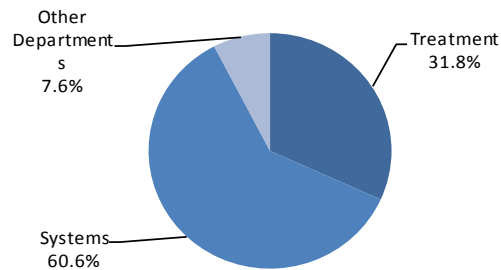
Nov 2006 \$13.74/6.29

No change in rates since 11/1/2006.

2018 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 decreased \$2,667 (2.9%) to \$89,519. The average wage rate increased 3.0% and while the labor hours decreased 4.6% (404 hours). This reduction was due to the headcount reductions at the treatment plant.

2018 Labor Hours Distribution



Employee Benefits – The benefit rate (including FICA) decreased slightly from 54.8% in 2017 to 53.4% in 2018. Overall, employee benefits expense decreased 5.5% (\$2,595).

Biosolids Disposal – A major upgrade to the dewatering system at the Westbrook Regional WWTF is expected to lower disposal expense by 23.8%. In addition, Gorham's share of allocated treatment costs decreased from 16.5% in 2017 to 15.75% in 2018. The result was a 25.9% (\$14,507) decrease in expense.

Contracted Services – The primary reason for the increase was to bring maintenance items including snow removal in line with actual expenditures.

Purchased Power – The budget for power is expected to decrease by 10.4% or \$5,510. This decrease was due to decreases in rates for both energy and delivery at the treatment plant. Those decreases were compounded, to a lesser degree, by the decrease in Gorham's flow percentage.

Transportation – The vast majority of the decrease (\$6,863) is due to a reduction in vector truck hours from 250 to 175 in the 2018 Budget.

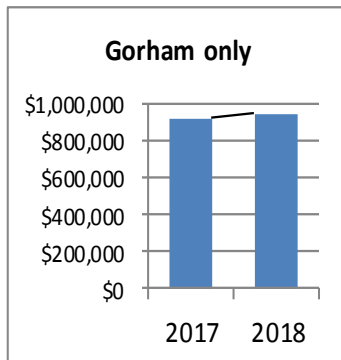
Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased only \$130 or 0.5%.

The Administrative allocation decreased 1.7%, as the addition of a new customer service coordinator was more than offset by a lower allocation to this fund due to its lower overall cost increase in relation to other funds. Environmental costs related to laboratory tests of treatment effluent declined (3.6%) due to the lower flow rate. In Wastewater, to increase the focus on asset management, the chief operator position in treatment was replaced with a wastewater maintenance manager. This change shifted costs to this line (up \$3,444 or 7.0%) away from the salaries/wages and employee benefits lines above. Water Services declined (\$430 or 14.4%) due to reductions labor planned for meter service work.

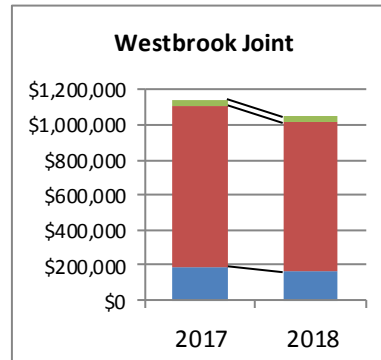
Debt Service - The annual principal and interest payments on bonds issued to finance capital projects. This item decreased 0.7% (\$2,995) as older bond issues were retired.

Renewal & Replacement - Dollars put aside to fund smaller capital projects. A contribution of \$104,855 will be made in 2018.

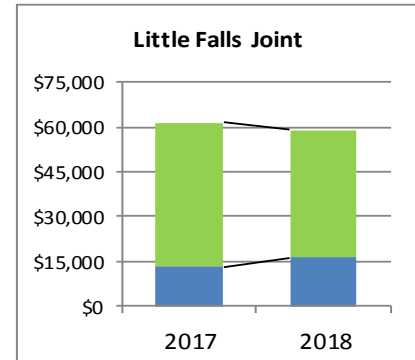
	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$1,106,148	\$553,074	\$1,106,148	\$1,106,148	\$0	0.0%
Interest Income	8,034	6,229	10,365	13,030	2,665	25.7%
<u>Other Income</u>	<u>17,560</u>	<u>3,629</u>	<u>15,200</u>	<u>17,600</u>	<u>2,400</u>	<u>15.8%</u>
Total Revenue	1,131,742	562,932	1,131,713	1,136,778	5,065	0.4%
Salaries & Wages	76,304	49,885	92,186	89,519	-2,667	-2.9%
Employee Benefits	37,479	25,910	47,588	44,993	-2,595	-5.5%
Biosolids Disposal	56,636	30,228	55,942	41,435	-14,507	-25.9%
Chemicals	11,590	8,993	11,758	12,074	316	2.7%
Contracted Services	58,402	24,419	56,795	58,346	1,551	2.7%
Heat/Fuel Oil	4,857	3,894	4,885	5,217	332	6.8%
Insurance	1,619	831	1,680	1,674	-6	-0.4%
Materials & Supplies	25,960	7,765	24,865	24,976	111	0.4%
Other Expense	970	740	976	935	-41	-4.2%
Purchased Power	45,532	32,282	52,755	47,245	-5,510	-10.4%
Tele/Other Utilities	2,816	1,091	3,423	3,835	412	12.0%
Transportation	17,828	10,895	29,471	22,608	-6,863	-23.3%
SS - Administration	126,062	65,940	138,198	135,785	-2,413	-1.7%
SS - Engineering Services	37,372	20,195	70,646	70,645	-1	0.0%
SS - Environmental Services	17,969	9,725	20,049	19,319	-730	-3.6%
SS - Wastewater Services	44,779	27,902	49,390	52,834	3,444	7.0%
<u>SS - Water Services</u>	<u>2,350</u>	<u>864</u>	<u>2,982</u>	<u>2,552</u>	<u>-430</u>	<u>-14.4%</u>
Operating Expense	568,525	321,559	663,589	633,992	-29,597	-4.5%
Debt Service	394,970	194,088	400,926	397,931	-2,995	-0.7%
Renewal & Replacement - Direct	83,815	27,101	54,202	86,690	32,488	59.9%
<u>Renewal & Replace - Indirect</u>	<u>12,896</u>	<u>6,498</u>	<u>12,996</u>	<u>18,165</u>	<u>5,169</u>	<u>39.8%</u>
Total Expense	1,060,206	549,246	1,131,713	1,136,778	5,065	0.4%
Current Year Surplus (Deficit)	71,536	13,686	0	0		
Transfer to R&R	-71,536	0	0	0		
<u>Prior Year Surplus</u>	<u>310,000</u>	<u>310,000</u>	<u>459,974</u>	<u>328,583</u>		
Accumulated Surplus	310,000	323,686	459,974	328,583		



Gorham Only – Expense up 2.8% or \$26.3k.



Westbrook JT – Expense down 8.6%, Gorham's share of expense reduced (16.5% to 15.75%), net expense down \$24.2k (12.8%).



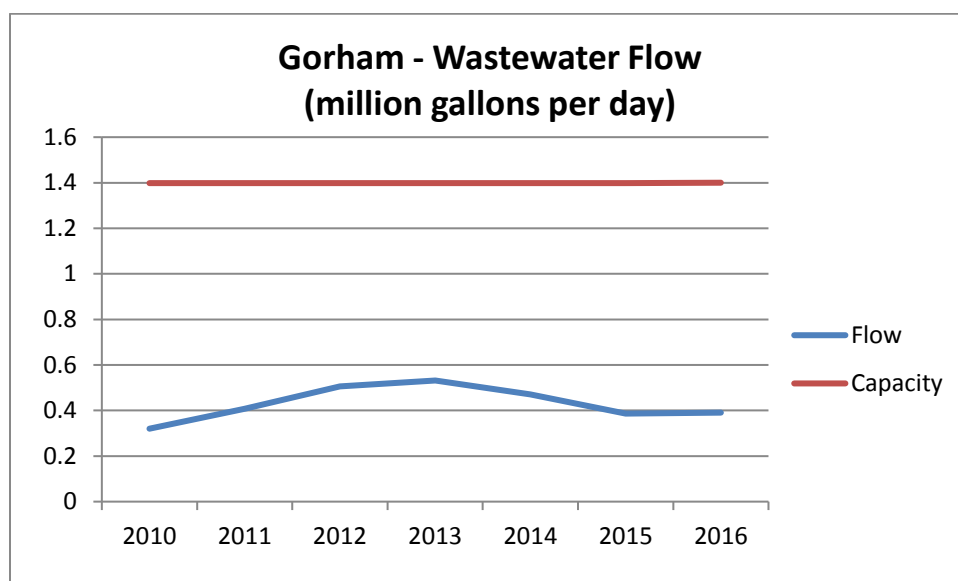
Little Falls JT – Expense down \$2.6k, Gorham's share of expense up (21.5% to 27.5%), net expense up \$3.0k (22.4%).

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	2016 Gorham Flow	Westbrook WWTF Flow	% Gorham Flow
Total Gorham Flow	0.39 mgd	2.46 mgd	15.9%

WGWWTF Capacity	Gorham Capacity (30.8%)	2016 - % Capacity Used	Capacity Remaining
4.54 mgd	1.398 mgd	28%	1.008 mgd



Wastewater Conveyance – interceptors and pumping stations

Parameter	2017 Actual to Sept	2018 Projected
Preventive Work Orders	201	190
Corrective Work Orders	14	20
Wet wells cleaned	31	30
Debris removed (tons)	31	35
Dry Weather Overflows	0	0

Operation Summary (continued)

2017 Other Highlights

- The Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- The aeration system at the Westbrook/Gorham Regional WWTF was evaluated in 2015. Several possible approaches to design of the new system were identified and are dependent on future phosphorus permit limits. The loadings to the treatment facility have increased and are creating some operational challenges. Design of the new system is anticipated in 2019 with construction of the upgraded system is currently contemplated for 2021.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis.
- Emergency generators installed at existing pump stations, and the installation of generators as part of new installations have reduced the need to respond to these critical stations during system power failures, improving the level of service to customers.
- The odor control system at the Mallison Falls Pump Station has worked well since it was installed in the summer of 2012. We have received no odor complaints since its installation. We continue to maintain the system and replace the odor removing media on an annual basis.
- The existing dewatering equipment will be replaced by a new screw press. The project is expected to be completed in the first quarter of 2018. The new equipment will be less operator and maintenance intensive and will increase the throughput and dewatered sludge cake %TS (will reduce sludge hauling costs).

2018 Work Plan

- The Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis.
- The treatment plant's sludge dewatering system is being upgraded and should be commissioned in early 2018. Operational and cost savings benefits are expected as the new equipment will have slightly increased capacity and is expected to produce a drier end product (less water to haul).

Capital Summary

A five-year capital plan is updated each year (see Capital Expenditures section). Projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects.

Expenditures by CIP Year:

	<u>2018</u>	<u>Total</u>
Projects:		
Gorham Only Pump Station - 60	\$ 15,000	\$ 15,000
Little Falls (prorated) - 180	\$ 3,000	\$ 3,000
Treatment Plant (prorated - 416)	\$ 15,400	\$ 15,400
Total by CIP Year	<u>\$ 33,400</u>	<u>\$ 33,400</u>

Source of Funds:

	<u>R&R Fund</u>	<u>Bond Issue Year:</u> <u>2018</u>	<u>Total Funding</u> <u>Total</u>
Beginning Balance	\$ 845,760		
2018 Contribution	\$ 86,690		
Total R&R Balance Available	<u>\$ 932,450</u>		
Projects:			
Gorham Only Pump Station - 60	\$ 15,000		\$ 15,000
Little Falls (prorated) - 180	\$ 3,000		\$ 3,000
Treatment Plant (prorated - 416)	\$ 15,400		\$ 15,400
Total	<u>\$ 33,400</u>	\$ -	<u>\$ 33,400</u>
Ending Balance	<u>\$ 899,050</u>		

Prorated Projects: Costs of projects done on infrastructure used by multiple communities are 'prorated' between the municipalities based on relative design capacity.

Projections for Rate-Making Purposes

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

Major Assumptions:

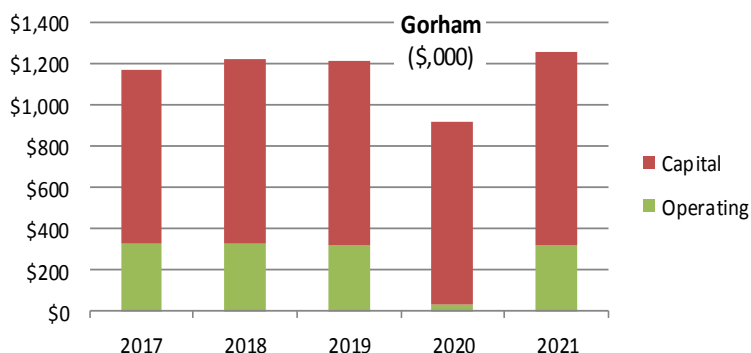
The assumptions incorporated in the projections are as follows:

- Salary increases of 2.5% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2018 5-year capital plan. New debt assumed a 20-year life at 3% (State Revolving Loan Fund bond) or 5%.

Assessment is projected to increase to \$1,435,433 in 2021, a 30% increase over 2018 Budget, with the most significant cost change related to debt service issued to finance capital projects. Though the Operating Reserve balance currently meets the target, the balance will dip below the target by 2021 due to the growth in the budget. Capital R&R balance improves but is projected to be approximately \$60,000 better than target.

Percent of budget is high and debt service ratio is low due to Gorham's request to connect the Little Falls area to the Westbrook Regional Treatment Plant and significant upcoming upgrades at the treatment plant.

Reserve Fund Balances



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

Funds	2016	2017	2018	2019	2020	2021
Gorham	37%	35%	35%	35%	38%	44%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2016	2017	2018	2019	2020	2021
Gorham	1.43	1.17	1.26	1.22	1.23	1.16

Projections for Rate-Making Purposes (continued)

Operating Fund:

Wastewater Gorham	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected
Assessment Income	\$1,106,148	\$1,133,802	\$1,235,844	\$1,421,221
Other Income	17,600	17,600	17,600	17,600
Interest Income	13,030	13,030	13,030	13,030
Total Revenue	1,136,778	1,164,432	1,266,474	1,451,851
Expense:				
Contracted Svcs	58,346	60,096	61,899	63,756
Salaries/Wages	89,519	91,757	94,051	96,402
Employee Benefits	44,993	46,343	47,733	49,165
Purchased Power	47,245	47,245	48,662	50,122
Biosolids Disposal	41,435	42,678	43,958	45,277
Transportation	22,608	23,286	23,985	24,705
Chemicals	12,074	12,436	12,809	13,193
Materials/Supplies	24,976	25,725	26,497	27,292
Heat/Fuel Oil	5,217	5,374	5,535	5,701
Tele/Oth Utilities	3,835	3,950	4,069	4,191
Insurance	1,674	1,724	1,776	1,829
Other Expense	935	963	992	1,022
Administration	135,785	144,527	148,723	153,045
Engineering Services	70,645	79,164	81,539	83,985
Environmental Services	19,319	19,899	20,496	21,111
Wastewater Services	52,834	54,419	56,052	57,734
Water Services	2,552	2,629	2,708	2,789
Debt Service	397,931	410,085	476,127	646,232
Renewal & Replacement	104,855	104,855	104,855	104,855
Total Expense	1,136,778	1,177,155	1,262,466	1,452,406
Annual Surplus (Deficit)	0	-12,723	4,008	-555
Transfer to R&R				
Carryforward Surplus	328,583	328,583	315,860	319,868
Period Ending Surplus	328,583	315,860	319,868	319,313
Target	284,195	294,289	315,617	363,102
Above Target	\$44,389	\$21,571	\$4,252	(\$43,789)

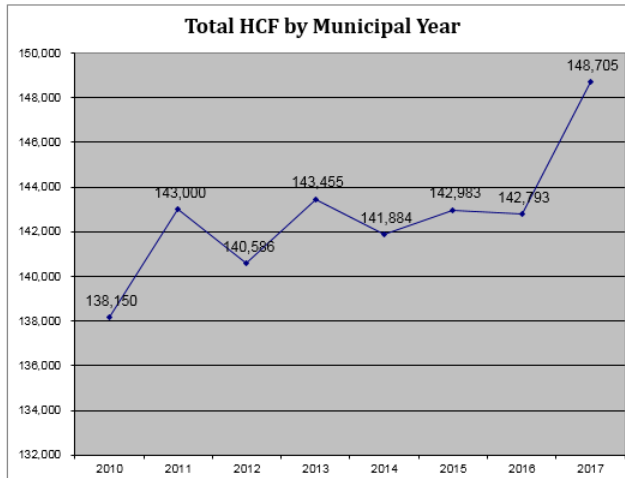
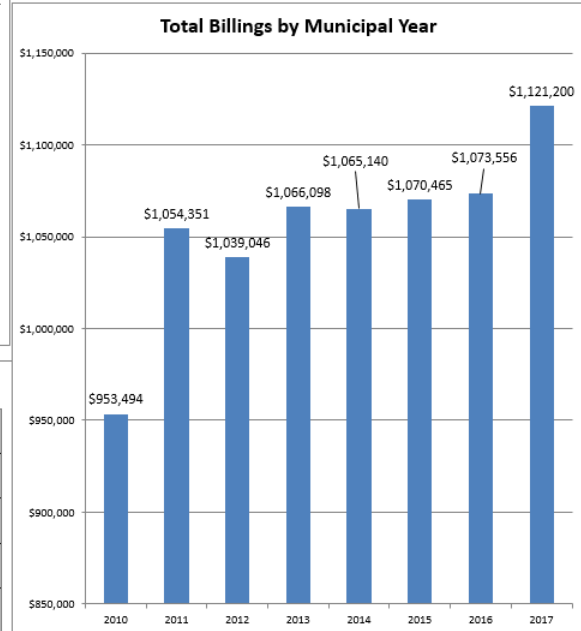
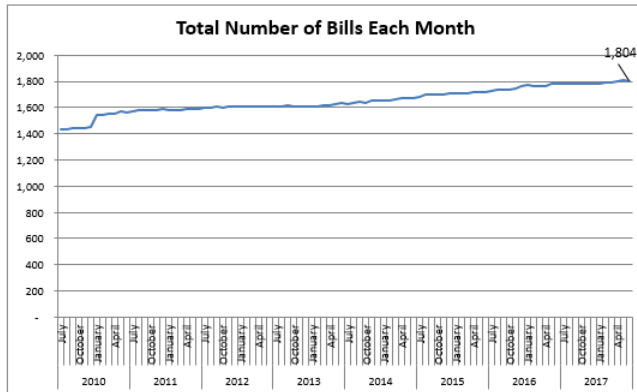
Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$880,800

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2018	845,760	86,690	0	33,400	899,050
2019	899,050	86,690	366,000	453,400	898,340
2020	898,340	86,690	2,861,000	2,956,780	889,250
2021	889,250	86,690	0	35,400	940,540

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)

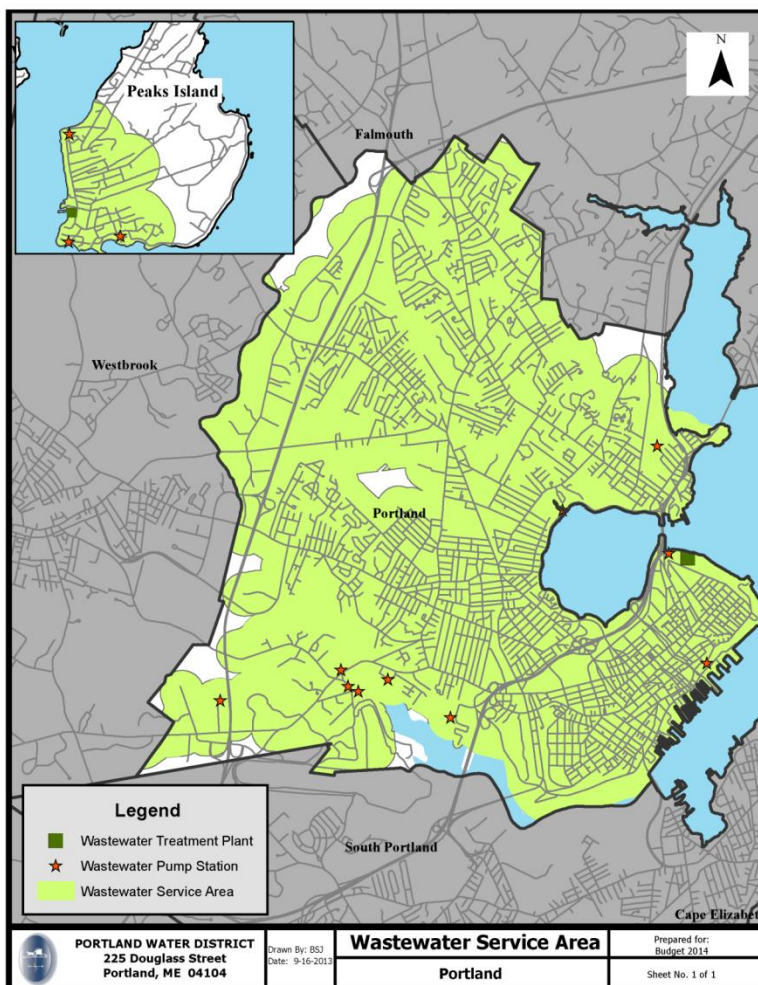


Fund: Wastewater - Portland

Background

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

Portland Wastewater Service Area



Summary of Services

Provided:

Treatment

Mainland: 18.07 million gallons/day

Peaks Island: 0.104 million gallons/day

Collection System

14 Pump Stations with
23.5 miles of pipe

Storm Water system

Peaks Island with 1.9 miles of pipe

Utility Billing

Annual Billings of
\$22,191,423 on 17,081
Customers (avg.
\$108.26/month)

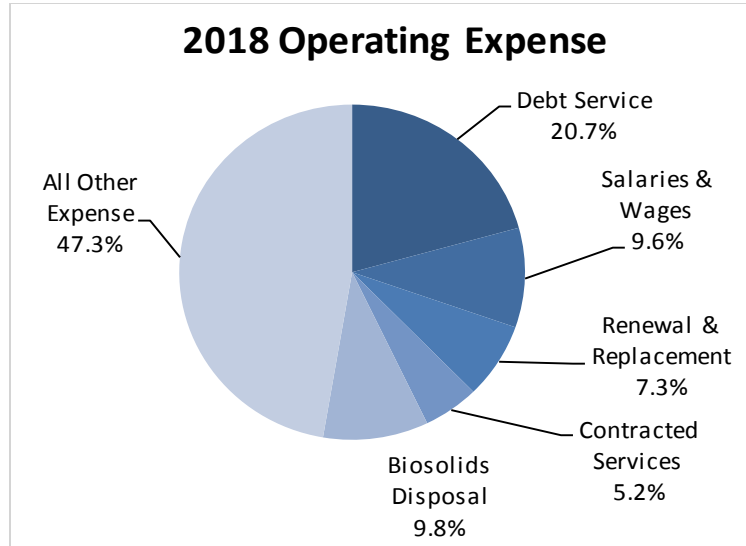
Fund: Wastewater - Portland

2018 Financial Summary

The city's assessment will increase 3.4% or \$406,452 to \$12,248,424. The assessment is less than the forecasted assessment provided to the city last year.

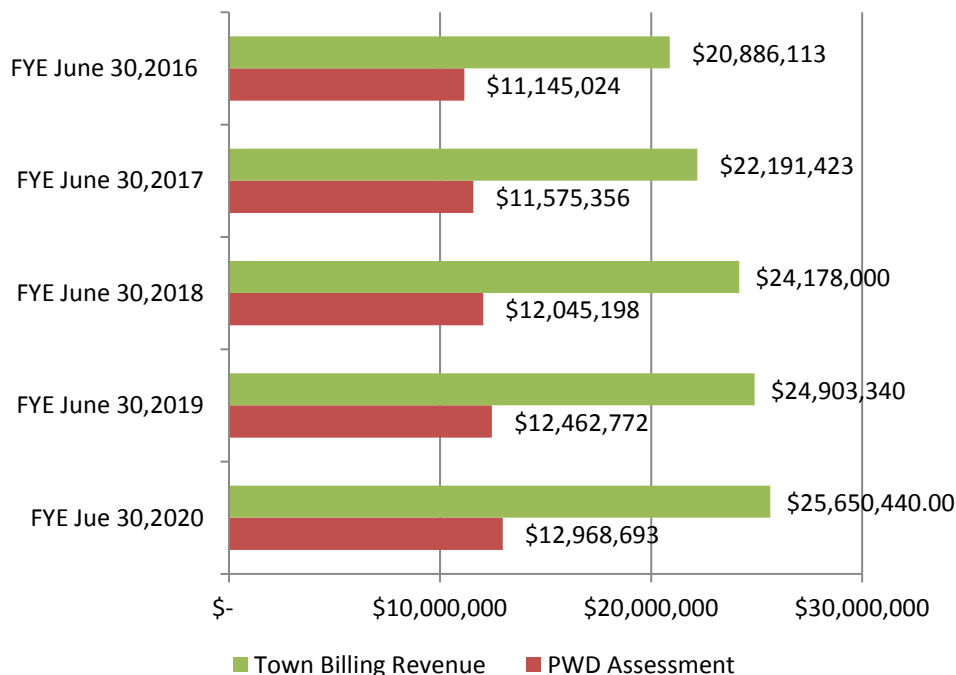
The proposed 2018 Operating Expense and Capital budgets are \$12,418,024 and \$3,140,000, respectively.

The Operating Expense budget is \$392,143, or 3.3%, higher than the previous year. Departmental expense increased by 3.7% or \$317,197. Debt service increased \$20,198 (0.8%) and renewal & replacement (direct and indirect) will be \$906,950.



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, 2017

- Rates Assumed:

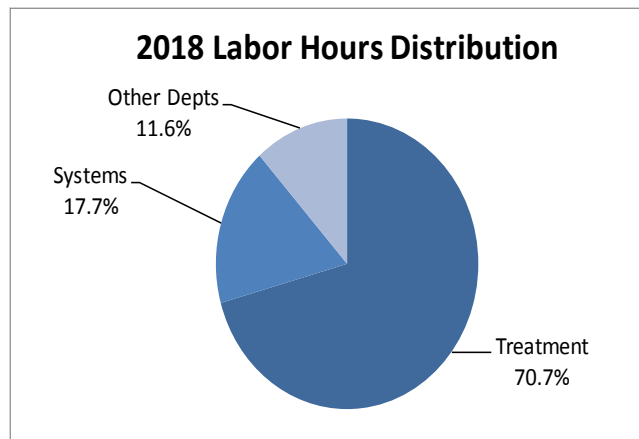
Effective Date:	Base/Per HCF
Jul 1 2013	\$8.35
Jul 1 2014	\$8.81
Jul 1 2015	\$9.70
Jan 1 2016	\$8.20
Jan 1 2017	\$9.35
Jul 1 2017	\$9.65

Assumed \$.30 increase in July 2018, 2019 & 2020.

2018 Operating Expense Highlights

Salaries/Wages – Budgeted expenses increased 3.5% or \$40,868 to \$1,192,235. The increase was primarily due to the average wage rate increase of 3.0% and a rise in the number of hours budgeted to this area including the addition of the Industrial Pre-Treatment (IPT) position.

Employee Benefits – The benefit rate (including FICA) decreased slightly from 54.8% in 2017 to 53.4% in 2018. Overall, employee benefits expense increased 0.9% (\$5,083).



Biosolids Disposal – The budget for this item was increased 11.7% (\$128,425). The budget assumes an increase in volume (wet tons) of 8.9% due in large part to an anticipated drop in the assumption for “percent total solids” (%TS) from 23.0% in the 2017 Budget to 21.0% in the 2018 Budget. The disposal rate (per wet ton) is expected to increase 2.3% over the prior budget.

Chemicals – Overall, this category is down \$25,139 or 4.9%. The majority of decrease is related to a projected decrease in chemical use for the disinfection process, the odor control system, and for the control of settleability in the activated sludge process. These results can be attributed to both the upgraded aeration system and efforts to optimize the odor control system.

Heat/Fuel Oil – The majority of the expense in this category involves pipeline delivered natural gas at the East End WWTF. The budget, an increase of \$8,515 (7.8%), assumes an increase in the per unit price from the previous budget while anticipating similar usage.

Purchased Power – Power is expected to increase 1.3% (\$13,851). Power usage is expected to be higher with the new aeration process and with efforts to control nitrogen levels in the treatment plant’s effluent. However, lower budgeted rates offset most of that increase.

Transportation – The budget is lower in 2018 (\$19,304 or 20.6%). This is due to a reduction in vehicle hours in Portland done so the budget is more in line with actual vehicle utilization.

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 4.0% (\$117,769).

Administrative costs increased 2.4% (\$32,434) due to the addition of a customer service coordinator position. The Environmental Services allocation increased due to the impact of the addition of the IPT position (effective July 1, 2018). In Wastewater, to increase the focus on asset management, a chief operator position in treatment was replaced with a wastewater maintenance manager. This change shifted costs to this line (up \$58,207 or 7.3%) away from the salaries/wages and employee benefits lines above. Water Services declined (\$4,922 or 14.6%) due to reductions labor planned for meter service work.

Debt Service – This is the annual principal and interest payments on bonds issued to finance capital projects. The expense will increase \$20,198 (0.8%) in 2018.

Renewal and Replacement – This is the fund's annual contribution to a fund to finance smaller capital projects. A contribution of \$906,950 will be made in 2018.

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$11,308,740	\$5,920,986	\$11,841,972	\$12,248,424	\$406,452	3.4%
Interest Income	26,584	31,919	43,909	67,800	23,891	54.4%
<u>Other Income</u>	<u>112,816</u>	<u>33,496</u>	<u>140,000</u>	<u>101,800</u>	<u>-38,200</u>	<u>-27.3%</u>
Total Revenue	11,448,140	5,986,401	12,025,881	12,418,024	392,143	3.3%
Salaries & Wages	1,116,799	551,964	1,151,367	1,192,235	40,868	3.5%
Employee Benefits	524,832	272,685	579,216	584,299	5,083	0.9%
Biosolids Disposal	1,124,374	756,178	1,094,386	1,222,811	128,425	11.7%
Chemicals	553,662	267,321	509,568	484,429	-25,139	-4.9%
Contracted Services	513,789	238,386	610,548	648,033	37,485	6.1%
Heat/Fuel Oil	97,639	60,968	108,960	117,475	8,515	7.8%
Insurance	26,219	13,163	26,247	32,726	6,479	24.7%
Materials & Supplies	274,019	170,107	282,559	284,168	1,609	0.6%
Other Expense	11,828	-5,435	16,950	16,825	-125	-0.7%
Purchased Power	917,394	514,252	1,093,267	1,107,118	13,851	1.3%
Tele/Other Utilities	97,905	53,001	110,096	111,777	1,681	1.5%
Transportation	59,106	23,476	93,866	74,562	-19,304	-20.6%
SS - Administration	1,258,164	656,609	1,375,975	1,408,409	32,434	2.4%
SS - Engineering Services	242,322	135,933	483,536	494,545	11,009	2.3%
SS - Environmental Services	239,012	121,666	255,122	276,163	21,041	8.2%
SS - Wastewater Services	839,606	449,387	794,378	852,585	58,207	7.3%
<u>SS - Water Services</u>	<u>26,780</u>	<u>9,726</u>	<u>33,666</u>	<u>28,744</u>	<u>-4,922</u>	<u>-14.6%</u>
Operating Expense	7,923,450	4,289,387	8,619,707	8,936,904	317,197	3.7%
Debt Service	2,068,756	1,237,651	2,553,972	2,574,170	20,198	0.8%
Renewal & Replacement - Direct	725,000	360,000	720,000	720,000	0	0.0%
<u>Renewal & Replace - Indirect</u>	<u>131,942</u>	<u>66,101</u>	<u>132,202</u>	<u>186,950</u>	<u>54,748</u>	<u>41.4%</u>
Total Expense	10,849,148	5,953,139	12,025,881	12,418,024	392,143	3.3%
Current Year Surplus (Deficit)	598,992	33,262	0	0		
Transfer to R&R	-598,992	0	0	0		
<u>Prior Year Surplus</u>	<u>3,150,009</u>	<u>3,150,009</u>	<u>3,983,753</u>	<u>3,262,220</u>		
Accumulated Surplus	3,150,009	3,183,271	3,983,753	3,262,220		

Operation Summary

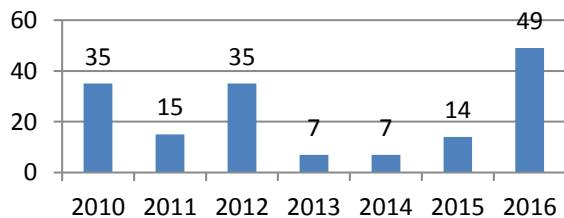
Wastewater Treatment: The Portland Water District owns, operates and maintains the treatment facilities in the City of Portland. The largest facility, the East End WWTF is located off of the Eastern Promenade while the Peaks Island facility is located by the ferry dock on the island. As shown below,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

EEWTF Parameter	Capacity	2016 Facility Avg	2016 - % Capacity Used
Flow (million gallons per day)	19.8 mgd	15.92 mgd	80 %
Biosolids Removed (wet tons/month)	N/A	1,471 wt/month	

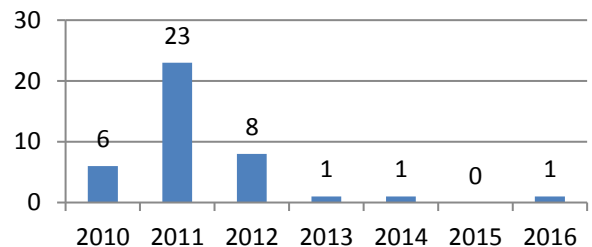
Effluent Permit Requirements:

Parameter	Discussion
Biological Oxygen Demand (BOD)	Measure of organic material and the strength of pollution. The treatment plant removed 93% of the BOD; well above the required 85% removal.
Total Suspended Solids (TSS)	Measure of suspended material in the incoming wastewater. The treatment plant removed 94% of the TSS; well above the required 85% removal.
Total Residual Chlorine	Used for disinfecting the treated effluent, chlorine must be removed before the effluent is discharged. The permit limit was met at all times.
Fecal Coliform Bacteria	Following disinfection with chlorine, the fecal coliform level is monitored to confirm the treatment plant effluent was properly disinfected.
Effluent nitrogen	Nitrogen is considered a possible pollutant that can contribute to water quality issues. The new permit requires monitoring of nitrogen during the warmer months and the development of a “nitrogen optimization” approach where PWD will be asked to operate the plant to reduce the effluent nitrogen loading using existing facilities.

EEWWTF License Exceedences



Peaks Island WWTF License Exceedences



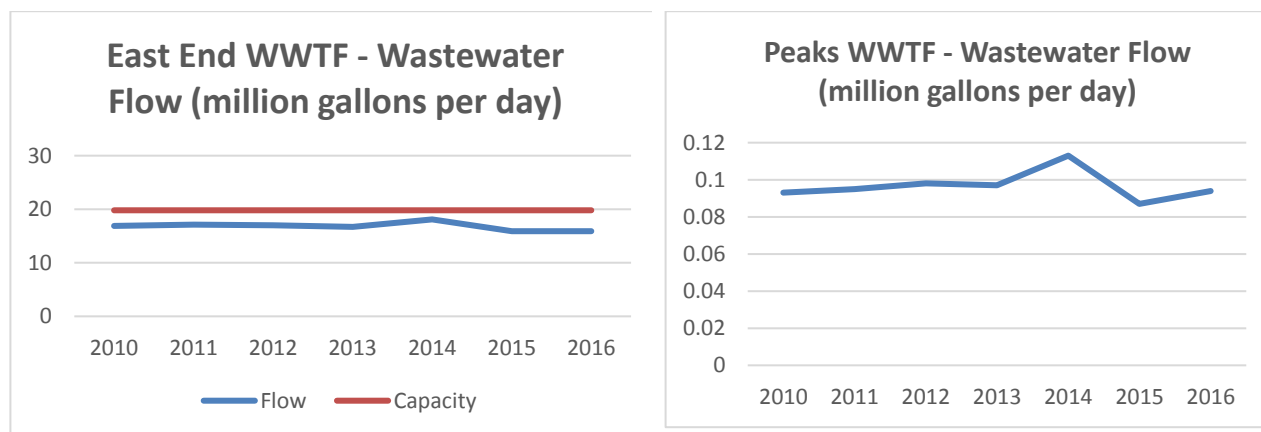
Operation Summary (continued)

In 2016, the East End Wastewater Treatment Facility's new aeration system was under construction. During the upgrade the facility experienced equipment failures in the existing aeration basins. The majority of the permit violations and odors from the system occurred before the first upgraded aeration basin was placed in operation. With the new aeration system now fully operational, a significant reduction in odors and permit violations is expected.

A new 5-year permit was issued in 2017. This permit reduced the frequency of many routine monitoring requirements. The permit does require PWD to submit a "nutrient optimization" report that includes effluent nitrogen results and our efforts to manage nitrogen. The new aeration system is anticipated to be able achieve a 20 – 40% reduction in effluent nitrogen levels. As part of this effort, we have increased the electrical budget by \$17,000 in anticipation of increased aeration costs.

The current Discharge Permit for the Peaks Island facility will expire on June 4, 2017. The renewal process began in the early part of 2017. A final draft is under review and is expected by the end of 2017. The permit will likely include requirements to monitor effluent nitrogen levels.

The treatment facility on Peaks Island provides wastewater treatment to the residents and business on Peaks Island. Waste solids generated on the island are hauled to the mainland and generally processed at the EEWTF. With the completion of the Island Avenue sewer extension project and eventual connect of those customers adjacent to the new sewer, the capacity in the treatment plant has essentially been reached. In 2017, an analysis of the current capacity, along with suggested upgrades or opportunities for capacity improvements will be completed.



Wastewater Conveyance – interceptors and pumping stations

Parameter	2017 Actual to Sept	2018 Projected
Preventive Work Orders	195	200
Corrective Work Orders	39	50
Wet wells cleaned	5	15
Debris removed (tons)	12	15
Dry Weather Overflows	0	0

Operation Summary (continued)

2017 Other Highlights

- Monthly CSO activities continue to be monitored and reported by PWD for regular distribution to stakeholders. Sites are continuously monitored by web based software. In 2016, many of these decade-old units had reached the end of their service life and were replaced with newer models. This should ensure that the monitors continue to provide monitoring and alarming of CSO sites for the next 10 years.
- The final aeration tank from the diffused aeration project was placed on-line in August of 2017. The project addressed odors associated with the aeration system, and odor complaints have been reduced significantly. The performance of the system has dramatically improved, particularly during peak wet weather flows when solids from the system are apt to be flushed out.
- The design and installation of an odor control system for the Northeast Pump Station has started and will be completed in the summer of 2018.
- The dewatering system operation in much of 2017 was difficult due to maintenance and equipment issues with the dewatering units. Replacement components for one unit were purchased and should be installed in the 4th quarter of 2017. This should allow for regular preventive maintenance to occur and for improved operation of the system. We are assessing the possible impact of the new aeration system, particularly an increase in sludge production due to improved treatment efficiencies.
- The Peaks Island Facility continued to operate well through the summer due to operational changes implemented by staff to accommodate the high seasonal loadings. The installation of an ultraviolet disinfection system has improved plant performance and reduced the need for regularly scheduled weekend visits to the facility. Staff did complete additional monitoring of weekend loadings in order to document the effect of increased weekend visitors on the treatment plant. The facility is monitored through the SCADA control system at the East End WWTF.
- Through a cooperative effort with Engineering Services all the equipment at the Peaks Island treatment plant was reviewed and the information in the asset management system was updated. Work will continue at the East End plant in the coming years.
- The Fore River Pump Station Upgrade began in 2015 and the second phase will continue in 2018.

2018 Work Plan

- The Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations in Portland.
- Plant operations will continue to focus on improving plant performance through process control efforts. These efforts will be supported by the ongoing aeration upgrade project.
- The electrical master plan and HVAC evaluations will both be completed in 2017. These assessments will result in a long-range plan for the replacement and refurbishment of these critical support systems.
- A “nutrient optimization” report that describes the efforts and challenges of the plant’s efforts to attempt to manage the effluent nitrogen loading will be completed in 2018. This is a requirement of the 2017 permit.

- A number of manholes along Baxter Blvd. will be refurbished or replaced in 2017. This will help eliminate some of the inflow and infiltration of seawater experienced during high tides.
- An odor control system at the North East Pump Station will be designed and construction will begin in 2017. This should help alleviate odors from the entrance to the East End WWTF.
- The final phase of the Fore River Pump Station upgrade will be completed. This phase will install screenings and replace internal piping.

Fore River PS Upgrades - \$2,500,000



Fore River PS:
Piping, Screening,
Bypass, Electrical,
HVAC

Capital Summary

A five-year capital plan is updated each year (see Capital Expenditures section). Projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects.

Expenditures by CIP Year:

Projects:	<u>2017</u>	<u>2018</u>	<u>Total</u>
Pump Station R&R – 70		335,000	\$ 335,000
CSO Program – 131 (India St Tide Gate)	20,000	400,000	\$ 420,000
East End Treatment Facility R&R – 409		725,000	\$ 725,000
East End Treatment Facility Capital – 21	60,000	1,575,000	\$ 1,635,000
Peaks Island R&R – 423		55,000	\$ 55,000
SCADA / Process Control Program – 177		50,000	\$ 50,000
Total by CIP Year	\$ 80,000	\$ 3,140,000	\$3,220,000

Source of Funds:

	<u>R&R Fund</u>	<u>Bond Issue Year:</u>	<u>Total Funding</u>
		<u>2018</u>	<u>2019</u>
Beginning Balance	\$ 3,050,944		
2018 Contribution	\$ 720,000		
Total R&R Balance Available	\$ 3,770,944		
Projects:			
Pump Station R&R – 70			
Stroudwater Pump station	\$ 110,000		\$ 110,000
Northeast Pump station	\$ 125,000		\$ 125,000
Other	\$ 100,000		\$ 100,000
CSO Program – 131 (India St Tide Gate)		\$ 420,000	\$ 420,000
East End Treatment Facility R&R – 409	\$ 725,000		\$ 725,000
East End Treatment Facility Capital – 21			
Influent Screen		\$ 485,000	\$ 485,000
Effluent Flow Meter		\$ 50,000	\$ 50,000
Chlorine Tank Piping		\$ 425,000	\$ 425,000
HVAC			\$ 425,000
Dewatering Odor			\$ 250,000
Peaks Island–423(Compress Air System)	\$ 55,000		\$ 55,000
SCADA / Process Control Program – 177	\$ 50,000		\$ 50,000
Total	\$ 1,165,000	\$ 1,380,000	\$ 675,000
Ending Balance	\$ 2,605,944		\$3,220,000

Projections for Rate-Making Purposes

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

Major Assumptions:

The assumptions incorporated in the projections are as follows:

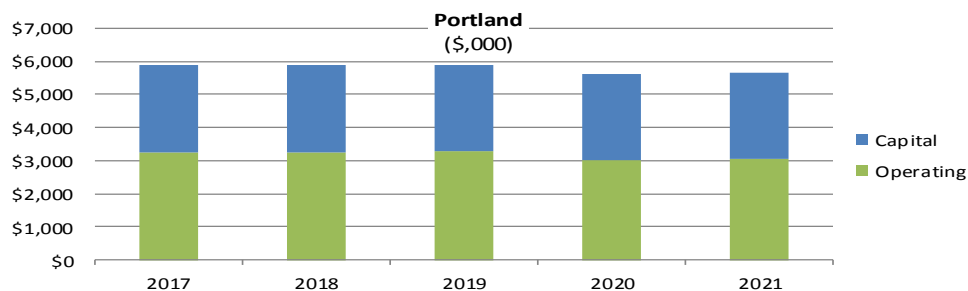
- Salary increases of 2.5% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2018 5-year capital plan. New debt assumed a 20-year life at 3% (State Revolving Loan Fund bond) or 5%.

Assessment is projected to increase to \$13,870,238 in 2021, a 13% increase over 2018 Budget, with the most significant cost change related to debt service issued to finance capital projects.

The operating and capital reserve balances do not meet the target balance, but have a balance of almost \$6M.

Both the percent of budget dedicated to debt service and debt service ratio are better than target amounts.

Reserve Fund Balances



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

Funds	2016	2017	2018	2019	2020	2021
Portland	19%	21%	21%	21%	23%	23%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2016	2017	2018	2019	2020	2021
Portland	1.70	1.33	1.35	1.34	1.21	1.28

Projections for Rate-Making Purposes (continued)

Operating Fund:

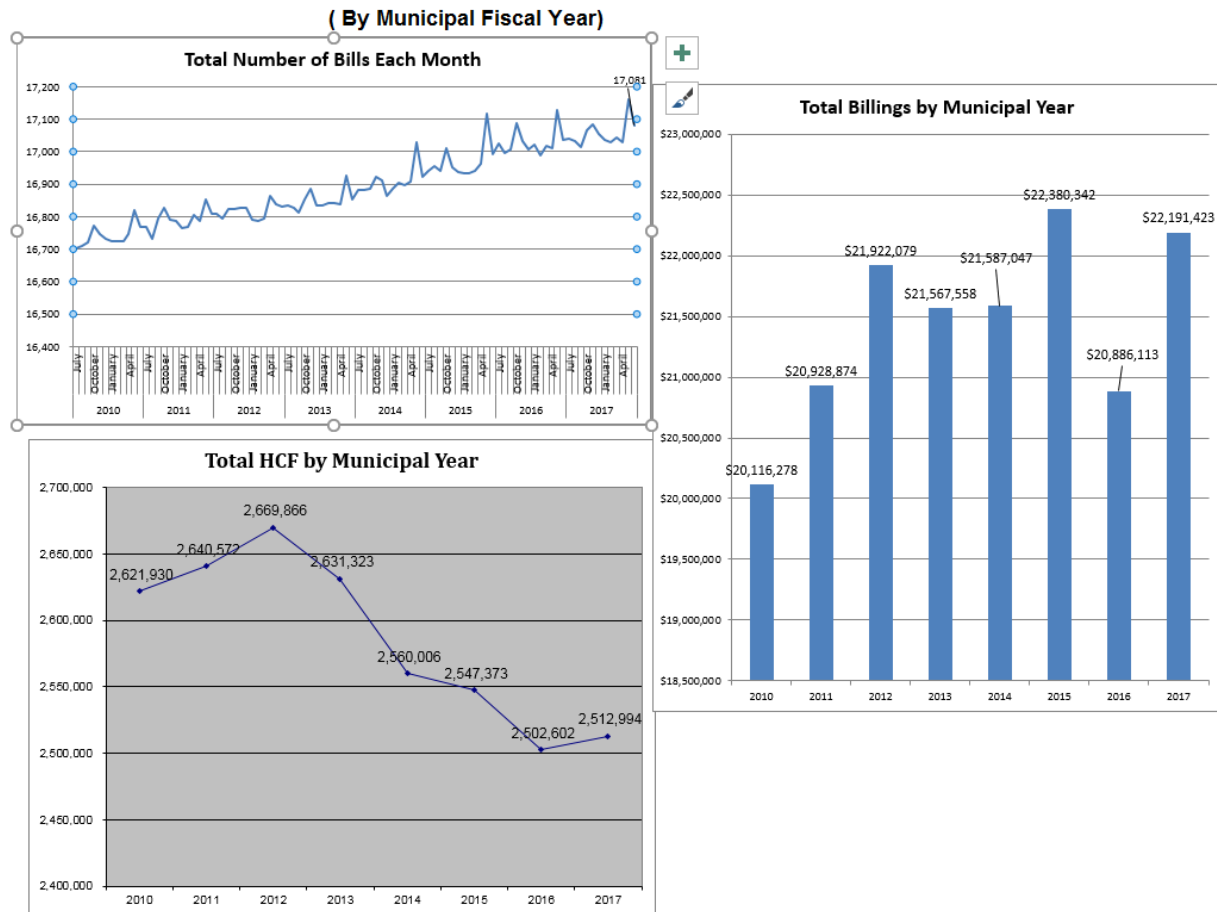
Wastewater Portland	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected
Assessment Income	\$12,248,424	\$12,677,119	\$13,260,266	\$13,870,238
Other Income	101,800	101,800	101,800	101,800
Interest Income	67,800	67,800	67,800	67,800
Total Revenue	12,418,024	12,846,719	13,429,866	14,039,838
Expense:				
Biosolids Disposal	1,222,811	1,259,495	1,297,280	1,336,198
Salaries/Wages	1,192,235	1,222,041	1,252,592	1,283,907
Employee Benefits	584,299	613,514	644,190	676,400
Purchased Power	1,107,118	1,140,332	1,174,542	1,209,778
Chemicals	484,429	498,962	513,931	529,349
Contracted Svcs	648,033	667,474	687,498	708,123
Heat/Fuel Oil	117,475	120,999	124,629	128,368
Materials/Supplies	284,168	292,693	301,474	310,518
Transportation	74,562	76,799	79,103	81,476
Tele/Oth Utilities	111,777	115,130	118,584	122,142
Insurance	32,726	33,708	34,719	35,761
Other Expense	16,825	17,330	17,850	18,386
Support Services:				
Administration	1,408,409	1,484,473	1,562,819	1,643,516
Wastewater Services	852,585	878,163	904,508	931,643
Engineering Services	494,545	509,381	524,662	540,402
Environmental Services	276,163	284,448	292,981	301,770
Water Services	28,744	29,606	30,494	31,409
Capital:				
Debt Service	2,574,170	2,693,041	3,200,940	3,231,191
Renewal & Replacement	906,950	906,950	906,950	906,950
Total Expense	12,418,024	12,844,539	13,669,746	14,027,287
Annual Surplus (Deficit)	0	2,180	-239,880	12,552
Carryforward Surplus	3,262,220	3,262,220	3,264,400	3,024,520
Period Ending Surplus	3,262,220	3,264,400	3,024,520	3,037,072
Target	3,104,506	3,211,135	3,417,437	3,506,822
Above/(Below) Target	\$157,714	\$53,265	(\$392,917)	(\$469,750)

Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$5,218,000

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2018	3,050,944	720,000	2,055,000	3,220,000	2,605,944
2019	2,605,944	720,000	4,739,000	5,459,000	2,605,944
2020	2,605,944	720,000	225,000	945,000	2,605,944
2021	2,605,944	720,000	1,530,000	2,250,000	2,605,944

Sewer Billing Statistics

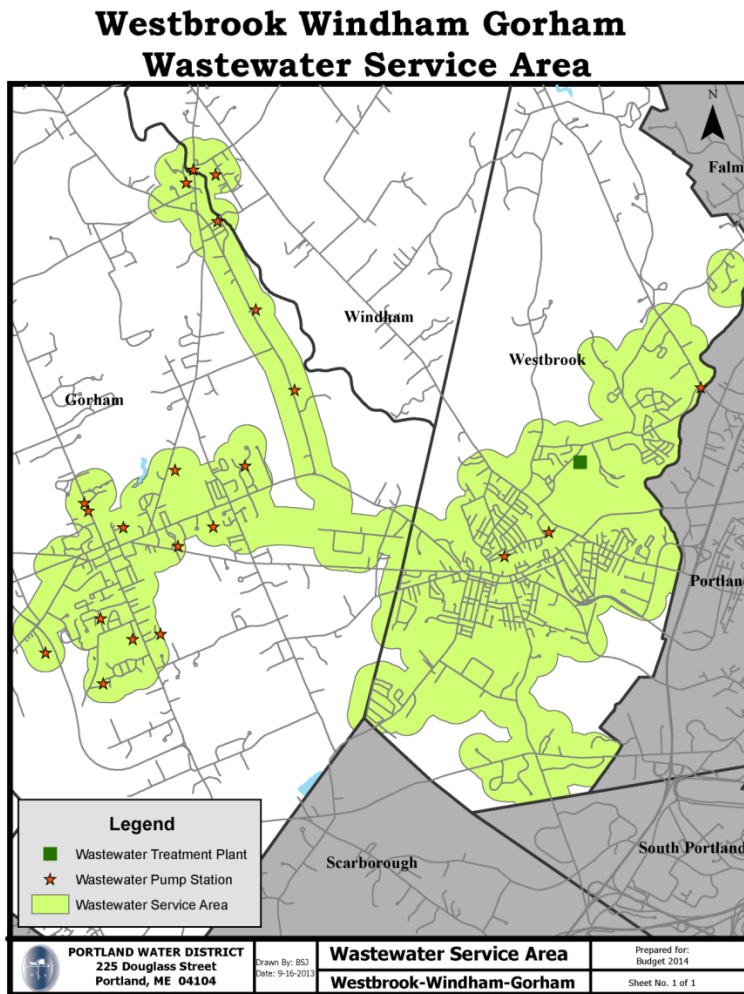
The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District's water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly. The total billing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



Fund: Wastewater - Westbrook

Background

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



Summary of Services Provided:

Treatment

*2.397 million
gallons/day*

Collection System

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

Utility Billing

*Annual Billings of
\$4,524,117 on 4,556
Customers (avg.
\$82.75/month)*

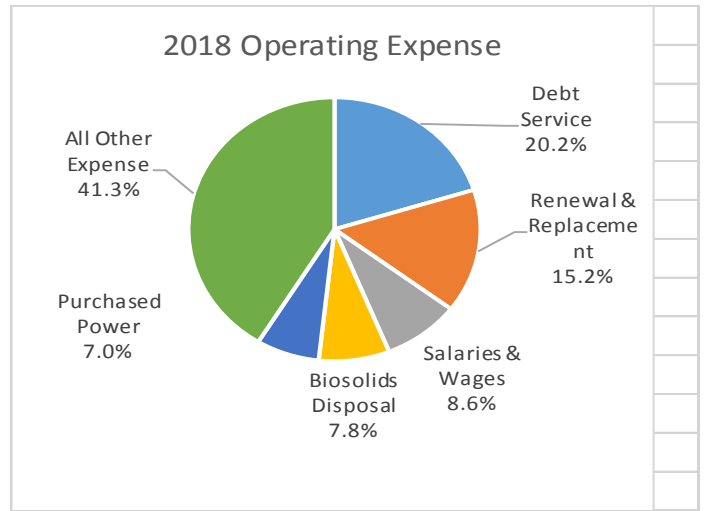
Fund: Wastewater - Westbrook

2018 Financial Summary

The proposed assessment of \$2,533,176 is unchanged since 2013.

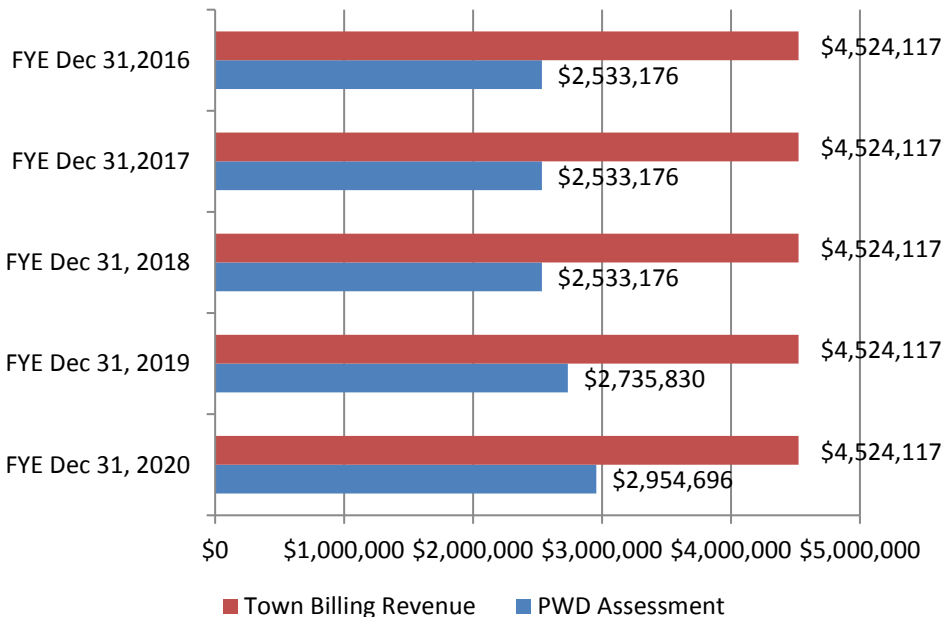
The proposed 2018 Operating Expense and Capital budgets are \$2,720,643 and \$243,300 respectively.

The Operating Expense budget is \$13,979 higher (0.5%) than the previous year. Departmental Expense decreased by \$62,960 or 3.5%, Debt Service increased 15.2% to \$72,293 while Renewal & Replacement (direct and indirect) funding increased \$4,546 to \$412,528. The major Capital project is the installation of screens (\$200,000) at several CSO outfall locations.



Assessment Compared to Ratepayers' Billing

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



Revenue Assumptions:

- Consumption assumed for 2018 and 2019 is based on consumption through June 30, 2017

- Rates Assumed:
Effective Base/Per HCF
Date:

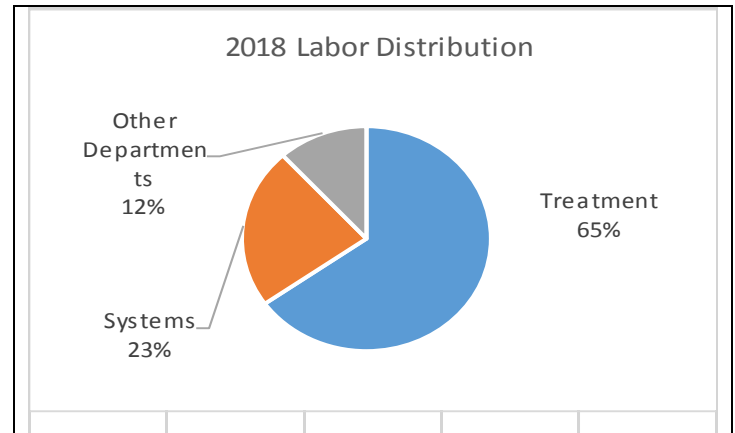
Jan 2013 \$11.13/\$6.13

2018 Operating Expense Highlights

Salaries/Wages – The expense decrease of 2.2% (\$5,337) has resulted in a budget amount of \$233,367. District labor rates increased an average of 3.0% while hours for this fund declined 5.2%.

Employee Benefits – The benefit rate (including FICA) decreased slightly from 54.8% in 2017 to 53.4% in 2018. Overall, employee benefits expense decreased 5.6% (\$7,077).

Biosolids Disposal – A major upgrade to the dewatering system at the Westbrook Regional WWTF is expected to lower disposal expense by 23.8%. In addition, Westbrook's share of allocated treatment costs increased from 80.25% in 2017 to 81.00% in 2018. The result was a 21.7% (\$58,988) decrease in expense in Westbrook.



Contracted Services – This expense is up \$8,732 (6.9%). The majority of the increase is due to an increase of three additional days of CCTV at \$2,250/day (\$6,750).

Heat/Fuel Oil – The decrease, of \$1,835 or 10.8%, was due to a drop in the contracted cost per gallon of heating oil.

Purchased Power – The budget for power is expected to decrease by 8.5% or \$17,595. This decrease was due to lower budgeted energy and delivery rates at the treatment plant.

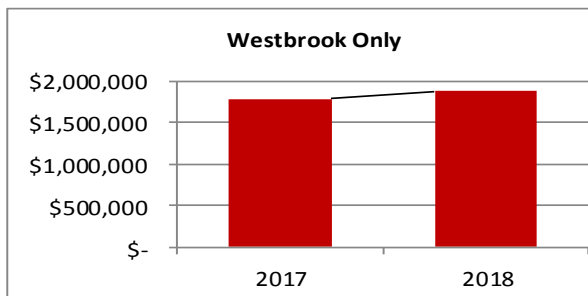
Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer service or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services decreased \$4,982 or 0.7%.

The Administrative allocation increased 0.6%, as the addition of a new customer service coordinator was mostly offset by a lower allocation percentage to this fund due to its lower overall cost increase in relation to other funds. In Wastewater, to increase the focus on asset management, the chief operator position in treatment was replaced with a wastewater maintenance manager. This change shifted costs to this line (up \$8,396 or 5.4%) away from the salaries/wages and employee benefits lines above.

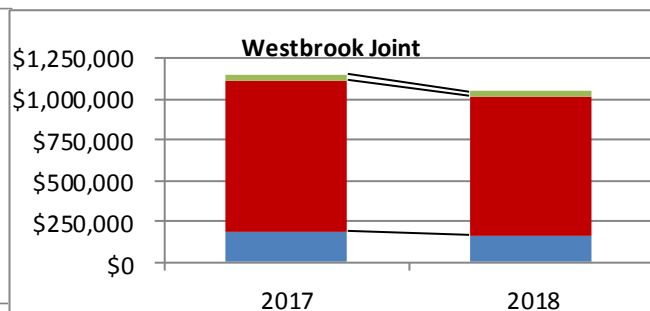
Debt Service – The annual principal and interest payments on bonds issued to finance capital projects, this item increased 15.2% (\$72,393) due to new debt related to sludge dewatering and the Dana Court Pump Station upgrade.

Renewal & Replacement – Dollars put aside to fund capital projects; the 2018 contribution is \$412,528.

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$2,533,176	\$1,266,588	\$2,533,176	\$2,533,176	\$0	0.0%
Interest Income	27,148	23,321	32,488	42,867	10,379	31.9%
<u>Other Income</u>	<u>144,603</u>	<u>23,080</u>	<u>141,000</u>	<u>144,600</u>	<u>3,600</u>	<u>2.6%</u>
Total Revenue	2,704,927	1,312,989	2,706,664	2,720,643	13,979	0.5%
Salaries & Wages	225,568	94,149	238,704	233,367	-5,337	-2.2%
Employee Benefits	110,357	47,678	125,392	118,315	-7,077	-5.6%
Biosolids Disposal	309,612	147,018	272,080	213,092	-58,988	-21.7%
Chemicals	63,747	43,862	57,576	62,537	4,961	8.6%
Contracted Services	110,234	41,492	127,468	136,200	8,732	6.9%
Deferred Cost W/O	14,400	7,200	14,400	14,400	0	0.0%
Heat/Fuel Oil	18,725	11,894	16,944	15,109	-1,835	-10.8%
Insurance	5,957	2,966	5,864	5,964	100	1.7%
Materials & Supplies	66,267	21,541	40,652	41,575	923	2.3%
Other Expense	4,742	3,630	4,383	4,428	45	1.0%
Purchased Power	191,158	134,618	208,084	190,489	-17,595	-8.5%
Tele/Other Utilities	13,079	5,765	13,817	22,227	8,410	60.9%
Transportation	12,896	3,904	13,264	12,983	-281	-2.1%
SS - Administration	297,923	152,437	319,281	321,191	1,910	0.6%
SS - Engineering Services	51,352	27,685	99,970	95,952	-4,018	-4.0%
SS - Environmental Services	91,911	49,523	101,242	100,996	-246	-0.2%
SS - Wastewater Services	165,550	87,875	155,371	163,767	8,396	5.4%
<u>SS - Water Services</u>	<u>6,345</u>	<u>2,329</u>	<u>8,024</u>	<u>6,964</u>	<u>-1,060</u>	<u>-13.2%</u>
Operating Expense	1,759,823	885,566	1,822,516	1,759,556	-62,960	-3.5%
Debt Service	468,111	232,239	476,166	548,559	72,393	15.2%
Renewal & Replacement - Direct	407,904	188,826	377,652	370,574	-7,078	-1.9%
<u>Renewal & Replace - Indirect</u>	<u>30,680</u>	<u>15,165</u>	<u>30,330</u>	<u>41,954</u>	<u>11,624</u>	<u>38.3%</u>
Total Expense	2,666,518	1,321,796	2,706,664	2,720,643	13,979	0.5%
Current Year Surplus (Deficit)	38,409	-8,807	0	0		
Transfer to R&R	-38,409	0	0	0		
Prior Year Surplus	844,744	844,744	983,919	898,340		
Accumulated Surplus	844,744	835,937	983,919	898,340		



Westbrook Only – Westbrook Only expenses were up \$85.4k (4.8%).

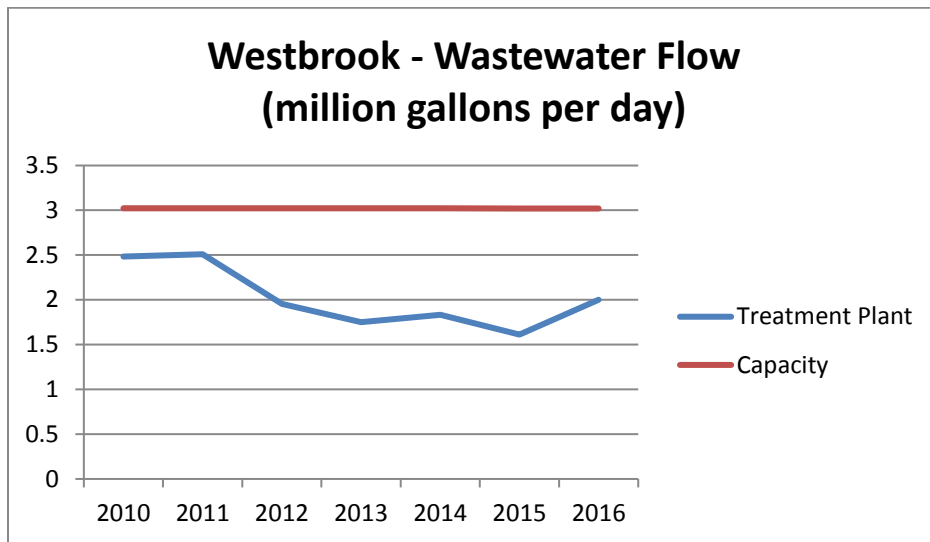


Westbrook JT – Expense down 8.6%, Westbrook's share of expense up (80.25% to 81.00%); overall Westbrook's share of expense down \$71.4k.

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)	2016 Flow (mgd)	% of 2016 WWTF Flow	Reserved Capacity (mgd)	% of Capacity Used
Westbrook (66.6%)	2.00	81 %	3.023	66.1%
Gorham (30.8%)	0.390	15.8 %	1.398	27.9%
Windham (2.6%)	0.079	3.2 %	0.118	67 %
Total Plant Flow	2.47		4.54	54.4 %



The following tables depict some of the key parameters that are monitored at the facility.

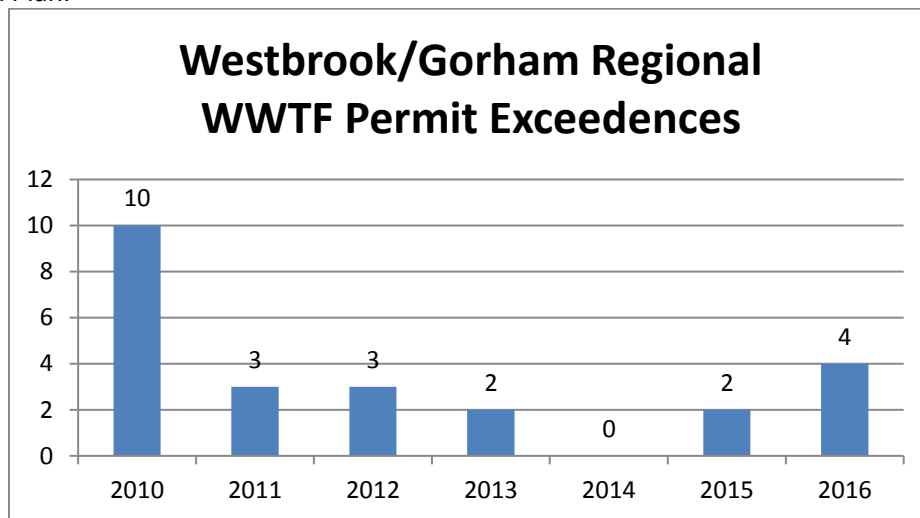
WGWWTF Parameter	DEP Limit	2016 Facility Average
Biosolids Removed (wet tons/month)	N/A	488 wet ton/month

Operation Summary (continued)

Effluent Permit Requirements:

Parameter	Discussion
Biological Oxygen Demand (BOD)	Measure of organic material and the strength of pollution. The treatment plant removed 96% of the BOD; well above the required 85% removal.
Total Suspended Solids (TSS)	Measure of suspended material in the incoming wastewater. The treatment plant removed 96% of the TSS; well above the required 85% removal.
Total Residual Chlorine	Used for disinfecting the treated effluent, chlorine must be removed before the effluent is discharged. The permit limit was met at all times.
Fecal Coliform Bacteria	Following disinfection with chlorine, the fecal coliform level is monitored to confirm the treatment plant effluent was properly disinfected.
Phosphorus	The renewed 5-year permit includes a requirement to monitor phosphorus in the plant's effluent discharge. Phosphorus can contribute to water quality concerns that might include algae and low dissolved oxygen. The monitoring will likely create a baseline for consideration when effluent permit limitations are established in the future.

The effluent permit was renewed in 2017. The permit included reductions in effluent monitoring requirements due to the plant's past performance and the inclusion of a requirement to monitor effluent phosphorus. The City of Westbrook is a joint permittee for their obligations under the CSO Long Term Control Plan.



Wastewater Conveyance – interceptors and pumping stations

Parameter	2017 Actual to Sept	2018 Projected
Preventive Work Orders	113	100
Corrective Work Orders	14	20
Wet wells cleaned	1	3
Debris removed (tons)	2.2	6
Dry Weather Overflows	0	0

Operation Summary (continued)

2017 Other Highlights

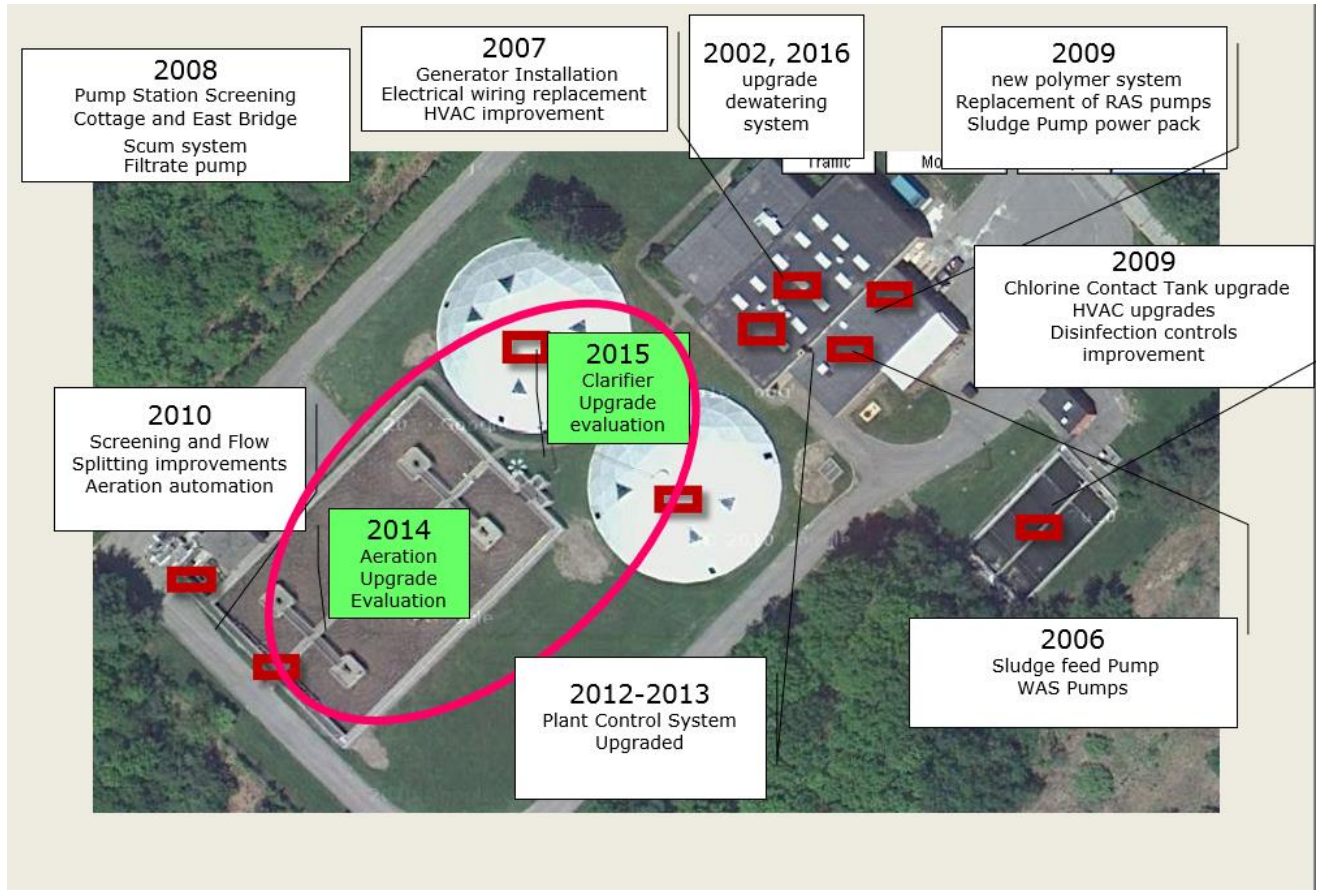
- The new 5-year discharge permit was issued for the Westbrook/Gorham Regional Treatment Facility. The permit includes monitoring for effluent phosphorus during the summer months. The permit also includes the City of Westbrook as a joint permittee for their projects related to the Long Term CSO control plan.
- CSO monitoring continues at the Westbrook CSO outfalls.
- The Dana Court Pump Station upgrade is under design. The upgrade will replace the original pumping and control systems and will increase the peak flow capacity to help manage wet weather flows.
- The aeration system at the Westbrook/Gorham Regional WWTF was evaluated in 2015. Several possible approaches to design of the new system were identified and are dependent on future phosphorus permit limits. The loading to the treatment facility have increased and are creating some operational challenges. Design of the new system is anticipated in 2019 with construction of the upgraded system is currently contemplated for 2020.
- Through a cooperative effort with the Engineering Services, all the equipment at the treatment plant was reviewed and the information in the asset management system was updated. Staff is working to create a preventive maintenance program for each of the assets identified.
- The existing dewatering equipment will be replaced by a new screw press. The project is expected to be completed in the first quarter of 2018. The new equipment is expected to be less operator and maintenance intensive and will increase the throughput and dewatered sludge cake %TS reducing sludge hauling costs.

2018 Work Plan

- Support of the City of Westbrook's ongoing CSO Long-Term Control Plan (LTCP) will continue based on the draft LTCP plan submitted to Maine Department of Environmental Protection. The 5-year update to the plan was submitted to MEDEP in December 2014 and approved in August 2016. Construction of the Dana Court pump station will help meet PWD's obligations under the plan.
- Preventive maintenance will continue to be the focus for operations personal during 2017.
- Screens for floatable controls in some CSO outfall locations will be installed in 2018.

Westbrook Treatment Plant Projects

The almost 40 years old treatment plant has undergone significant upgrades in the past 10 years. A summary of the projects are listed below. The dewatering system upgrade will be completed early 2017. A significant aeration system upgrade is now planned for 2020.



Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The planned projects are listed below with a more detailed description in the CIP section.

Expenditures by CIP Year:

	<u>2018</u>	<u>Total</u>
Projects:		
Westbrook Only CSO - 29	\$ 200,000	\$ 200,000
Westbrook Only Pump Station - 411	\$ 10,000	\$ 10,000
Treatment Plant (prorated - 416)	\$ 33,300	\$ 33,300
Total by CIP Year	\$ 243,300	\$ 243,300

Source of Funds:

	<u>R&R Fund</u>	<u>Bond Issue Year:</u>	<u>Total Funding</u>
		<u>2018</u>	<u>Total</u>
Beginning Balance	\$ 3,159,580		
2018 Contribution	\$ 370,574		
Total R&R Balance Available	\$ 3,530,154		
Projects:			
Westbrook Only CSO - 29	\$ 200,000		\$ 200,000
Westbrook Only Pump Station - 411	\$ 10,000		\$ 10,000
Treatment Plant (prorated - 416)	\$ 33,300		\$ 33,300
Total	\$ 243,300	\$ -	\$ 243,300
Ending Balance	\$ 3,286,854		

Projections for Rate-Making Purposes

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

Major Assumptions:

The assumptions incorporated in the projections are as follows:

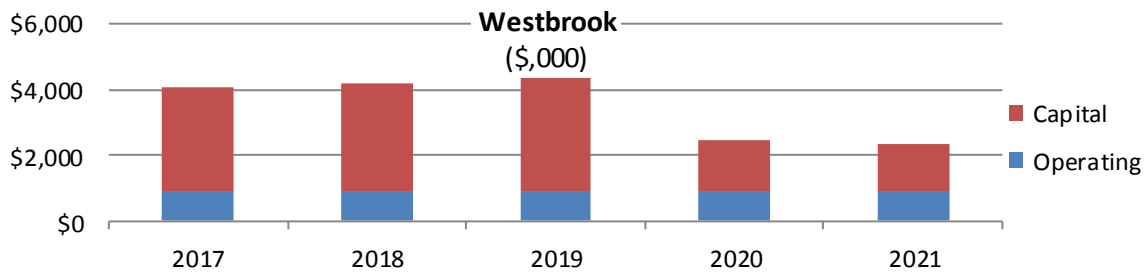
- Salary increases of 2.5% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2018 5-year capital plan. New debt assumed a 20-year life at 3% (State Revolving Loan Fund bond) or 5%.

Assessment is projected to increase to \$3,542,681 in 2021, a 40% increase over 2018 Budget, with the most significant cost change related to debt service issued to finance capital projects.

The operating and capital reserve balances meet or exceed the target balance, even after the planned drawdown of the capital reserve in 2020.

Both the percent of budget dedicated to debt service and debt service ratio are better than target amounts.

Reserve Fund Balances



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

Funds	2016	2017	2018	2019	2020	2021
Westbrook	18%	18%	20%	24%	27%	31%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2016	2017	2018	2019	2020	2021
Westbrook	2.02	1.86	1.75	1.58	1.48	1.40

Projections for Rate-Making Purposes (continued)

Operating Fund:

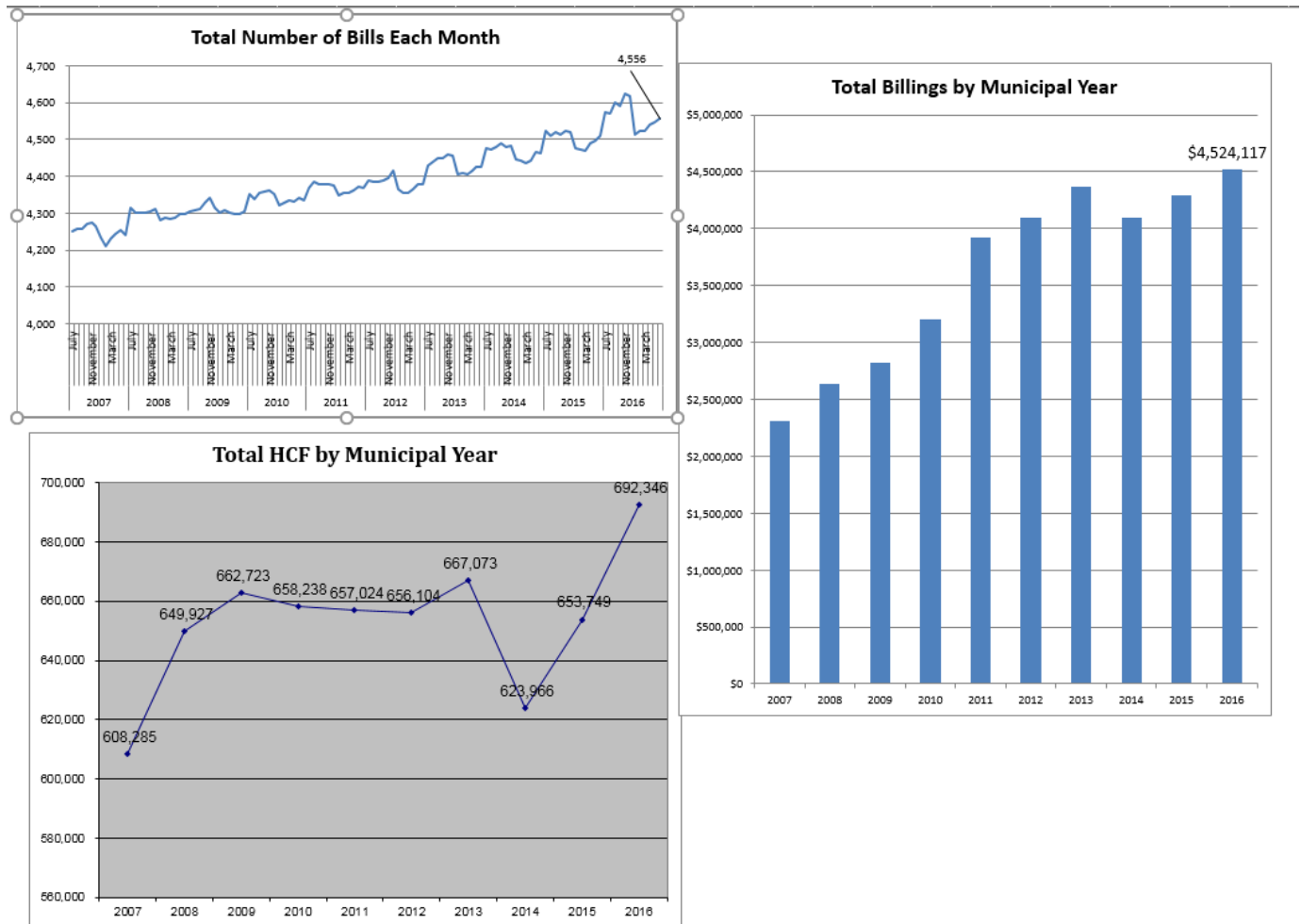
Wastewater Westbrook	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected
Assessment Income	\$2,533,176	\$2,735,830	\$2,954,696	\$3,220,619
Other Income	144,600	144,600	144,600	144,600
Interest Income	42,867	42,867	42,867	42,867
Total Revenue	2,720,643	2,923,297	3,142,163	3,408,086
Expense:				
Contracted Svcs	136,200	140,286	144,495	148,830
Salaries/Wages	233,367	239,201	245,181	251,311
Employee Benefits	118,315	124,231	130,443	136,965
Purchased Power	190,489	190,489	196,204	202,090
Biosolids Disposal	213,092	219,485	226,070	232,852
Transportation	12,983	13,372	13,773	14,186
Chemicals	62,537	64,413	66,345	68,335
Materials/Supplies	41,575	42,822	44,107	45,430
Heat/Fuel Oil	15,109	15,562	16,029	16,510
Tele/Oth Utilities	22,227	22,894	23,581	24,288
Insurance	5,964	6,143	6,327	6,517
Other Expense	18,828	18,961	19,098	19,239
Administration	321,191	338,878	357,095	375,859
Engineering Services	95,952	94,431	97,264	100,182
Environmental Services	100,996	104,026	107,147	110,361
Wastewater Services	163,767	168,680	173,740	178,952
Water Services	6,964	7,173	7,388	7,610
Capital:				
Debt Service	548,559	703,653	857,821	1,045,928
Renewal & Replacement	412,528	412,528	412,528	412,528
Total Expense	2,720,643	2,927,228	3,144,636	3,397,973
Annual Surplus (Deficit)	0	-3,931	-2,473	10,113
Transfer to R&R				
Carryforward Surplus	898,340	898,340	894,409	891,936
Period Ending Surplus	898,340	894,409	891,936	902,049
Target	680,161	731,807	786,159	849,493
Above Target	\$218,179	\$162,602	\$105,777	\$52,556

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

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2018	3,159,580	\$370,574	0	243,300	3,286,854
2019	3,286,854	\$243,300	670,000	709,300	3,490,854
2020	3,490,854	\$243,300	4,200,000	6,360,310	1,573,844
2021	1,573,844	\$243,300	0	403,300	1,413,844

Sewer Billing Statistics

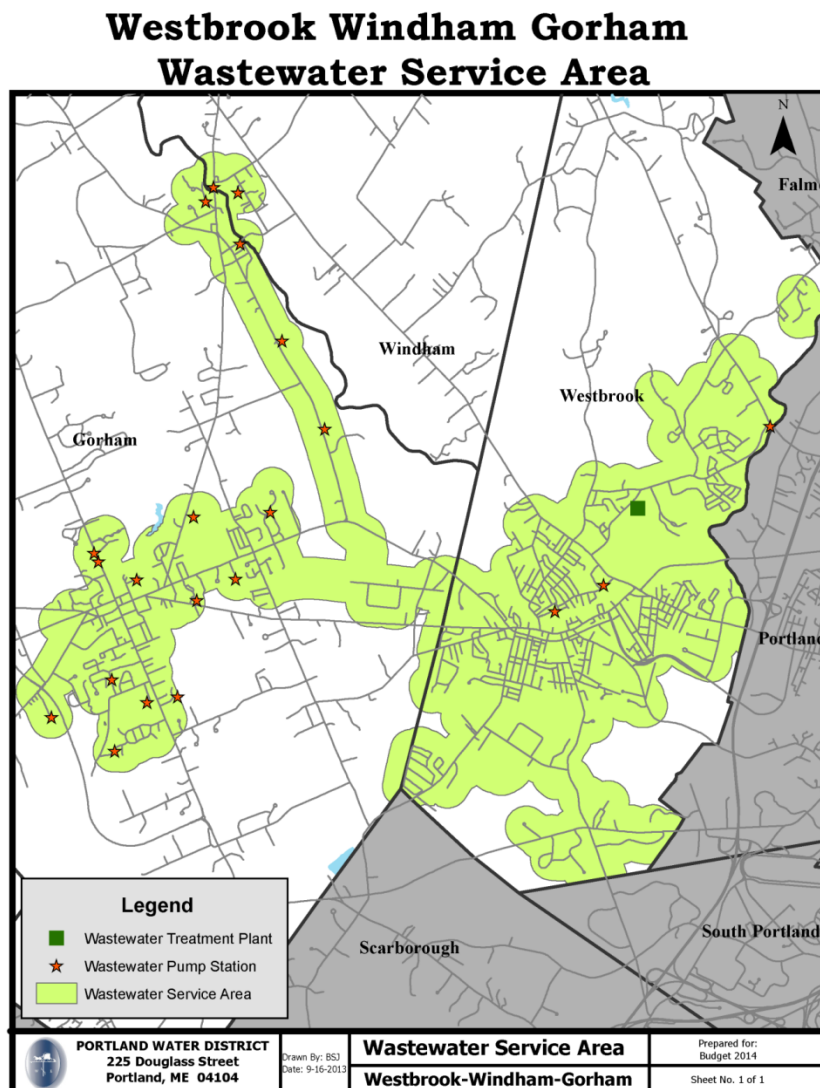
The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District's water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.



Fund: Wastewater – Windham

Background

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



Summary of Services Provided:

Treatment

*0.086 Million
gallons/day*

Collection System

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

Utility Billing

*Annual Billings of
\$334,265 with 56
Customers*

Fund: Wastewater - Windham

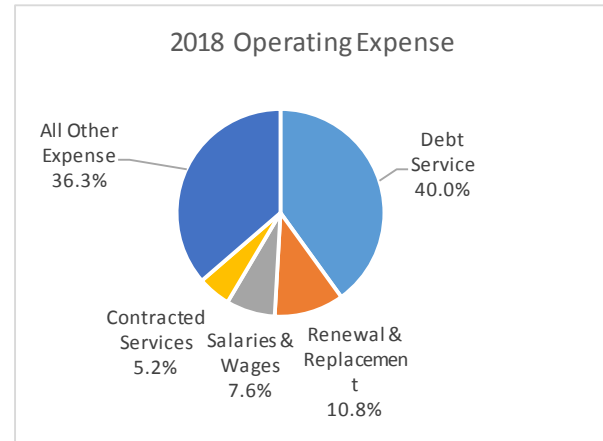
2018 Financial Summary

The town's proposed assessment of \$360,528 is the same as the prior year.

The proposed 2018 Operating Expense and Capital budgets are \$368,158 and \$18,300, respectively.

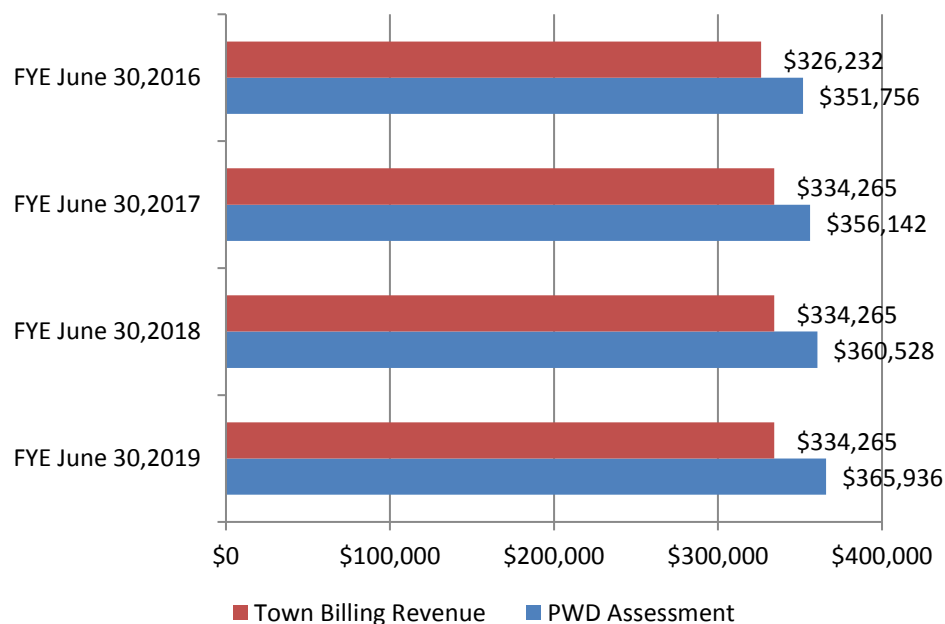
Operating Expense was up 0.5%. Windham flows were unchanged at the Westbrook Region WWTF (3.25%) and dropped in Little Falls (78.5% to 72.5%).

The Capital projects include routine and equipment renewal and replacements at wastewater pump stations and the treatment plant.



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. Any shortfall of billing revenue is made up from the Town's general funds.



Revenue Assumptions:

- Consumption is the 12 months ending June 30, 2017

- Rates Assumed:

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

No change since 4/1/2009

2018 Operating Expense Highlights

Salaries/Wages – Wages were budgeted to decrease 9.8% (\$3,057). District labor rates increased an average of 3.0% but this was more than offset by reductions in labor hours.

Employee Benefits – The benefit rate (including FICA) decreased slightly from 54.8% in 2017 to 53.4% in 2018. Overall, employee benefits expense decreased 13.1% (\$2,147).

Biosolids Disposal – A major upgrade to the dewatering system at the Westbrook Regional WWTF is expected to lower disposal expense by 23.8%. In addition, Windham's share of allocated treatment costs was unchanged at 3.25%. The result was a 22.4% (\$2,469) decrease in expense.

Contracted Services – The budget for this item decreased \$2,306 (10.8%) primarily due a reduction of CCTV by one day (at \$2,250/day).

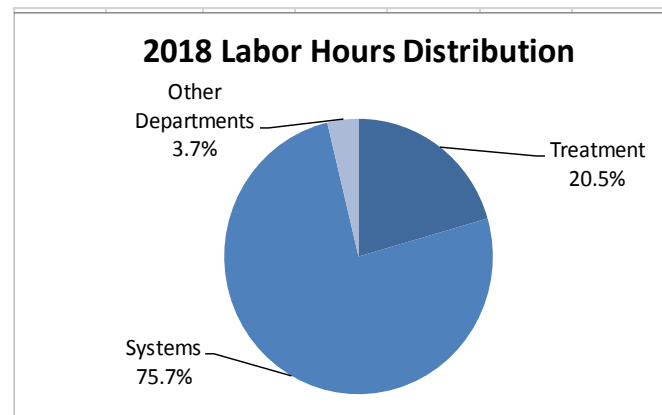
Purchased Power – The budget for power is expected to decrease by 11.3% or \$1,938 to \$15,179. Costs are lower both at the treatment plant and the pump stations due to lower budgeted energy and delivery rates.

Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services decreased \$1,140 or 1.6%.

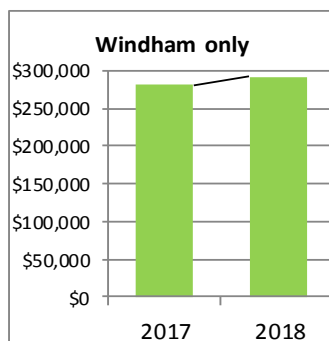
The Administrative allocation decreased 3.7%, as the addition of a new customer service coordinator was more than offset by a lower allocation percentage to this fund due to its lower overall cost increase in relation to other funds. In Wastewater, to increase the focus on asset management, the chief operator position in treatment was replaced with a wastewater maintenance manager. This change shifted costs to this line (up \$505 or 3.3%) away from the salaries/wages and employee benefits lines above.

Debt Service - The annual principal and interest payments on bonds issued to finance capital projects. This item decreased 0.8% (\$1,137) as older bond issues were retired.

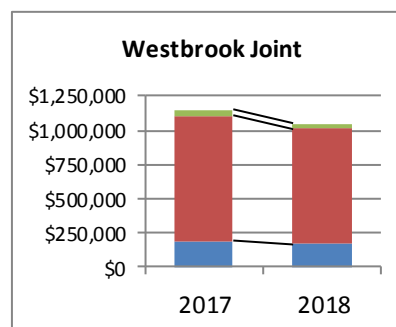
Renewal & Replacement - Dollars put aside to fund capital projects. A contribution of \$39,945 will be made in 2018.



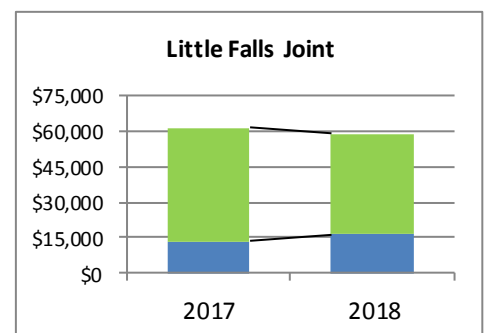
	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$351,756	\$180,264	\$360,528	\$360,528	\$0	0.0%
Interest Income	2,375	1,973	3,240	4,130	890	27.5%
<u>Other Income</u>	<u>3,512</u>	<u>726</u>	<u>2,700</u>	<u>3,500</u>	<u>800</u>	<u>29.6%</u>
Total Revenue	357,643	182,963	366,468	368,158	1,690	0.5%
Salaries & Wages	24,259	12,738	31,129	28,072	-3,057	-9.8%
Employee Benefits	12,149	6,661	16,330	14,183	-2,147	-13.1%
Biosolids Disposal	11,327	5,954	11,019	8,550	-2,469	-22.4%
Chemicals	2,319	1,773	2,317	2,492	175	7.6%
Contracted Services	14,877	6,551	21,286	18,980	-2,306	-10.8%
Heat/Fuel Oil	1,416	1,532	1,848	1,933	85	4.6%
Insurance	802	403	825	763	-62	-7.5%
Materials & Supplies	6,212	1,394	8,845	8,441	-404	-4.6%
Other Expense	231	146	172	172	0	0.0%
Purchased Power	15,610	10,061	17,117	15,179	-1,938	-11.3%
Tele/Other Utilities	400	169	475	582	107	22.5%
Transportation	8,328	3,461	12,599	11,599	-1,000	-7.9%
SS - Administration	33,606	18,076	38,005	36,615	-1,390	-3.7%
SS - Engineering Services	6,928	3,694	13,652	13,541	-111	-0.8%
SS - Environmental Services	3,089	1,720	3,668	3,549	-119	-3.2%
SS - Wastewater Services	13,642	8,731	15,470	15,975	505	3.3%
SS - Water Services	144	45	183	158	-25	-13.7%
Operating Expense	155,339	83,109	194,940	180,784	-14,156	-7.3%
Debt Service	147,395	72,028	148,566	147,429	-1,137	-0.8%
Renewal & Replacement - Direct	32,687	10,000	20,000	35,849	15,849	79.2%
Renewal & Replace - Indirect	<u>2,887</u>	<u>1,481</u>	<u>2,962</u>	<u>4,096</u>	<u>1,134</u>	<u>38.3%</u>
Total Expense	338,308	166,618	366,468	368,158	1,690	0.5%
Current Year Surplus (Deficit)	19,335	16,345	0	0		
Transfer to R&R	-19,335	0	0	0		
<u>Prior Year Surplus</u>	<u>109,099</u>	<u>109,099</u>	<u>134,665</u>	<u>132,331</u>		
Accumulated Surplus	109,099	125,444	134,665	132,331		



Windham Only – Expense up \$10.5k (3.7%).



Westbrook JT – Expense down 8.6%, Windham's share of expense up (3.0% to 3.25%), Windham share of expense down \$3.2k.



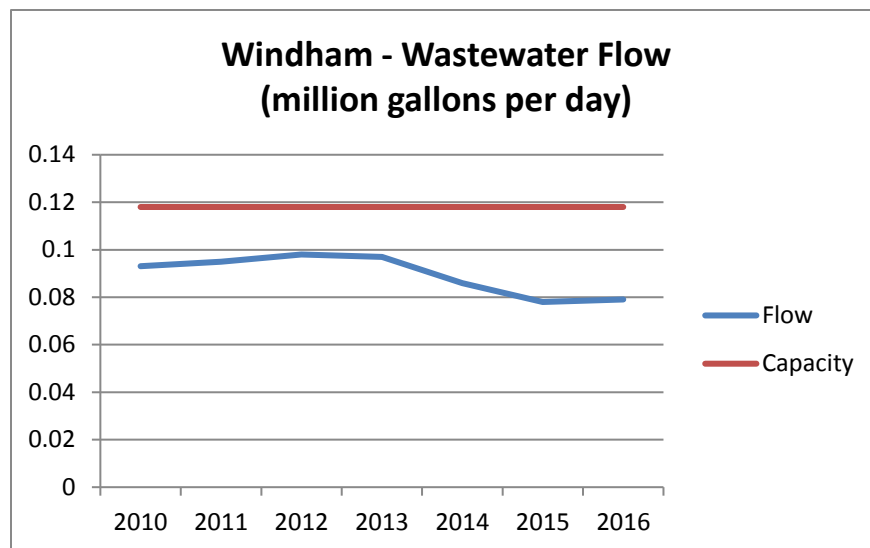
Little Falls JT – Expense down \$2.6k, Windham's share of expense down (77.5% to 72.5%), Windham's share down \$5.6k.

Operation Summary

Wastewater Treatment

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

Area	2016 Windham Flow	Westbrook WWTF Flow	% Windham Flow
Windham	0.079 mgd	2.47 mgd	3.2%
WGWWTF Capacity	Windham Capacity (2.6%)	% Capacity Used	Capacity Remaining
4,540,000 gal/day	0.118 mgd	67 %	0.039 mgd



Wastewater Conveyance – collectors, interceptors and pumping stations

Parameter	2017 Actual to Sept	2018 Projected
Preventive Work Orders	81	75
Corrective Work Orders	4	5
Wet wells cleaned	18	15
Debris removed (tons)	17	10
Dry Weather Overflows	0	0

Operation Summary (continued)

2017 Other Highlights

- Preventive type work continues to be the main focus of system staff.
- Wet well and siphon cleaning were performed on a regular schedule using our Hansen unit scheduled maintenance program. This effort is in response to odor concerns in the area and the need to regularly clean the siphon to ensure the system operates properly. Staff inspects the siphon weekly.
- In response to odor concerns at the Mallison St. Pump Station, an odor control system was installed. There have been no complaints of odor since the system was installed in the summer of 2012.
- The Route 202 Pump Station flow meter was replaced in 2015. This meter records the flow from the Windham area.
- The addition of an odor control unit at the Little River Pump Station (which is jointly used by Windham and Gorham) will be completed in 2017.

2018 Work Plan

- All pump stations will be continuously monitored with our SCADA system and dispatch service. Operations staff will visit each station on a weekly basis.
- Asset Management Software will drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders.
- Wet wells scheduled for cleaning on a quarterly basis unless experience dictates otherwise.
- The siphon will be inspected and cleaned as needed. In 2017, a new monitoring unit will be installed to alarm in advance of overflows at the siphon inlet structure.
- The Routine Renewal and Replacement capital account will be used to address any unanticipated equipment issues.

Capital Summary

A five-year capital plan is updated each year (see Capital Expenditures section). Projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects.

Expenditures by CIP Year:			
		2018	Total
Projects:			
Little Falls (prorated) - 180		\$ 17,000	\$ 17,000
Treatment Plant (prorated - 416)		\$ 1,300	\$ 1,300
Total by CIP Year		\$ 18,300	\$ 18,300
Source of Funds:			
	R&R Fund	Bond Issue Year:	Total Funding
		2018	Total
Beginning Balance	\$ 161,268		
2018 Contribution	\$ 35,849		
Total R&R Balance Available	\$ 197,117		
Projects:			
Little Falls (prorated) - 180	\$ 17,000		\$ 17,000
Treatment Plant (prorated - 416)	\$ 1,300		\$ 1,300
Total	\$ 18,300	\$ -	\$ 18,300
Ending Balance	\$ 178,817		

Prorated Projects: Costs of projects done on infrastructure used by multiple communities are 'prorated' between the municipalities based on relative design capacity.

Projections for Rate-Making Purposes

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

Major Assumptions:

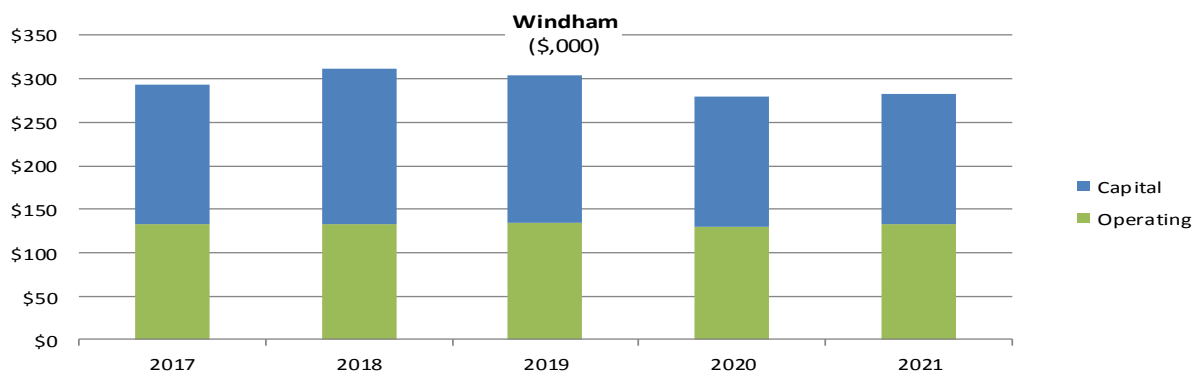
The assumptions incorporated in the projections are as follows:

- Salary increases of 2.5% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2018 5-year capital plan. New debt assumed a 20-year life at 3% (State Revolving Loan Fund bond) or 5%.

Assessment is projected to increase to \$360,528 in 2021, a 30% increase over 2018 Budget, with the most significant cost change related to debt service issued to finance capital projects.

Reserve balances meet or exceed the target balance.

Percent of budget is high and debt service ratio is low due to Windham's request to connect the Little Falls area to the Westbrook Regional Treatment Plant and significant upcoming upgrades at the treatment plant. Also, ratios are impacted by the capital project on Depot Street scheduled for 2019/2020.



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

Funds	2016	2017	2018	2019	2020	2021
Windham	44%	41%	40%	40%	42%	47%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2016	2017	2018	2019	2020	2021
Windham	1.37	1.15	1.27	1.27	1.22	1.20

Projections for Rate-Making Purposes (continued)

Wastewater Windham	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected
Assessment Income	\$360,528	\$371,344	\$389,911	\$448,398
Other Income	3,500	3,500	3,500	3,500
Interest Income	4,130	4,130	4,130	4,130
Total Revenue	368,158	378,974	397,541	456,028
Expense:				
Contracted Svcs	18,980	19,549	20,135	20,739
Salaries/Wages	28,072	28,774	29,493	30,230
Employee Benefits	14,183	14,608	15,046	15,497
Purchased Power	15,179	15,179	15,634	16,103
Biosolids Disposal	8,550	8,807	9,071	9,343
Transportation	11,599	11,947	12,305	12,674
Chemicals	2,492	2,567	2,644	2,723
Materials/Supplies	8,441	8,694	8,955	9,224
Heat/Fuel Oil	1,933	1,991	2,051	2,113
Tele/Oth Utilities	582	599	617	636
Insurance	763	786	810	834
Other Expense	172	177	182	187
Administration	36,615	38,261	39,957	41,704
Engineering Services	13,541	13,947	14,365	14,796
Environmental Services	3,549	3,655	3,765	3,878
Wastewater Services	15,975	16,454	16,948	17,456
Water Services	158	163	168	173
Capital:				
Debt Service	147,429	151,502	168,959	214,568
Renewal & Replacement	39,945	39,945	39,945	39,945
Total Expense	368,158	377,605	401,050	452,823
Annual Surplus (Deficit)	0	1,369	-3,509	3,205
Transfer to R&R				
Carryforward Surplus	132,331	132,331	133,700	130,191
Period Ending Surplus	132,331	133,700	130,191	133,395
Target	92,040	94,401	100,263	113,206
Above Target	\$40,292	\$39,299	\$29,928	\$20,190

Operating Fund:

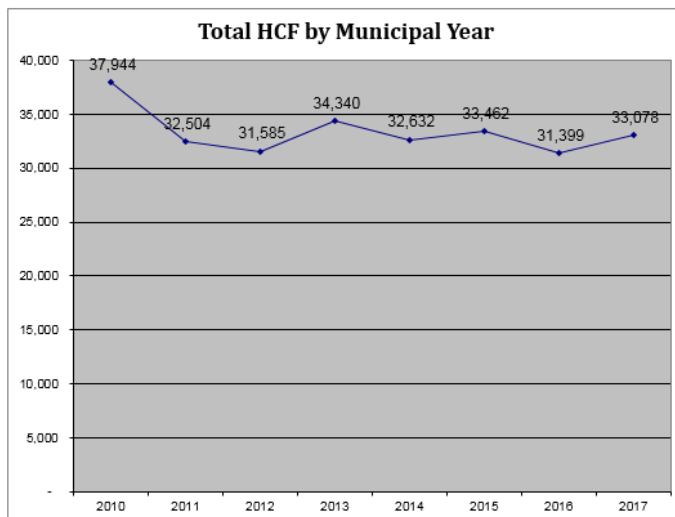
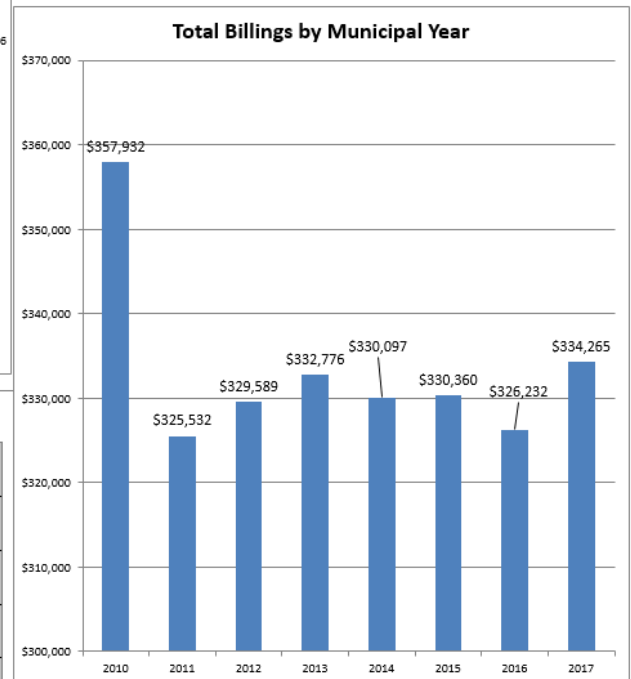
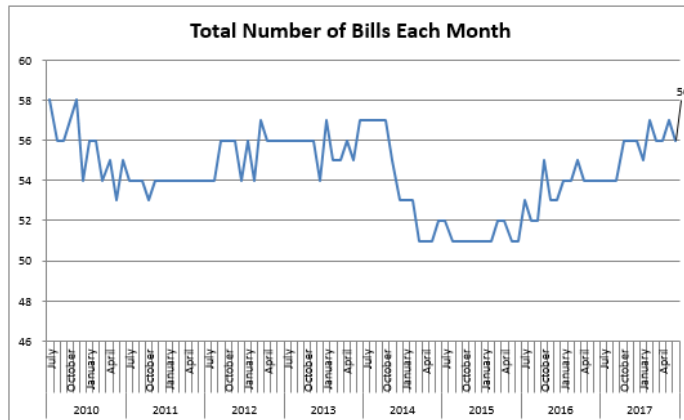
Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$150,000

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2018	161,268	35,849	0	18,300	178,817
2019	178,817	18,300	95,000	122,300	169,817
2020	169,817	18,300	718,910	757,910	149,117
2021	149,117	18,300	390,000	408,800	148,617

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)



Falmouth Assessment and Scarborough and South Portland Contracted Services

Background

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

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

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

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

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

2018 Summary

The assessment in Falmouth will increase from \$263,604 in 2017 to \$310,056 in 2018 to support the new debt service payments referenced above. The District is proposing 2.5% increases in both Scarborough (\$276) and South Portland (\$4,800).

The changes to Operating Expense were: Falmouth increasing \$1,004 (8.5%), Scarborough decreasing \$303 (13.0%) and South Portland increasing \$5,818 (4.8%). Debt Service will increase in groups: Falmouth (\$45,518), Scarborough (\$230) and South Portland (\$698). Renewal & Replacement costs for meters were increased effecting Scarborough (\$648) and South Portland (\$5,601).

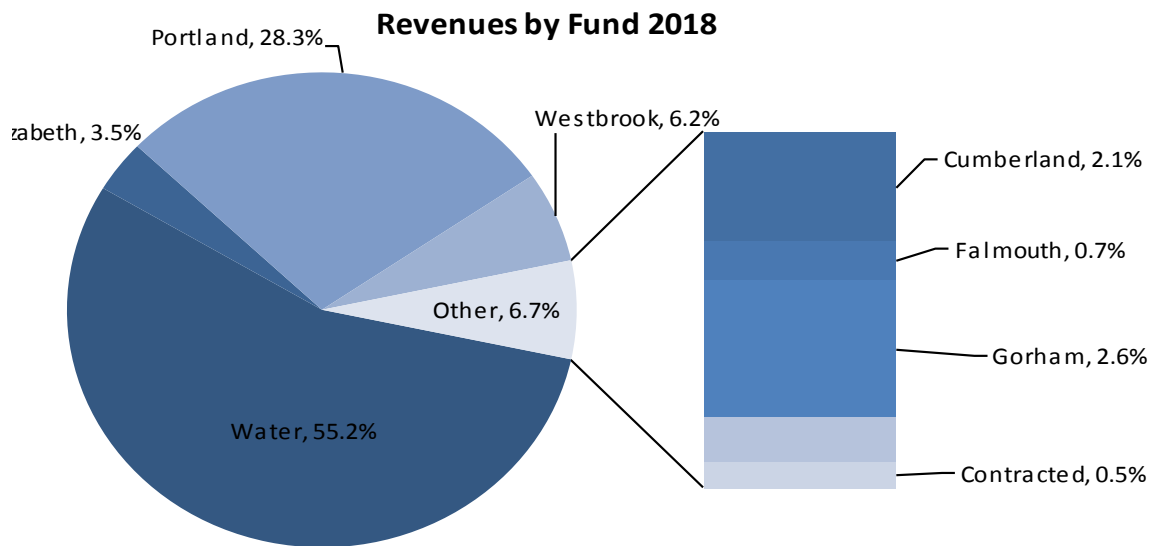
Falmouth Assessment and Scarborough and South Portland Contracted Services

Falmouth:						
	2016	2017	2017	2018	Budget	Budget
	Actual	Jan-Jun	Budget	Budget	Diff \$	Diff %
Assessment Income	\$36,012	\$131,802	\$263,604	\$310,056	\$46,452	17.6%
Interest Income	67	1,188	191	261	70	36.6%
Total Revenue	36,079	132,990	263,795	310,317	46,522	17.6%
Operating Expense	11,633	6,458	11,795	12,799	1,004	8.5%
Debt Service	27,667	120,000	252,000	297,518	45,518	18.1%
Total Expense	39,300	126,458	263,795	310,317	46,522	17.6%
Current Year Surplus (Deficit)	-3,221	6,532	0	0		
Prior Year Surplus	9,161	5,940	12,130	932		
Accumulated Surplus	5,940	12,472	12,130	932		
Scarborough:						
	2016	2017	2017	2018	Budget	Budget
	Actual	Jan-Jun	Budget	Budget	Diff \$	Diff %
Contracted Billing Income	\$10,824	\$5,490	\$10,980	\$11,256	\$276	2.5%
Interest Income	30	26	41	60	19	46.3%
Total Revenue	10,854	5,516	11,021	11,316	295	2.7%
Operating Expense	1,853	726	2,337	2,034	-303	-13.0%
Debt Service	5,715	3,071	6,142	6,372	230	3.7%
Renewal & Replace - Indirect	2,607	1,304	2,607	3,255	648	24.9%
Total Expense	10,175	5,101	11,086	11,661	575	5.2%
Current Year Surplus (Deficit)	679	415	-65	-345		
Prior Year Surplus	5,293	5,972	6,229	7,055		
Accumulated Surplus	5,972	6,387	6,164	6,710		
South Portland:						
	2016	2017	2017	2018	Budget	Budget
	Actual	Jan-Jun	Budget	Budget	Diff \$	Diff %
Contracted Billing Income	\$192,384	\$96,192	\$192,384	\$197,184	\$4,800	2.5%
Interest Income	378	499	921	1,040	119	12.9%
Total Revenue	192,762	96,691	193,305	198,224	4,919	2.5%
Operating Expense	118,407	56,720	122,229	128,047	5,818	4.8%
Debt Service	47,336	25,210	50,421	51,119	698	1.4%
Renewal & Replace - Indirect	19,785	9,930	19,860	25,461	5,601	28.2%
Total Expense	185,528	91,860	192,510	204,627	12,117	6.3%
Current Year Surplus (Deficit)	7,234	4,831	795	-6,403		
Prior Year Surplus	108,377	115,611	112,128	128,881		
Accumulated Surplus	115,611	120,442	112,923	122,478		

2018 Operating Budget by Fund Summary

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

	Total	Water	Cape Eliz	Cumber	Gorham	Portland	Westbk	Windham	Falmouth/ Contract
Beg Balance	\$11,889,442	\$6,320,897	\$440,347	\$369,856	\$328,583	\$3,262,220	\$898,340	\$132,331	\$136,868
Water Revenue	23,650,742	23,650,742	-	-	-	-	-	-	-
WW Assess	19,003,536	-	1,539,840	905,364	1,106,148	12,248,424	2,533,176	360,528	310,056
Contract Billing	208,440	-	-	-	-	-	-	-	208,440
Interest Income	295,386	151,440	7,990	6,768	13,030	67,800	42,867	4,130	1,361
Other Income	653,180	385,680	-	-	17,600	101,800	144,600	3,500	-
	43,811,284	24,187,862	1,547,830	912,132	1,136,778	12,418,024	2,720,643	368,158	519,857
Depart Expense	29,218,466	15,834,619	1,187,164	542,567	633,992	8,936,904	1,759,556	180,784	142,880
Debt Service	9,577,782	4,995,077	237,089	322,518	397,931	2,574,170	548,559	147,429	355,009
Renew I & Repl	4,835,651	3,134,123	123,577	84,957	104,855	906,950	412,528	39,945	28,716
	43,631,899	23,963,819	1,547,830	950,042	1,136,778	12,418,024	2,720,643	368,158	526,605
Surplus (Deficit)	179,385	224,043	-	(37,910)	-	-	-	-	(6,748)
Xfer-Cap Resrv	(62,288)	(62,288)	-	-	-	-	-	-	-
Ending Surplus	\$12,006,539	\$6,482,652	\$440,347	\$331,946	\$328,583	\$3,262,220	\$898,340	\$132,331	\$130,120



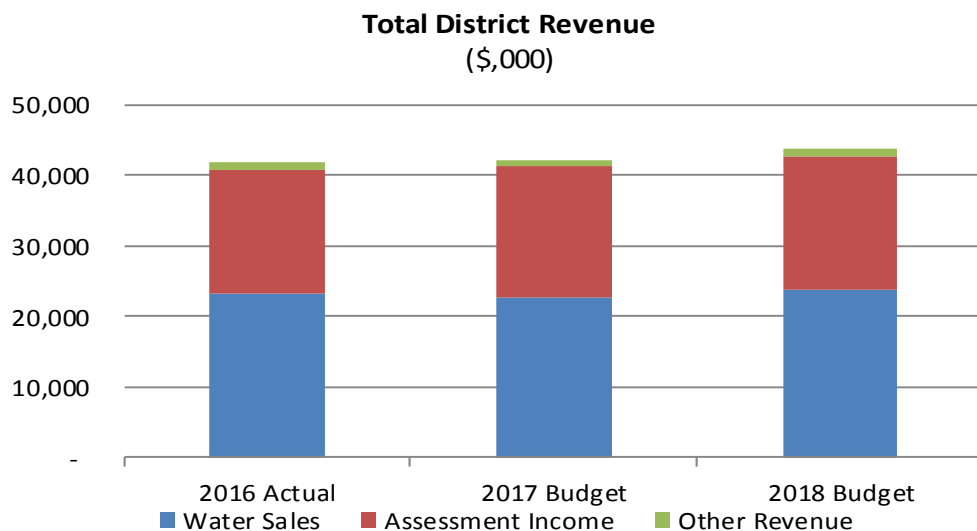
Introduction

Revenue is obtained from two major sources: payments by individual customers for water services (Water Revenue, 54.0%) and payments from municipalities for wastewater services (Wastewater Assessments, 43.4%). Water revenues in 2018 are expected to increase 3.7% over last year's budget as a result of the full year impact of the 1% May 1, 2017 rate increase and the proposed 3.8% rate increase to take effect in May. The Wastewater Assessments for Cape Elizabeth, Cumberland, Falmouth and Portland increased to cover estimated 2018 costs.

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

Other Water and Wastewater revenue (2.2% 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.

	2016 Actual	2017 Actual Jan-Jun	2017 Budget	2018 Budget	\$-Diff.	%-Diff.
Water Sales	\$23,301,888	\$10,697,559	\$22,800,978	\$23,650,742	\$849,764	3.7%
Assessment Income	17,529,312	9,209,352	18,418,704	19,003,536	584,832	3.2%
Contracted Billing Income	203,208	98,937	203,364	208,440	5,076	2.5%
Interest Income	163,470	146,508	216,744	295,386	78,642	36.3%
Other Income	754,394	269,525	616,800	653,180	36,380	5.9%
Total Revenues	\$41,952,272	\$20,421,881	\$42,256,590	\$43,811,284	\$1,554,694	3.7%



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	\$2.28
31 HCF	100 HCF	\$1.93
101 HCF	500 HCF	\$1.70
Greater than 500 HCF		\$0.95

- **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 is 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 balances and customer penalties.

The 2018 Budget of \$23,650,742 reflects an assumed rate usage was determined are on subsequent pages.

Water Sales rates have been adjusted annually. Average rate adjustments of 1% and 3.7% were made on May 1, 2017 and 2016, respectively. Prior to 2016, all water rate adjustments were subject to review and approval by the Maine Public Utilities Commission. Starting in 2016, the District's Board of Trustees can approve rate adjustments solely through their actions. The Board will continue to follow the same public input process before authorizing rate changes.

	2016 Actual	2017 Actual Jan-Jun	2017 Budget	2018 Budget	\$-Diff.	%-Diff.
Metered Revenue	\$20,937,122	\$9,503,811	\$20,379,107	\$21,168,104	\$788,997	3.9%
Public Fire Protection	1,318,921	669,507	1,352,224	1,383,918	31,694	2.3%
Private Fire Protection	964,618	489,269	974,647	1,003,720	29,073	3.0%
Other Water Revenue	81,227	34,972	95,000	95,000	-	0.0%
Total Water Sales	\$23,301,888	\$10,697,559	\$22,800,978	\$23,650,742	\$849,764	3.7%

Water Sales - Cost of Service Study

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

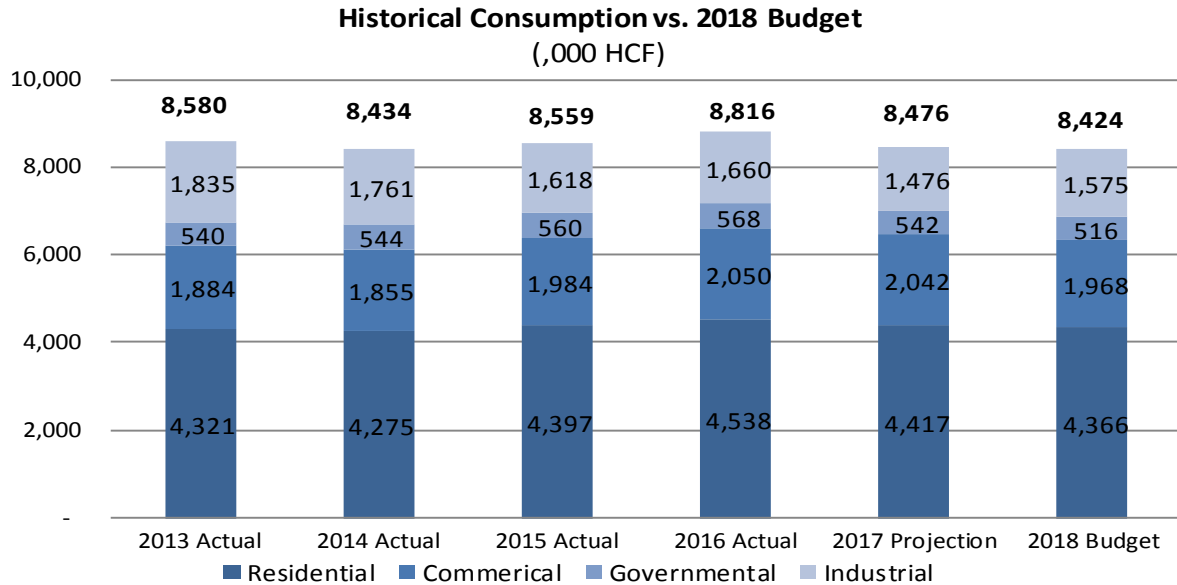
1. Costs are first assigned to various functions such as supply, treatment, pumping and distribution. The District’s accounting system readily provides this functional breakdown.
2. The functional costs are then allocated to various types of service provided by the water utility or cost components. The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

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

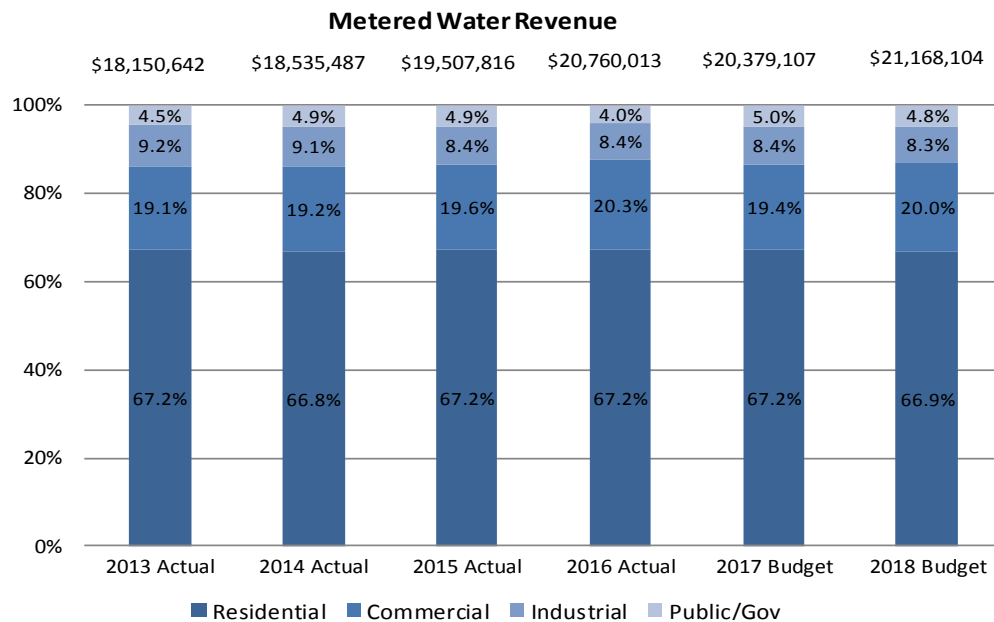
The last study was conducted in 2016. The study indicated that industrial and commercial customers were not paying the full cost of service. Because the rate change needed to those customers would create rate shock and impact economic development, a policy was established to gradually increase the rates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

Water Sales – Metered Revenue

Metered water revenue has risen from \$18.2 million in 2013 to the budgeted amount of \$21.2 million (16.6% increase). The rise in revenue was the result of rate increases offset by lower metered water usage. The District measures metered consumption by four customer classes: Residential, Commercial, Industrial, and Governmental/Public. The consumption patterns of each of these customer classes vary from one another and these variations have been taken into consideration in estimating the consumption used for the budget (see detailed discussion on subsequent pages).



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

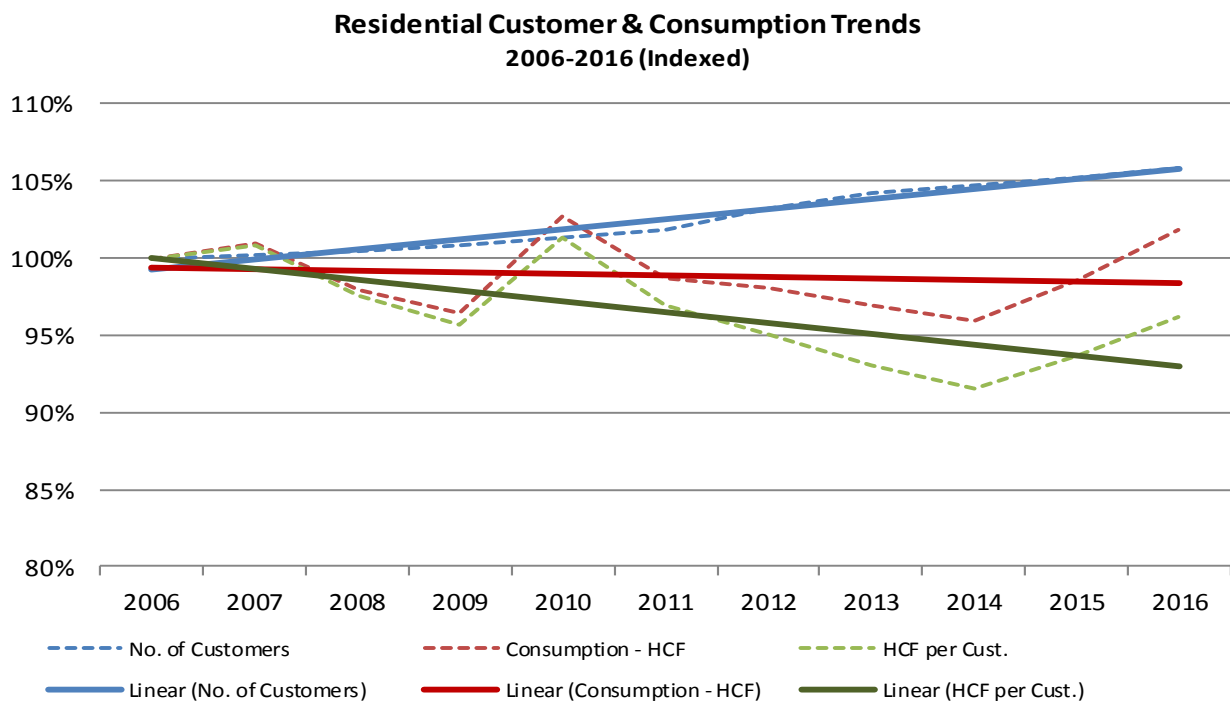


Water Sales – Metered Revenue - Consumption

Residential

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

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

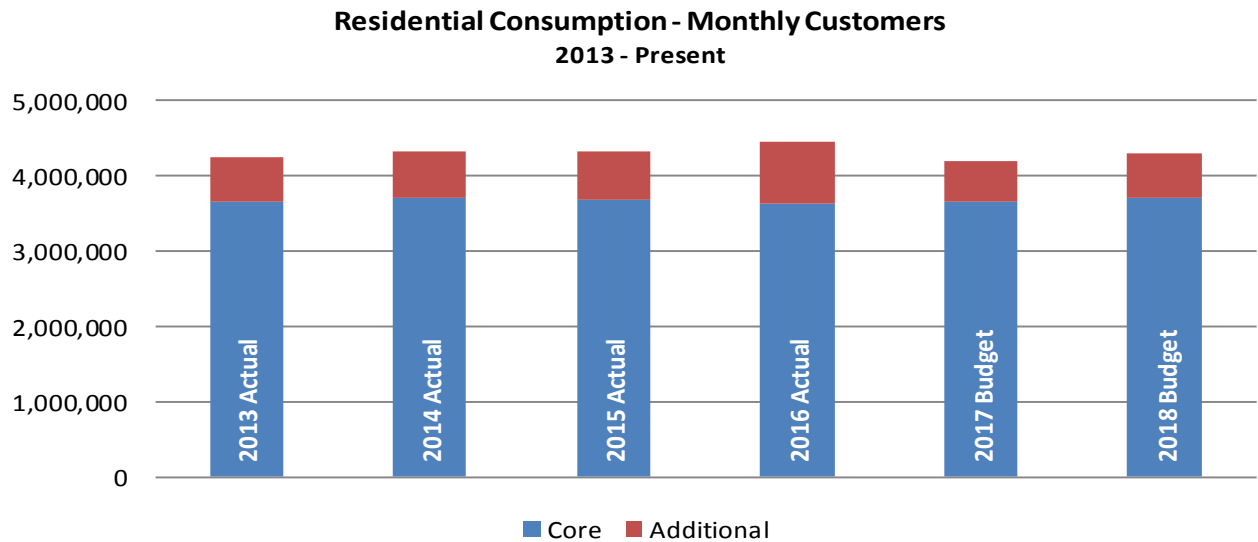


As shown above, overall consumption (red line) has been slowly declining over the last 10 years, even though the number of customers (blue) has been increasing. Therefore, the consumption per customer (green) has also been declining. These trends were taken into account when estimating the residential core usage for 2018.

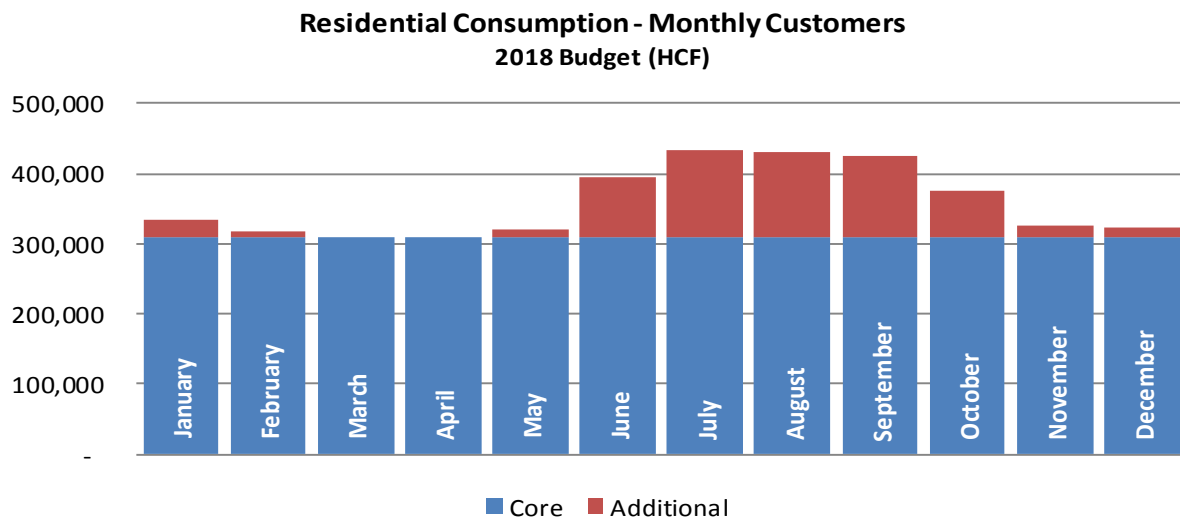
The additional usage was determined by averaging the percentage of additional consumption over the core in the sample years. For the 2018 budget, the core consumption was approximately 3.7 million HCF (hundred cubic feet) and the additional usage was 16% of the core. This falls in line with historical data.

Water Sales – Metered Revenue - Consumption

Residential (continued)



The monthly additional consumption was determined based on the average monthly consumption from a rolling three-year period ending December 2016. Approximately three-fourths of the additional consumption is used between the months of June through September.



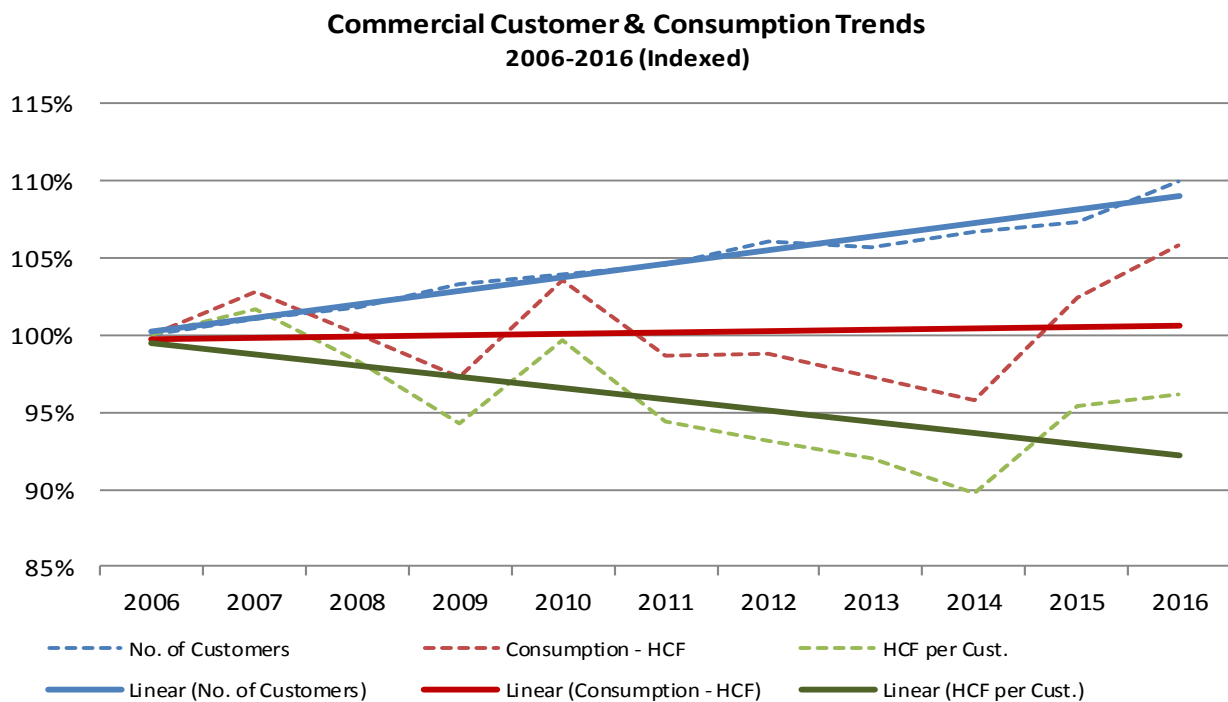
Consumption by seasonal customers makes up only 1.6% of total residential consumption. Residential seasonal consumption for the budget was based on a five-year period from 2012-2016 and is approximately 68,000 HCF for the year.

Water Sales – Metered Revenue - Consumption

Commercial

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

In the same manner as residential consumption, monthly customer consumption has been calculated by determining the core level of consumption, then estimating the amount of additional usage. The monthly core level was reached by taking the average of the lowest three months of each year in the sample data and annualizing that value. The rate of increase in customers is greater for this class than residential, but the decrease in consumption per customer is also larger. However, overall consumption has been trending up slightly and this was factored into establishing a core usage amount for the commercial class for 2018.

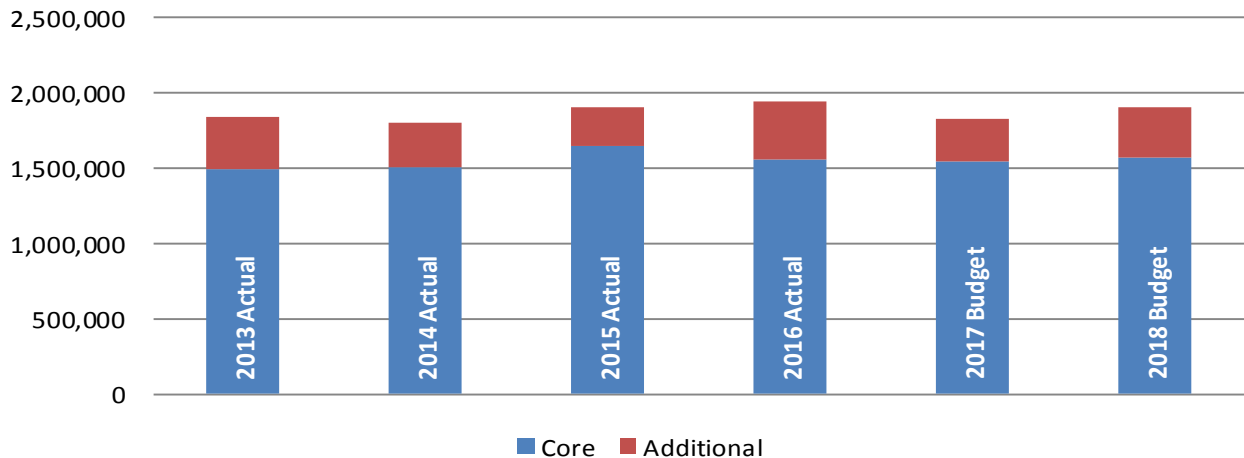


Additional usage was then determined by averaging the percentage of additional consumption over the core in the sample years. For the 2018 budget, the core consumption was raised to 1.6 million HCF from the 1.5 million HCF budgeted for 2017. The additional usage budgeted for 2018 is 21% of the core.

Water Sales – Metered Revenue - Consumption

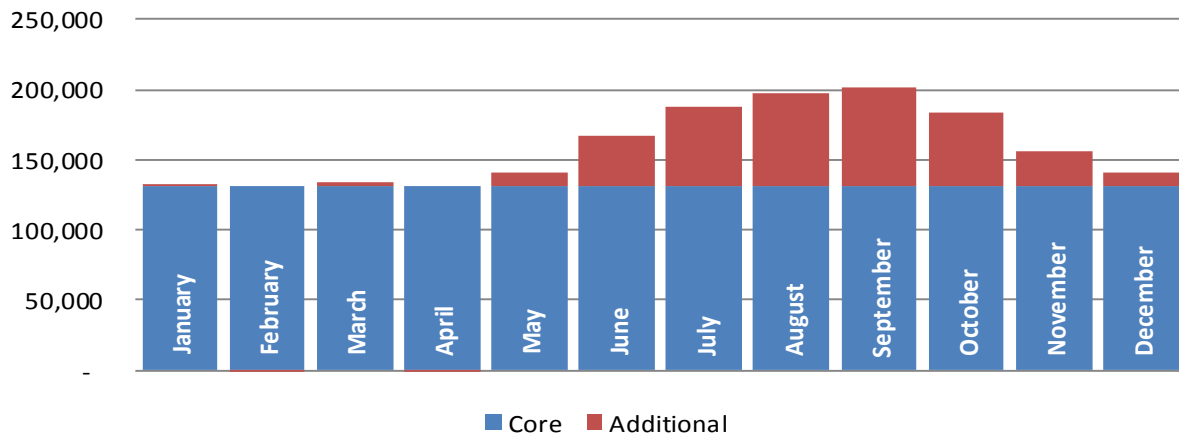
Commercial (continued)

Commercial Consumption - Monthly Customers
2013 - Present



The monthly additional consumption was determined based on the average monthly consumption from a rolling three-year period ending December 2016. Approximately two-thirds of the additional consumption is used between the months of June through September.

Commercial Consumption - Monthly Customers
2018 Budget (HCF)



Consumption by seasonal customers makes up only 3.3% of total commercial consumption. Commercial seasonal consumption for the budget was based on a five-year period from 2012-2016 and is approximately 64,000 HCF for the year.

Water Sales – Metered Revenue - Consumption

Industrial

Historically, approximately 90% of industrial usage has come from just five customers: Calpine, Texas Instruments (formerly National Semiconductor), Sappi Fine Paper, ON Semiconductor, and B&G Foods. The District makes an effort every year to contact these customers to get an estimate of their expected water needs for the coming year. Overall Industrial usage is budgeted at 1.6 million HCF for 2018.

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 2017, Calpine had some substantial breaks in usage when the plant was offline for planned maintenance.

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 specializing in analog devices and subsystems that operates a wafer fabrication plant in South Portland. 2018 usage is expected to be about the same as 2017.

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. In 2017, Sappi combined their packaging and release paper units. It is unclear at this point whether this reorganization will affect their water usage.

ON Semiconductor (formerly Fairchild Semiconductor)

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

B&G Foods

B&G Foods and its subsidiaries manufacture, sell, and distribute a diversified portfolio of high-quality, branded shelf-stable foods across the United States, Canada and Puerto Rico. They own B&M Beans that operates a bean cannery in Portland. 2018 usage is expected to be about the same as 2017.

Water Sales – Metered Revenue - Consumption

Public/Governmental

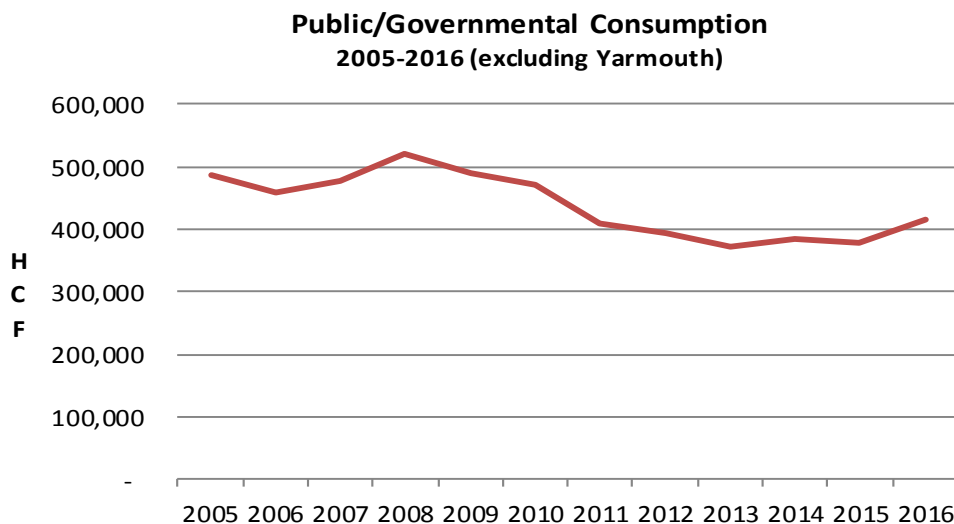
Yarmouth Water District

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

Wyman rarely ran in recent years because it competes with natural gas fired units in New England. They generate roughly half the region's power and are much cheaper to operate. Due to low oil prices the plant was in operation more than expected in 2015. In 2016, their usage decreased approximately 20,000 HCF bringing their yearly usage to around 155,000 HCF. 2017 usage is in line with 2016 and it is anticipated that their usage will remain at this level in 2018.

Other Public/Governmental Customers

Public/Governmental consumption has been in decline since the economic downturn. Government entities have sought out ways to decrease expenditures including their water and sewer bill. As a result, it is not anticipated that this decrease in consumption will return. This customer class showed the greatest decline in usage for 2017, therefore, budgeted usage for 2018 to be 6% below the 2017 budget.



Water Sales – Metered Revenue – Rates

Water Rate Schedule

A 3.82% increase is proposed to be implemented effective 5/1/2018. Board of Trustees will review and approve any rate adjustment in first quarter of 2018.

Current Rates: Effective 05/01/2017

Meter or Service Line Size	Member Rate	Non-member Rate
<u>Private Fire Monthly Fee</u>		
2	\$3.61	\$4.14
3	8.07	9.28
4	14.40	16.56
6	34.42	39.57
8	57.63	66.25
10	90.02	103.58
12	129.63	149.08
16	230.45	265.02
<u>Minimum Monthly Charges</u>		
5/8	\$9.11	\$10.47
3/4	10.74	12.33
1	13.92	16.04
1 1/2	23.60	27.13
2	33.99	39.07
3	61.67	70.90
4	92.83	106.75
6	179.36	206.25
8	283.18	325.67
10	410.02	471.53
12	542.77	624.17
Low income	2.28	2.63
<u>Monthly Volume Charge</u>		
First 100 Cf	minimum	minimum
Next 2,900 Cf	\$2.28	\$2.63
Next 7,000 Cf	1.93	2.21
Next 40,000 Cf	1.70	1.96
Over 50,000 Cf	0.95	1.11

Typical Customer Increases		Current	Proposed 3.82%	\$	%
Residential (per month)	.62" meter, 7 HCF	\$22.79	\$23.58	\$0.79	3.5%
Commercial (per month)	.75" meter, 80 HCF	173.36	181.05	7.69	4.4%
Small Industrial (per month)	2" meter, 1,300 HCF	1,675.21	1,762.26	87.05	5.2%
Large Industrial (per month)	8" meter, 56,000 HCF	53,889.40	56,724.16	2,834.76	5.3%
Sprinkler (per year)	6" meter	413.02	413.02	0	0%
Public Fire (per year)		1,350,000.00	1,400,624.00	50,624.00	3.7%
Seasonal (per year)	.62" meter	257.70	267.36	9.66	3.7%

Water Sales – Metered Revenue - Rates

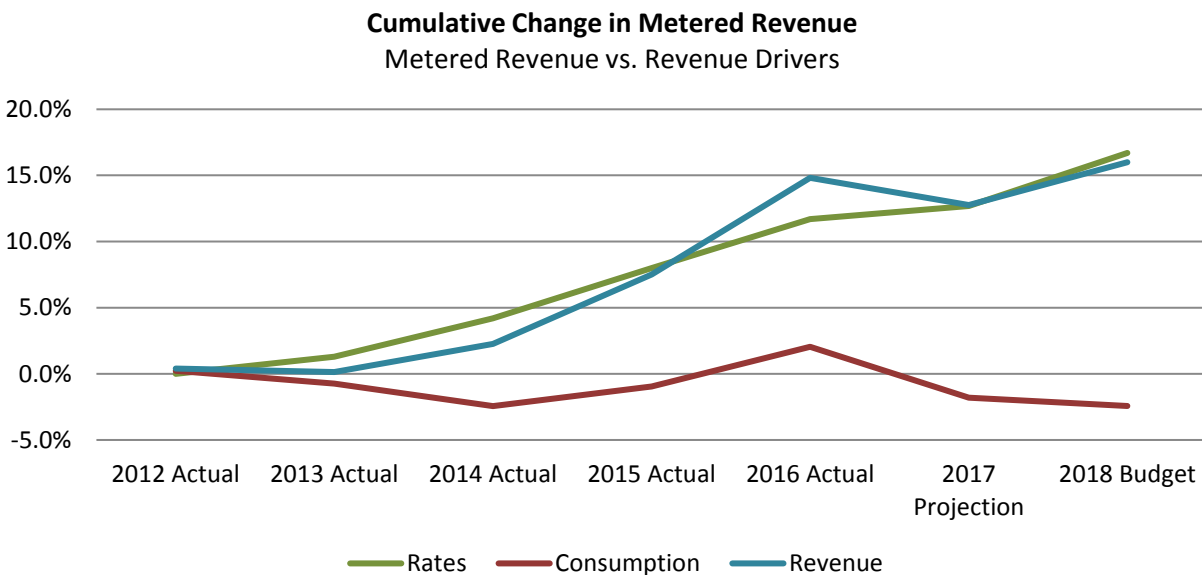
Water Rate Schedule (continue)

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

<u>Effective Date</u>	<u>Metered Rates</u>	<u>Public Fire Projection Rates</u>
01/01/07	3.5% increase	11.0% increase
01/01/08	3.8% increase	unchanged
01/01/09	7.0% increase	3.0% increase
05/01/10	3.6% increase	3.5% increase
05/01/11	2.0% increase	2.0% increase
05/01/13	1.3% increase	1.5% increase
05/01/14	2.9% increase	3.0% increase
05/01/15	3.8% increase	3.8% increase
05/01/16	3.7% increase	3.7% increase
05/01/17	1.0% increase	1.0% increase
05/01/18*	4.0% increase	3.75% increase

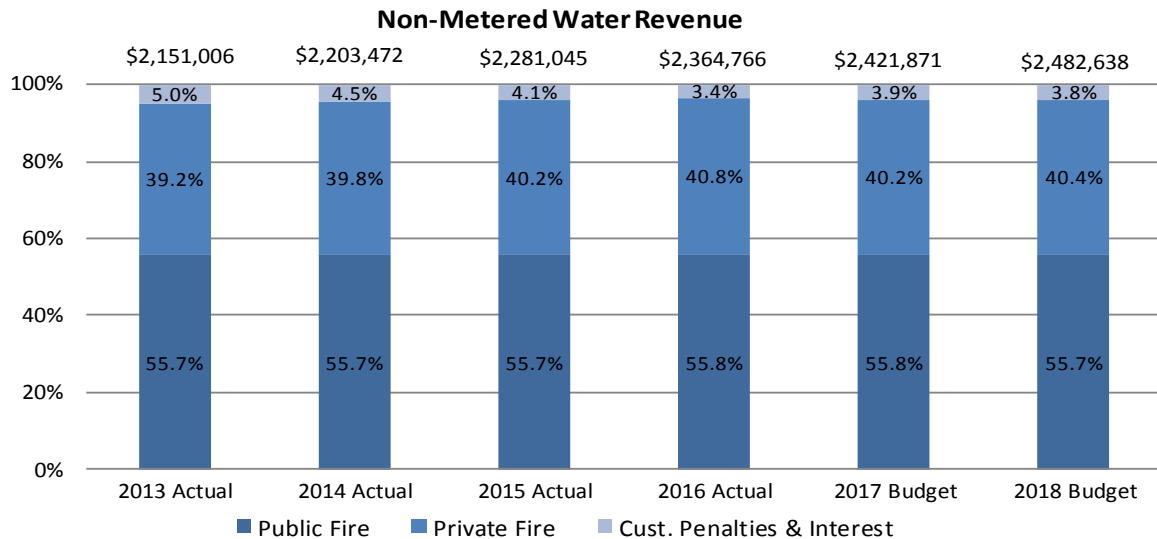
* = Proposed increase, subject to Board of Trustees approval.

Changes in metered revenue are strongly correlated to changes in rates. There is also a relationship between metered revenue growth and changes in consumption. The graph below reflects this correlation. The revenue line runs closely to rates, while changes in its slope correspond to changes in consumption. The 3.2% increase in water revenue (2017 Projection vs. 2018 Budget) was the result of a 4.0% increase in metered rates and a 0.6% decrease in forecasted consumption.

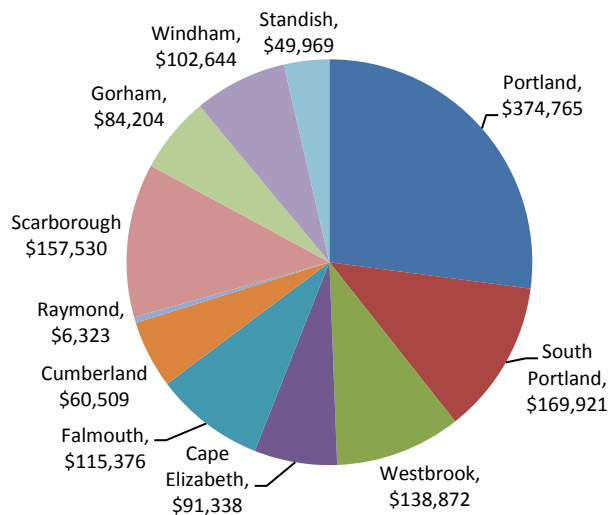


Water Sales – Non-Metered Revenue

Non-metered water revenue has risen from \$2.2 million in 2013 to the budgeted amount of \$2.5 million (15.4%). The rise in fire service revenue was the result of rate increases while the decline in customer penalties and interest corresponds to a decrease in the District's aged receivables balance.



Public Fire Protection Revenue



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

Private Fire Protection Revenue

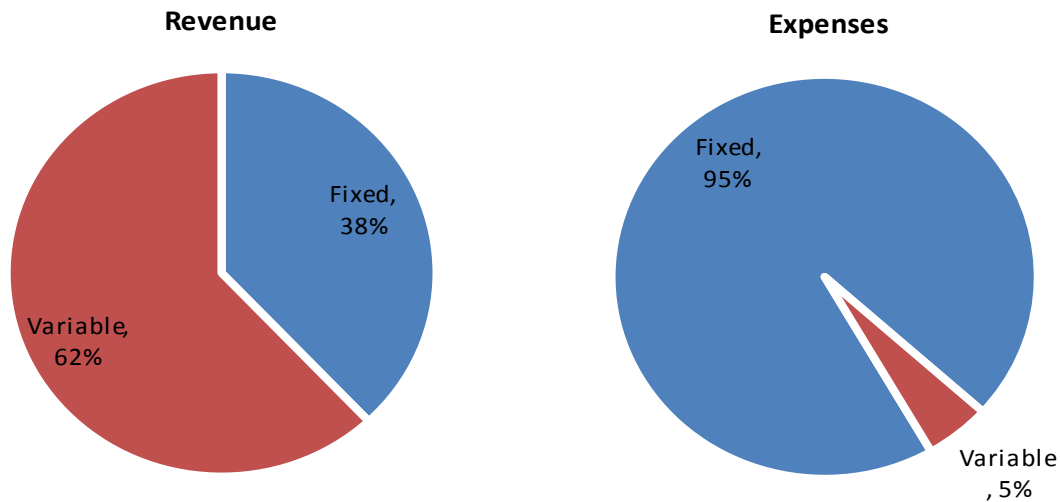
Service Line Size (inches)	Annual Fee	Number of Customers
2	\$ 43.32	309
3	\$ 96.84	0
4	\$ 172.80	202
6	\$ 413.04	1175
8	\$ 691.56	569
10	\$ 1,080.24	37
12	\$ 1,555.56	21
16	\$ 2,765.40	1

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

Water Sales - Long-Term Considerations

Revenue & Expense: Fixed vs. Variable

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



Slow Customer Growth

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

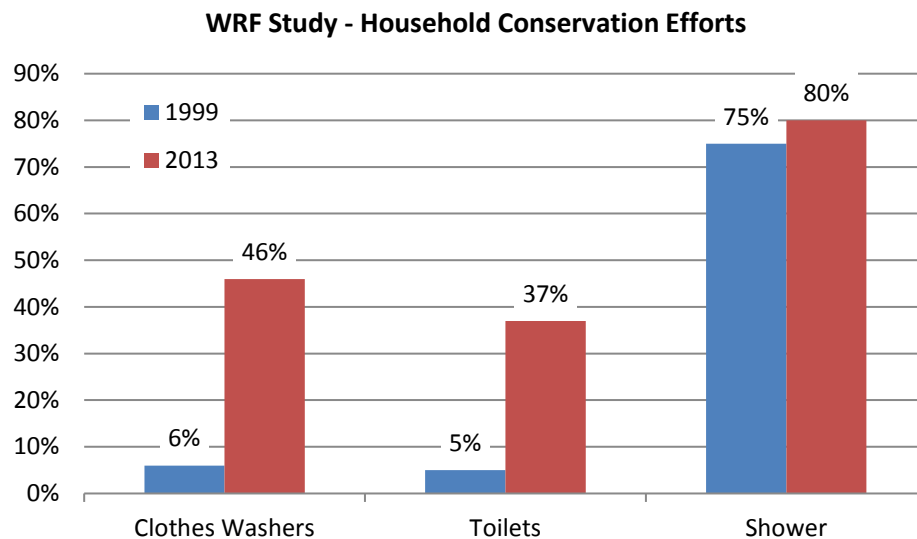
Cost of Service Gap

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

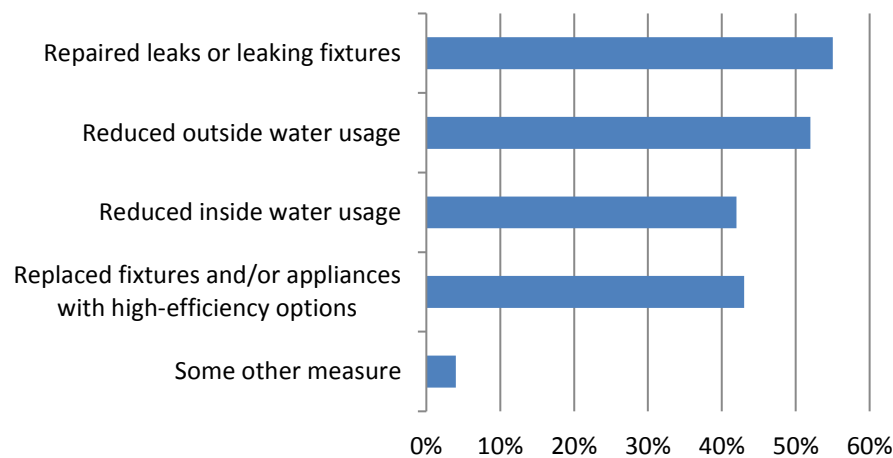
Water Sales - Long-Term Considerations (continued)

Decline in Consumption

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



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



Wastewater Assessment & Contracted Billing Income

Wastewater Assessments are amounts payable by each municipality for wastewater services provided by the District. The assessments cover the operating and debt service costs of operating wastewater facilities maintained by the District. The assessments are billed in monthly installments. In 2018, the assessments for Cape Elizabeth, Cumberland, Falmouth, and Portland were increased (see table below).

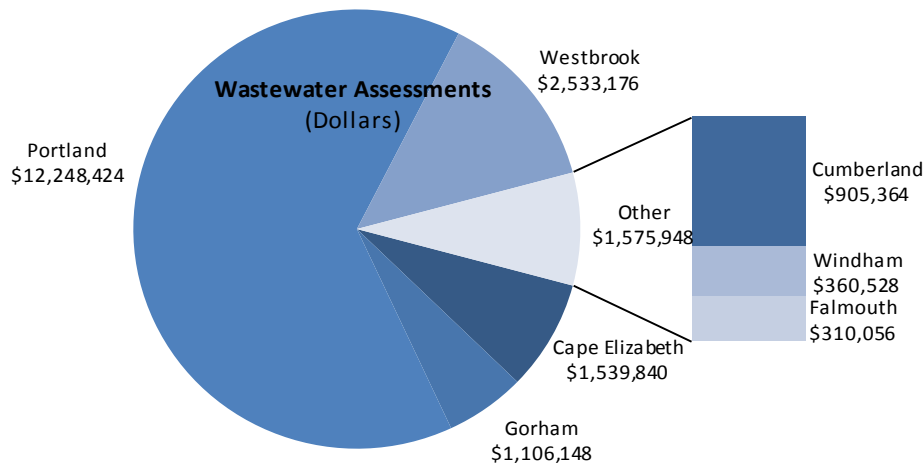
Wastewater Assessments

	2016 Actual	2017 Actual Jan-Jun	2017 Budget	2018 Budget	\$-Diff.	%-Diff.
Cape Elizabeth	\$1,443,408	\$734,346	\$1,468,692	\$1,539,840	\$71,148	4.8%
Cumberland	750,072	422,292	844,584	905,364	60,780	7.2%
Falmouth	36,012	131,802	263,604	310,056	46,452	17.6%
Gorham	1,106,148	553,074	1,106,148	1,106,148	-	0.0%
Portland	11,308,740	5,920,986	11,841,972	12,248,424	406,452	3.4%
Westbrook	2,533,176	1,266,588	2,533,176	2,533,176	-	0.0%
Windham	351,756	180,264	360,528	360,528	-	0.0%
	\$17,529,312	\$9,209,352	\$18,418,704	\$19,003,536	\$584,832	3.2%

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

Contracted Billing Income

	2016 Actual	2017 Actual Jan-Jun	2017 Budget	2018 Budget	\$-Diff.	%-Diff.
Scarborough	10,824	2,745	10,980	11,256	276	2.5%
South Portland	192,384	96,192	192,384	197,184	4,800	2.5%
	\$203,208	\$98,937	\$203,364	\$208,440	\$ 5,076	2.5%



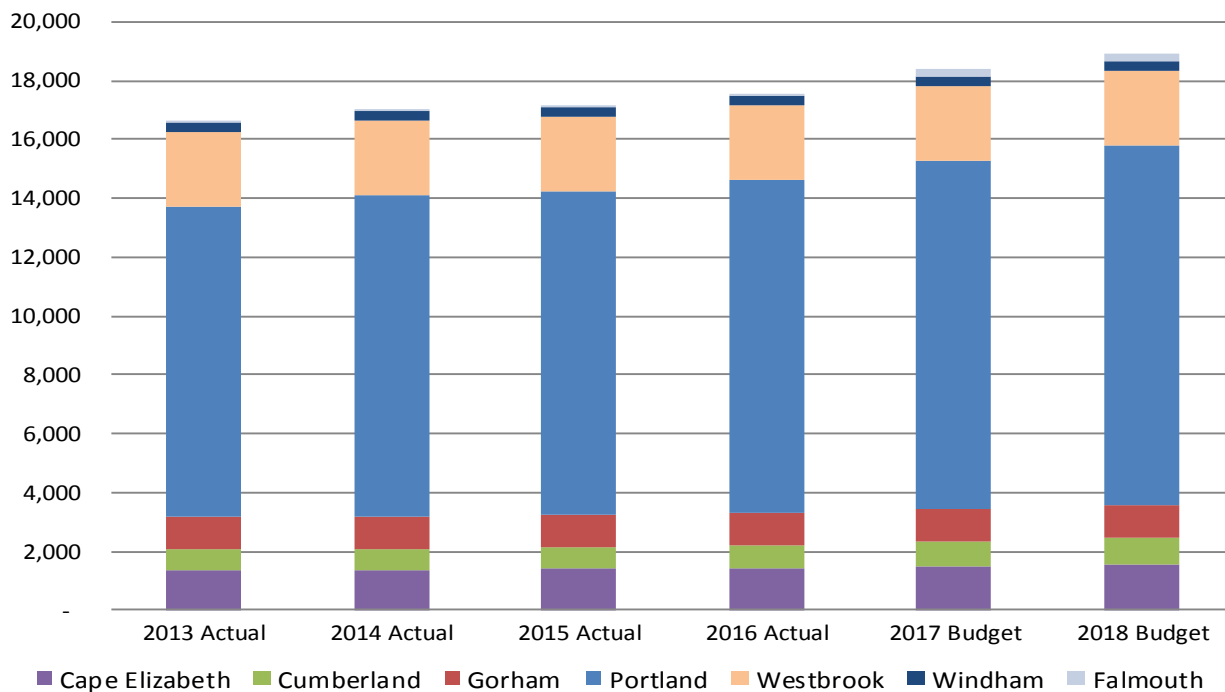
Wastewater Assessments Revenue Trend

Wastewater assessments rose from \$16.6 million in 2013 to a budgeted \$19.0 million in 2018 (an increase of 14.5%). While operating costs did increase over this time period, the majority of the increases were due to capital projects done to upgrade existing wastewater facilities. The significant increase in Falmouth is related to the debt service for upgrades of the Mill Creek WWPS and related force main.

Wastewater Assessments by Fund:

	Cape Eliz.	Cumberland	Gorham	Portland	Westbrook	Windham	Falmouth	Total
2013 Actual	1,365,084	713,940	1,084,464	10,540,044	2,533,176	351,756	15,012	16,603,476
2014 Actual	1,377,252	731,784	1,106,148	10,872,204	2,533,176	351,756	15,012	16,987,332
2015 Actual	1,412,112	731,784	1,106,148	10,981,308	2,533,176	351,756	15,012	17,131,296
2016 Actual	1,443,408	750,072	1,106,148	11,308,040	2,533,176	351,756	36,012	17,528,612
2017 Budget	1,468,692	844,584	1,106,148	11,841,972	2,533,176	360,528	263,604	18,418,704
2018 Budget	1,539,840	905,364	1,106,148	12,248,424	2,533,176	360,528	310,056	19,003,536

Assessments by Fund (2013-Present) (\$,000)



Current Municipal Wastewater Rates

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

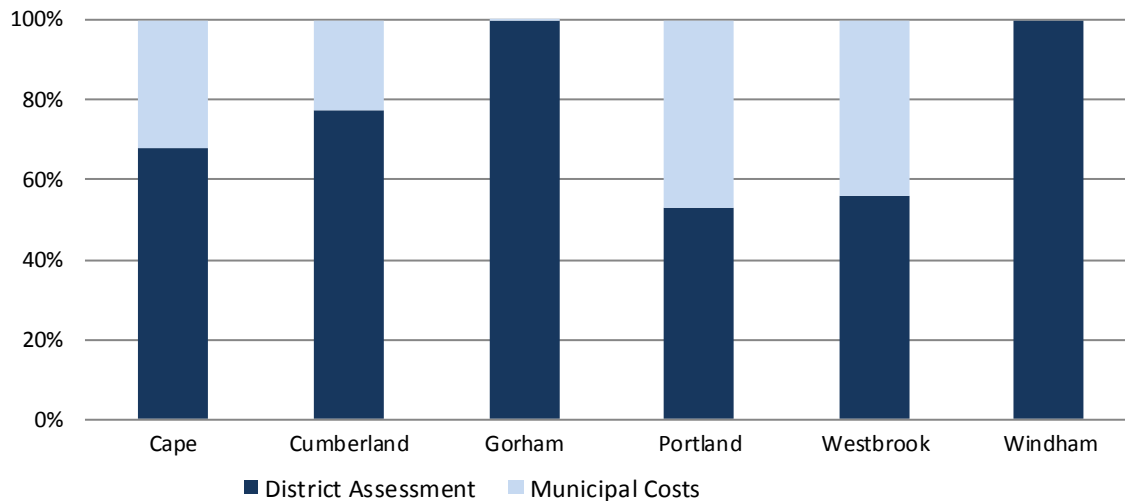
Sewer Rates Effective 7/01/2017

	Minimum HCF	Minimum Charge	Additional HCF
Portland	1	\$9.65	\$9.65
Cumberland	0	36.92	5.29
South Portland	1	5.01	5.01
Cape Elizabeth	1	49.50	5.68
Westbrook	1	11.13	6.13
Gorham	1	13.74	6.29
Windham	5	48.84	3.24

HCF= Hundred Cubic Feet (748 gallons)

The chart below indicates the percent of sewer fees collected in 2016 that the municipalities used to pay the District's assessment and their internal costs. In 2016, Windham's sewer fees were less than District's assessment by \$21,780. The shortfall was covered by the town's prior year surplus or general fund appropriation.

Municipal Sewer Fees Collected in 2016



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 were based on the current return and cash balances as of the June 2017. Rates of return have been trending upward since 2016.

In 2008, the Windham fund purchased assets from the Westbrook fund. This purchase was funded by a loan between funds of \$264,733 and has an average interest rate of 4.395%. Westbrook will receive \$5,964 from that loan in 2018.

	2016 Actual	2017 Actual Jan-Jun	2017 Budget	2018 Budget	\$-Diff.	%-Diff.
Water Fund	\$89,988	\$74,386	\$113,072	\$151,440	\$38,368	33.9%
Wastewater Operating Funds:						
Cape Elizabeth	4,741	3,702	6,729	7,990	1,261	18.7%
Cumberland	4,125	3,265	5,788	6,768	980	16.9%
Falmouth	67	1,188	191	261	70	36.6%
Gorham	8,034	6,229	10,365	13,030	2,665	25.7%
Portland	26,584	31,919	43,909	67,800	23,891	54.4%
Westbrook	27,148	23,321	32,488	42,867	10,379	31.9%
Windham	<u>2,375</u>	<u>1,973</u>	<u>3,240</u>	<u>4,130</u>	<u>890</u>	<u>27.5%</u>
	73,074	71,597	102,710	142,846	40,136	39.1%
Contracted Billing:						
Scarborough	30	26	41	60	19	46.3%
South Portland	<u>378</u>	<u>499</u>	<u>921</u>	<u>1,040</u>	<u>119</u>	<u>12.9%</u>
	408	525	962	1,100	138	14.3%
Total	\$ 163,470	\$ 146,508	\$ 216,744	\$ 295,386	\$ 78,642	36.3%

Other Income

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

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

Water Fund:	2016 Actual	2017 Actual Jan-Jun	2017 Budget	2018 Budget	\$-Diff.	%-Diff.
Cross Connection Fees	\$40,293	\$23,078	\$30,000	\$40,300	\$10,300	34.3%
Customer Connection Fees	79,414	33,934	85,000	79,400	(5,600)	-6.6%
Customer Activation Fee	78,805	33,143	70,000	78,800	8,800	12.6%
Jobbing Surcharge	68,054	25,107	60,000	68,100	8,100	13.5%
Miscellaneous Income	<u>208,987</u>	<u>93,332</u>	<u>72,900</u>	<u>119,080</u>	<u>46,180</u>	<u>63.3%</u>
Total Water Division	\$475,553	\$208,594	\$317,900	\$385,680	\$67,780	21.3%

Wastewater Funds:	2016 Actual	2017 Actual Jan-Jun	2017 Budget	2018 Budget	\$-Diff.	%-Diff.
Septage - Gorham	\$17,560	\$3,629	\$15,200	\$17,600	\$2,400	15.8%
Septage - Portland	101,810	33,346	140,000	101,800	(38,200)	-27.3%
Septage - Westbrook	111,520	23,080	109,000	111,500	2,500	2.3%
Septage - Windham	3,512	726	2,700	3,500	800	29.6%
Miscellaneous Income	<u>44,439</u>	<u>150</u>	<u>32,000</u>	<u>33,100</u>	<u>1,100</u>	<u>n/a</u>
Total Wastewater Division	278,841	60,931	298,900	267,500	(31,400)	-10.5%
Total Water & Wastewater	\$754,394	\$269,525	\$616,800	\$653,180	\$36,380	5.9%

Projections for Rate-Making Purposes

Multi-year projections are made for the water fund's revenue and each of the wastewater funds' assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projections is provided below with a detail of each fund in the Budget by Fund section. The proposed budget is compared to the projection provided to the Board of Trustees and Municipal officials in last year's budget.

	Proposed 2018 Budget	Prior Year 2018 Projection	2019 Projection	2020 Projection	2021 Projection
Water	\$ 23,650,742 3.7%	\$ 23,941,027 5.0%	\$ 24,951,533 5.5%	\$ 26,573,383 6.5%	\$ 28,034,919 5.5%
Wastewater:					
Cape Elizabeth	1,539,840 4.8%	1,562,036 6.4%	1,632,230 6.0%	1,795,453 10.0%	1,867,271 4.0%
Cumberland	905,364 7.2%	903,705 7.0%	932,525 3.0%	960,501 3.0%	984,514 2.5%
Gorham	1,106,148 0.0%	1,128,271 2.0%	1,133,802 2.5%	1,235,844 9.0%	1,421,221 15.0%
Portland	12,248,424 3.4%	12,457,755 5.2%	12,677,119 3.5%	13,260,266 4.6%	13,870,238 4.6%
Westbrook	2,533,176 0.0%	2,659,835 5.0%	2,735,830 8.0%	2,954,696 8.0%	3,220,619 9.0%
Windham	360,528 0.0%	365,936 1.5%	371,344 3.0%	389,911 5.0%	448,398 15.0%
Total Wastewater	\$ 18,693,480	\$ 19,077,538	\$ 19,482,850	\$ 20,596,671	\$ 21,812,261

Water Operating Fund - The proposed 2018 water revenue budget is lower than the projection done in 2015 for 2018 by \$290,285. The 2018 budget includes an average 3.8% increase in water rates, effective May 1, 2018 and revenues increases of 5.0% to 6.5% for 2019 to 2021 are projected. The Board of Trustees will review the multi-year plan during January 2018.

Wastewater Operating Funds - All 2018 wastewater assessments are at or below projections that were provided to the wastewater municipalities for ratemaking purposes last year, except Cumberland is slightly higher primarily due to their request to upgrade on a pump station on Route 1. The updated 2019-2021 are preliminary and will be reviewed with municipal officials in November 2017 before being finalized.

Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 2.5% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2017 5-year capital plan (new water debt assumed a 20-year life at 5%; new wastewater debt assumed a 20 year at 3%). Assumed water capital reserve bonds were issued for 10 years. A summary of capital expenditures and funding source is included.
- Estimated wastewater treatment assessments from third-parties are included.
- Impact of new asset, billing and customer relations software operating costs was incorporated.

Fund Balance

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

It is projected that all of the funds will be above the operating fund target at the end of 2018.

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 1/1/2017	Projected 2017	Budget 2018	Balance 12/31/2018	Target Balance	Projection %
Water	\$5,623,568	\$697,329	\$161,755	\$6,482,652	\$5,990,955	27.1%
Cape Elizabeth	398,772	41,575	-	440,347	\$386,958	28.4%
Cumberland	328,678	41,178	(37,910)	331,946	\$237,511	34.9%
Gorham	310,000	18,583	-	328,583	\$284,195	28.9%
Portland	3,150,009	112,211	-	3,262,220	\$3,104,506	26.3%
Westbrook	844,744	53,596	-	898,340	\$680,161	33.0%
Windham	109,099	23,232	-	132,331	92,040	35.9%
	<u>\$10,764,870</u>	<u>\$987,704</u>	<u>\$123,845</u>	<u>\$11,876,419</u>	<u>\$10,776,326</u>	<u>27.6%</u>

Falmouth & Contracted Billing Operating Surpluses:

	Balance 1/1/2017	Projected 2017	Budget 2018	Balance 12/31/2018
Falmouth	\$5,940	(\$5,008)	\$0	\$932
Scarborough	5,972	1,083	(345)	6,710
So. Portland	115,609	13,272	(6,403)	122,478
	<u>\$127,521</u>	<u>\$9,347</u>	<u>(\$6,748)</u>	<u>\$130,120</u>

Combined Surpluses **\$10,892,391** **\$997,051** **\$117,097** **\$12,006,539**

Watershed Protection Land Funds (Goal 15.0%)

	Balance 1/1/2017	Projected 2017	Budget 2018	Balance 12/31/2018	Target Balance	Projection %
Watershed Reserve	\$2,318,482	-	-	\$2,318,482	\$3,547,611	9.8%
Land Cash Reserve	718,995	(480,783)	-	238,212		
	<u>\$3,037,477</u>	<u>(\$480,783)</u>	<u>-</u>	<u>\$2,556,694</u>	<u>\$3,547,611</u>	<u>10.8%</u>

Introduction

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

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

2018 Financial Summary by Category

	2017 Budget	2018 Budget	Diff \$	Diff %
Salaries & Wages	\$10,625,197	\$11,072,089	\$446,892	4.2%
Employee Benefits	5,492,790	5,602,176	109,386	2.0%
Biosolids Disposal	1,451,816	1,504,698	52,882	3.6%
Chemicals	989,330	976,654	-12,676	-1.3%
Contracted Services	4,088,905	4,265,913	177,008	4.3%
Deferred Cost W/O	14,400	14,400	0	0.0%
Heat/Fuel Oil	342,764	313,193	-29,571	-8.6%
Insurance	201,206	212,657	11,451	5.7%
Materials & Supplies	1,634,986	1,661,287	26,301	1.6%
Other Expense	707,256	727,158	19,902	2.8%
Purchased Power	1,991,651	1,935,093	-56,558	-2.8%
Regulatory/Taxes	218,015	216,465	-1,550	-0.7%
Tele/Other Utilities	348,282	377,004	28,722	8.2%
Transportation	<u>1,210,427</u>	<u>1,133,133</u>	<u>-77,294</u>	<u>-6.4%</u>
Grand Total	29,317,025	30,011,920	694,895	2.4%
Trans Offset	<u>-814,406</u>	<u>-793,454</u>	<u>20,952</u>	<u>-2.6%</u>
Fund Expense	28,502,619	29,218,466	715,847	2.5%

2018 Financial Summary by Department

	Number of Employees	2017 Budget	Number of Employees	2018 Budget	Budget Diff \$	Budget Diff %
Water Operations	53	\$8,280,824	54	\$8,464,029	\$183,205	2.2%
Wastewater Services	38	9,250,601	38	9,382,172	131,571	1.4%
Environmental Services	16	1,947,919	17	2,063,638	115,719	5.9%
Engineering Services	30	4,104,732	31	4,198,336	93,604	2.3%
Administration	40	5,459,534	42	5,637,880	178,346	3.3%
Non-Departmental	1	<u>273,415</u>	<u>0</u>	<u>265,865</u>	<u>(7,550)</u>	<u>-2.8%</u>
Total	178	\$29,317,025	182	\$30,011,920	\$694,895	2.4%

Departmental Expense by Category

Salaries/Wages:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
660111 - SALARIES/WAGES NON-UNION	3,857,166	1,966,419	4,168,157	4,317,232	149,075	3.6%
660121 - WAGES/REGULAR UNION	5,421,832	2,717,942	5,631,544	5,880,826	249,282	4.4%
660122 - WAGES/OVERTIME UNION	454,758	225,375	418,916	471,819	52,903	12.6%
660123 - WAGES/DOUBLETIME UNION	40,951	22,931	45,939	50,428	4,489	9.8%
660124 - WAGES/STANDBY TIME UNION	132,313	74,476	127,655	131,996	4,341	3.4%
660131 - WAGES - REGULAR - TEMPS	125,131	76,131	157,820	151,788	(6,032)	-3.8%
660132 - WAGES - OVERTIME- TEMPS	541	81	-	-	-	n/a
660136 - CONTRACTED - TEMP	7,454	3,565	48,166	41,000	(7,166)	-14.9%
66014 - VACATION ACCRUAL	50,921	-	-	-	-	-
660141 - TRUSTEES COMPENSATION	23,075	9,050	27,000	27,000	-	0.0%
660112 - WAGES/OVERTIME NON-UNION	132	173	-	-	-	n/a
Salaries & Wages Total	10,114,274	5,096,143	10,625,197	11,072,089	446,892	4.2%

Labor rates for all employees (union and non-union) were assumed to be 3.0% higher than the rates paid on July 1, 2017.

Combined the two regular labor accounts (660111 & 660121) increased \$398,357 (4.1%) due to the assumed pay rate increase and the increase in the headcount from 178 to 182. The impact of the additional four (4) positions is an approximately \$211,000 or just over half of the regular labor increase.

Budgeted hours for overtime/doubletime/standby rose 8.8% (1,724 hours) to reflect actual results while hours for temporary employees decreased 14.9%.

The budgeted dollars for labor reflect work on operating (O&M) activities. Labor planned for capital projects is included as part of the Capital Improvement Plan (CIP) later in this document. Overall, the percentage of labor planned for CIP projects increased from 2.9% of total labor in 2017 to 3.2% in 2018 (an increase of \$51,282 or 16.1%).

As noted above, the District's overall number of regular (non-temporary) employees increased by four (4) from 2017 and 2018 to 182.

Positions	2017 Budget	2018 Budget	Change
Full Time	176	180	4
Part Time	2	2	0
Total	178	182	4

The Human Resources section has additional details.

Departmental Expense by Category (continued)

Employee Benefits:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
660401 - FICA - EMPLOYERS' SHARE	756,565	392,806	809,135	843,877	34,742	4.3%
660405 - SAFETY/WHY PROGRAM ITEMS	34,728	8,750	35,511	37,470	1,959	5.5%
660411 - MEALS ALLOWANCE	8,410	4,520	7,711	8,640	929	12.0%
660413 - PWD TRAINING PROGRAM	515	700	-	-	-	n/a
6604151 - FIELD UNIFORMS	1,255	1,200	1,275	1,290	15	1.2%
660418 - STIPENDS	14,500	14,100	14,800	14,700	(100)	-0.7%
660419 - EMPLOYEE BENEFITS-MISC OTH	35,717	10,445	3,800	30,580	26,780	704.7%
660491 - EE BENEFITS-REG/SAL	4,086,546	2,252,797	4,620,558	4,665,619	45,061	1.0%
Employee Benefits Total	4,938,236	2,685,318	5,492,790	5,602,176	109,386	2.0%

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 2018 Budget, the percentage is 45.75% which is a decrease of 1.4% over 2017's percentage of 47.15%. Total benefit costs rose just \$60,563 (1.3%), that combined with the higher headcount decreased the overall percentage.

The Human Resource section has additional details.

Biosolids Disposal:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
663571 - BIOSOLIDS DISPOSAL	1,518,720	952,872	1,451,816	1,504,698	52,882	3.6%
Biosolids Disposal Total	1,518,720	952,872	1,451,816	1,504,698	52,882	3.6%

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	2017	2018	Change	%	2017 % Solids	2018 % Solids
Portland (East End)	16,667.0	18,157.0	1,490.0	8.9%	23.0%	21.0%
Westbrook	5,162.0	3,916.0	(1,246.0)	-24.1%	15.5%	21.5%
Cape Elizabeth	280.0	280.0	-	0.0%	23.0%	21.0%
Peaks Island	45.0	45.0	-	0.0%	23.0%	21.0%
Total	22,154.0	22,398.0	244.0	1.1%		

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 \$65.99; the 2018 Budget assumes a 2.0% CPI increase and an estimated 2018 rate of \$67.18. This rate is \$1.50/wet ton above the prior year's budget assumption of \$65.68. With the completion of a \$1 million dewatering system upgrade, Westbrook's biosolids volume and costs are expected to decrease by \$83,000.

Departmental Expense by Category (continued)

Chemicals:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
66181 - AMMONIA	29,705	12,331	26,715	24,168	(2,547)	-9.5%
661811 - SODIUM BICARBONATE	12,265	10,584	12,911	18,725	5,814	45.0%
661812 - SODIUM BISULFITE	142,299	80,411	152,675	156,824	4,149	2.7%
66182 - CAUSTIC SODA	70,399	32,479	95,583	98,975	3,392	3.5%
66183 - FLUORINE COMPOUND	56,279	22,787	53,081	38,557	(14,524)	-27.4%
66184 - ZINC ORTHOPHOSPHATE	78,344	33,460	75,093	71,461	(3,632)	-4.8%
66185 - SODIUM HYPOCHLORITE	376,308	152,243	360,933	320,396	(40,537)	-11.2%
66189 - POLYMER	199,112	126,743	152,836	182,233	29,397	19.2%
661892 - LIQUID OXYGEN (LOX)	60,011	30,441	53,293	58,215	4,922	9.2%
661899 - OTHER CHEMICALS	4,817	1,444	6,210	7,100	890	14.3%
Chemicals Total	1,029,539	502,923	989,330	976,654	(12,676)	-1.3%

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

The biggest change was the budget reduction (\$52,039) for sodium hypochlorite (66185) at the East End Wastewater Treatment Facility (EEWWTF) due process changes with the aeration upgrade. Offsetting that, was an increase in the polymer (66189) budget at EEWWF (\$26,697) in order to improve the effectiveness of the sludge dewatering process at that facility.

	2017 Assumption		2018 Assumption		% Change		Budget
	Units	Per Unit	Units	Per Unit	Units	Per Unit	Dollars
<u>Water Treatment (Ozone)</u>							
Ammonia	16,615	\$1.608	16,924	\$1.428	1.9%	-11.2%	-\$2,547
Caustic Soda	87,541	1.010	90,881	1.010	3.8%	0.0%	\$3,388
Fluorine Compound	19,552	2.703	19,761	1.939	1.1%	-28.2%	-\$14,522
Liquid Oxygen	108,923	0.489	118,806	0.490	9.1%	0.2%	\$4,922
Sodium Hypochlorite	150,625	0.646	151,332	0.720	0.5%	11.5%	\$11,717
Zinc Orthophosphate	17,575	4.273	18,353	3.894	4.4%	-8.9%	-\$3,625
<u>East End WWTF</u>							
Polymer	137,592	0.850	169,000	0.850	22.8%	0.0%	\$26,697
Sodium Bisulfite	109,968	1.210	105,600	1.270	-4.0%	5.0%	\$1,050
Sodium Hypochlorite	370,060	0.650	290,000	0.650	-21.6%	0.0%	-\$52,039
<u>Westbrook WWTF</u>							
Polymer	24,000	1.350	26,000	1.350	8.3%	0.0%	\$2,703
Sodium Bisulfite	8,873	2.090	7,900	2.720	-11.0%	30.1%	\$2,943
Sodium Hypochlorite	29,802	0.650	29,000	0.650	-2.7%	0.0%	-\$521

Departmental Expense by Category (continued)

Contracted Services:

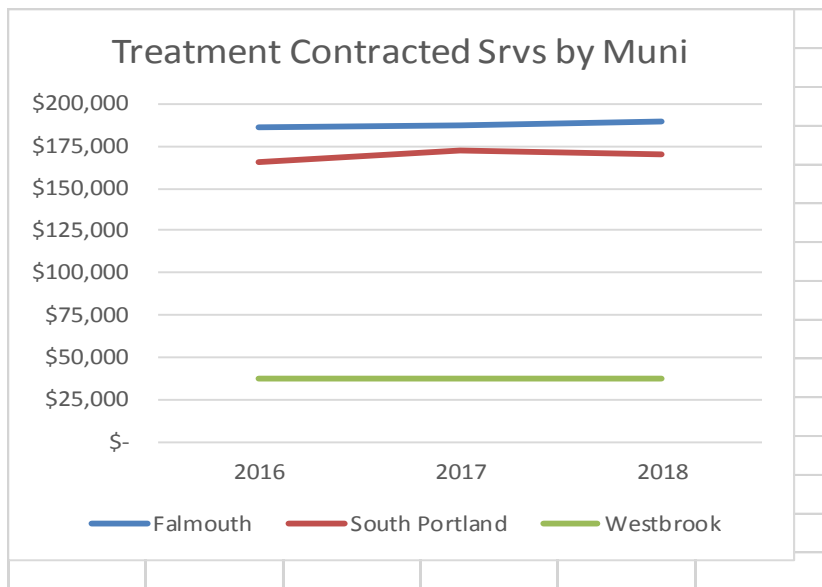
	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
662063 - COPIER MAINTENANCE/TONER	16,544	6,534	12,500	13,500	1,000	8.0%
6631 - ENGINEERING SERVICES	70,779	34,023	191,350	244,800	53,450	27.9%
6632 - ACCOUNTING SERVICES	34,000	35,875	34,500	35,000	500	1.4%
66331 - LEGAL - LABOR RELATIONS	103,310	21,134	60,000	100,000	40,000	66.7%
66333 - BOND COUNSEL	7,500	-	7,500	7,500	-	0.0%
66339 - LEGAL - OTHER	26,690	35,814	34,500	34,500	-	0.0%
66352 - CONSTRUCTION SERVICES	3,842	386	4,438	4,500	62	1.4%
663521 - TRAFFIC CONTROL	58,038	22,234	54,379	60,050	5,671	10.4%
6635221 - PAVING - MINOR REPAIR	506,474	141,637	349,150	426,000	76,850	22.0%
663523 - SIDEWALK	17,986	2,944	18,653	18,500	(153)	-0.8%
663524 - STREET OPENING	72,190	20,190	63,645	60,680	(2,965)	-4.7%
663525 - CONTRACTOR CONSTRUCTION	757,448	147,233	608,986	583,500	(25,486)	-4.2%
66353 - REPAIR SERVICES	44,908	23,064	63,500	62,500	(1,000)	-1.6%
66354 - MAINTENANCE SERVICES	813,325	292,462	686,451	684,105	(2,346)	-0.3%
663542 - LARGE METER TESTING	11,219	-	12,500	12,500	-	0.0%
663543 - CSO FLOW MONITORING	140,173	31,843	191,395	191,395	-	0.0%
663544 - MAINT SERVICES - CCTV	59,763	5,625	65,750	81,250	15,500	23.6%
663545 - RADIO SERVICING AND EQUIP	6,336	471	4,000	3,000	(1,000)	-25.0%
663546 - MAINTENANCE - SNOW REMOVL	102,199	83,280	108,450	116,614	8,164	7.5%
663547 - WASTE SLUDGE TRANSPORT	31,347	13,025	31,800	31,560	(240)	-0.8%
663551 - LAB ANALYSIS	43,863	11,621	40,235	44,202	3,967	9.9%
663561 - COMPUTER LICENSES	87,091	79,322	86,702	85,190	(1,512)	-1.7%
663562 - COMPUTER MAINTAINENCE	179,245	97,175	216,721	223,425	6,704	3.1%
663563 - COMPUTER CONSULTING/OTHER	22,785	536	21,200	21,200	-	0.0%
663572 - GRIT & SCREENS DISPOSAL	64,312	25,745	74,450	74,450	-	0.0%
663573 - GREASE DISPOSAL	24,994	10,567	34,700	34,200	(500)	-1.4%
663574 - DISPOSAL SERVICES	28,317	8,550	39,523	38,960	(563)	-1.4%
6635801 - EMPLOYEE HEALTH SERVICES	7,623	8,355	6,000	10,000	4,000	66.7%
663581 - UTILITY BILLING PRINTING	72,872	50,148	78,721	79,504	783	1.0%
663582 - PAYMENT PROCESSING	143,603	63,215	139,300	142,000	2,700	1.9%
663583 - RECEIVABLE COLLECTIONS	6,789	2,787	10,000	9,000	(1,000)	-10.0%
663584 - BANK SERVICE CHARGES	21,608	11,058	20,400	21,600	1,200	5.9%
663585 - TREATMENT CONTRACT SERVIC	388,531	198,464	396,928	396,860	(68)	0.0%
6635851 - WW DEWATERING SERVICES	4,068	2,997	5,438	5,438	-	0.0%
6635852 - WW DEWATERING SRVS CREDIT	(4,068)	(2,997)	(3,400)	(3,400)	-	0.0%
663587 - COURIER SERVICES	21,897	11,003	22,325	22,000	(325)	-1.5%
663588 - EQUIPMENT MAINTENANCE	6,949	2,345	26,370	19,120	(7,250)	-27.5%
663589 - SECURITY SERVICES	75,727	39,605	84,000	84,000	-	0.0%
663592 - RECRUITING SERVICES	1,865	2,252	7,250	7,250	-	0.0%
663594 - DIGSAFE	74,545	29,319	71,000	71,000	-	0.0%
663595 - OUTPLACEMENT SERVICES	-	-	2,000	2,000	-	0.0%
663598 - HR CONSULTANT SERVICES	4,793	350	2,000	2,000	-	0.0%
6635982 - TREE TRIMMING / REMOVAL	-	-	7,000	7,000	-	0.0%
6635984 - LANGUAGE INTERPRETATION	-	-	300	300	-	0.0%
6635985 - VEHICLE FLEET GPS SERVICE	-	-	30,000	30,000	-	0.0%
663599 - MISC OTHER SERVICES	31,923	20,527	46,285	47,760	1,475	3.2%
6636 - TECHNICAL SERVICES	12,081	1,173	20,000	19,400	(600)	-3.0%
Contracted Services Total	4,205,484	1,591,891	4,088,905	4,265,913	177,008	4.3%

Departmental Expense by Category (continued)

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

- Legal- Labor Relations-The costs increased by \$40,000 to cover expected costs related to renegotiating the union contract that expires in 2018 and other labor relations.
- Paving – Minor Repair – This account increased \$76,850 (22.0%). The increase was in the Water fund and was done to bring the budget more in line with prior year activity.
- Engineering Services (6631) – These costs are up \$53,450 (27.9%) for support of non-capital projects at the District.

Treatment Contracted Services (663585) is a significant cost item, totaling \$396,860 in 2018:



South Portland and Falmouth treat the wastewater flows from Cape Elizabeth and Cumberland, respectively. The District is assessed and pays an annual fee to those communities for that service. Portland also pays Westbrook for flows from the Riverside area. Costs for debt service related to the upgrades of the Mill Creek Wastewater Pump Station and related forcemain are reflected under the debt service totals for Cumberland and Falmouth.

Deferred Cost Write-Off:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
66754 - DEFERRED COSTS WRITE OFF	24,486	7,200	14,400	14,400	-	0.0%
Deferred Cost W/O Total	24,486	7,200	14,400	14,400	-	0.0%

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

Departmental Expense by Category (continued)

Heat/Fuel Oil:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
66161 - HEATING OIL	207,997	126,249	181,398	88,401	(92,997)	-51.3%
661621 - PIPELINE DELIVERED PROPAN	76,779	50,627	83,340	140,747	57,407	68.9%
661622 - CONTAINER DELIVERED	45,025	34,879	54,626	60,145	5,519	10.1%
66166 - UNLEADED GAS	15,208	6,972	23,400	23,900	500	2.1%
Heat/Fuel Oil Total	345,009	218,727	342,764	313,193	(29,571)	-8.6%

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

	2017 Assumption		2018 Assumption		% Change	
	Units	Per Unit	Units	Per Unit	Units	Per Unit
Heating Oil:						
Douglass Street	38,000	\$2.04	n/a	n/a	n/a	n/a
Water Treatment/Ozone Plant	35,150	\$2.09	34,332	\$1.85	-2.3%	-11.5%
Westbrook WWTF	7,149	\$2.04	6,700	\$1.85	-6.3%	-9.3%
Cape Elizabeth WWTF	2,969	\$2.04	2,928	\$1.85	-1.4%	-9.3%
Peaks Island WWTF	1,935	\$3.00	1,400	\$2.35	-27.6%	-21.7%
Dana Court WWPS (Westbrook)	995	\$2.04	1,008	\$1.85	1.3%	-9.3%
Water - Throttling Valve Building	950	\$2.04	1,038	\$1.85	9.3%	-9.3%
	87,148	\$2.08	47,406	\$1.86	-45.6%	-10.4%
Natural Gas:						
Portland (East End) WWTF	79,085	\$0.99	80,968	\$1.11	2.4%	12.6%
Douglass Street	0	\$0.00	50,205	\$0.98	0.0%	0.0%
	79,085	\$0.99	131,173	\$1.06	65.9%	7.4%

Insurance:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
6656 - VEHICAL INSURANCE	29,111	15,009	28,980	31,306	2,326	8.0%
66561 - VEHICAL INSURANCE REIMBUR	1,244	26	-	-	-	n/a
6657 - GEN LIABILITY INSURANCE	48,610	24,710	48,340	49,419	1,079	2.2%
66592 - DAMAGES & CLAIMS-GOODWILL	4,389	3,490	4,000	4,000	-	0.0%
66593 - UMBRELLA INSURANCE COVER	8,428	4,392	8,311	8,784	473	5.7%
66594 - PROFESSION/CRIME BONDING	33,324	16,385	33,104	32,769	(335)	-1.0%
66599 - PROPERTY & BOILER INSUR	78,365	39,819	78,471	86,379	7,908	10.1%
Insurance Total	203,471	103,831	201,206	212,657	11,451	5.7%

Insurance costs include premiums paid on coverage for District property as well as small claims paid directly to outside parties. The majority of the increase in the 2018 Budget is related to the increase in insurable value of upgrades to the aeration system at the East End Wastewater Treatment Facility in Portland.

Departmental Expense by Category (continued)

Materials & Supplies:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
6619 - ASSET PURCHASES	206,204	89,075	188,078	202,340	14,262	7.6%
662012 - CRUSHED GRAVEL	766	86	496	550	54	10.9%
662016 - SAND	-	-	3,820	3,820	-	0.0%
662017 - SAND AND SALT	-	-	3,452	3,452	-	0.0%
66202 - TOOLS	58,918	27,053	41,286	40,195	(1,091)	-2.6%
66203 - VENDOR PURCHASED SUPPLIES	515,806	284,607	521,223	531,918	10,695	2.1%
662041 - MATERIALS INVENTORY	343,935	78,003	217,544	208,368	(9,176)	-4.2%
662042 - SUPPLIES INVENTORY	94,892	50,401	72,117	73,745	1,628	2.3%
662042 - TOOL INVENTORY	1,128	1,121	350	1,000	650	185.7%
66204201 - INVENTORY - QPR	1,700	(196)	1,500	2,500	1,000	66.7%
66204202 - INVENTORY - BNKRUN GRAVEL	10,007	7,657	6,865	8,750	1,885	27.5%
66204203 - INVENTORY - CRUSHD GRAVEL	37,374	18,122	22,038	17,000	(5,038)	-22.9%
66204204 - INVENTORY - CRUSHED STONE	2,032	650	682	700	18	2.6%
66204205 - INVENTORY - LOAM	1,989	(308)	2,150	2,250	100	4.7%
662043 - TOOL INVENTORY	103,286	46,566	74,920	82,700	7,780	10.4%
66204301 - INVENTORY - TONER	1,902	2,517	7,040	3,000	(4,040)	-57.4%
66204302 - INVENTORY - PAPER	3,042	1,679	5,025	4,800	(225)	-4.5%
66204303 - INVENTORY-COMPUTER EQUIP	13,986	5,766	20,501	24,951	4,450	21.7%
662044 - METER INVENTORY	4,835	(14,720)	17,115	17,350	235	1.4%
662046 - HYDRANT INVENTORY	60,625	39,455	61,820	67,150	5,330	8.6%
662047 - GARAGE INVENTORY	20,024	9,676	15,278	15,550	272	1.8%
66204701 - INVENTORY - UNLEADED GAS	147,587	66,519	110,580	103,125	(7,455)	-6.7%
66204702 - INVENTORY - DIESEL	64,119	23,574	60,610	45,738	(14,872)	-24.5%
66204703 - INVENTORY - TIRES	19,857	2,060	15,000	15,000	-	0.0%
66205 - CONSUMABLE SUPPLIES	79,797	45,019	95,105	96,693	1,588	1.7%
66206 - COMPUTER RELATED EQUIP	61,706	39,922	70,391	88,642	18,251	25.9%
Materials & Supplies Total	1,855,517	824,304	1,634,986	1,661,287	26,301	1.6%

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 2018 Budget up 1.6% overall with lower vehicle fuel costs offsetting most of other increases.

The assumptions for vehicle fuel were:

Fuel Type	2017 Assumption Units	2017 Assumption Per Unit	2018 Assumption Units	2018 Assumption Per Unit	% Change Units	% Change Per Unit
Diesel	29,000	\$2.09	23,100	\$1.98	-20.3%	-5.3%
Unleaded Gas	57,000	\$1.94	55,000	\$1.88	-3.5%	-3.4%
	86,000		78,100		-9.2%	

Departmental Expense by Category (continued)

Other Expense:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
6641 - BUILDING/REAL PROP RENT	-	6,160	5,600	5,600	-	0.0%
66411 - INTERNAL RENTAL CHARGES	48,600	24,300	48,600	48,600	-	0.0%
6642 - EQUIPMENT RENT	9,516	2,973	13,537	19,200	5,663	41.8%
66601 - PUBLIC RELATIONS	7,250	2,515	8,150	9,400	1,250	15.3%
66609 - OTHER ADVERTISING	40,220	3,741	25,876	13,275	(12,601)	-48.7%
6670 - BAD DEBT EXPENSE	11,171	19,200	38,400	32,400	(6,000)	-15.6%
667511 - TRAINING & CONFERNCES	450	2,500	-	-	-	n/a
6675111 - INSTATE TRAINING/CONF	59,384	43,764	92,281	94,310	2,029	2.2%
6675112 - OUT OF STATE TRAINING/CON	5,972	17,669	51,950	48,000	(3,950)	-7.6%
6675121 - IN STATE CONFERENCES	4,488	413	-	-	-	n/a
6675122 - OUT-OF-STATE CONFERENCES	29,286	2,485	-	3,500	3,500	n/a
667513 - DUES	81,632	24,148	79,372	90,277	10,905	13.7%
667514 - PROFESSIONAL LICENSES	12,128	2,970	12,526	16,475	3,949	31.5%
667515 - PERIODICAL SUBSCRIPTIONS	5,525	3,677	7,131	7,120	(11)	-0.2%
667516 - PERMITS	27,418	7,302	29,781	29,281	(500)	-1.7%
667517 - PLANT OPER LICENSE FEES	-	-	75	75	-	0.0%
667518 - REGULATORY REQUIRED FEES	10,725	-	14,000	14,000	-	0.0%
667521 - POSTAGE - THIRD PARTY	196,888	132,589	210,553	217,849	7,296	3.5%
667522 - POSTAGE - INTERNAL	15,450	6,408	17,235	16,775	(460)	-2.7%
667523 - POSTAGE - EXPRESS DELIVER	3,382	701	2,050	2,600	550	26.8%
667531 - PRINTING COSTS	61,309	20,862	65,976	63,526	(2,450)	-3.7%
667533 - FORMS STOCK	675	730	1,300	1,300	-	0.0%
667552 - SAFETY TRAINING	6,050	295	4,900	5,000	100	2.0%
667553 - DOT SUBSTANCE ABUSE	1,248	472	2,000	2,000	-	0.0%
667554 - EPA / OSHA COMPLIANCE	2,741	-	3,408	4,000	592	17.4%
667555 - SAFETY EXPENSES	9,391	7,100	22,745	32,645	9,900	43.5%
667556 - FREIGHT CHARGES (STOCK)	7,034	(551)	6,500	8,000	1,500	23.1%
667561 - WATERSHED GRANTS/SUPPORT	84,139	44,810	38,550	44,050	5,500	14.3%
6675611 - GRANTS - PASS-THROUGH	4,447	1,300	-	-	-	n/a
667581 - ANNUAL LAND CONTRIB CAPE	2,500	2,500	2,500	2,500	-	0.0%
667591 - UNIFORMS	1,988	1,017	2,000	2,000	-	0.0%
667592 - FOOD SUPPLIES	3,402	3,637	5,795	8,335	2,540	43.8%
667598 - GEN MANAGER CONTINGENCY	25,487	14,134	55,000	45,000	(10,000)	-18.2%
6675981 - GEN MNG - TRUSTEES	8,430	8,646	11,450	10,950	(500)	-4.4%
6675982 - GEN MNG - COMMUNITY	23,406	(2,597)	24,615	25,115	500	2.0%
667599 - OTHER MISCELLANEOUS	20,601	12,100	2,100	2,100	-	0.0%
6706 - AMORT OF U P ACQ ADJUSTS	17,000	8,500	17,000	17,000	-	0.0%
6676 - EXPENSE OFFSET	(210,747)	(107,237)	(215,700)	(215,100)	600	-0.3%
Other Expense Total	638,586	319,233	707,256	727,158	19,902	2.8%

Other expenses include postage (\$237,224), training and conferences (\$142,310) and dues (\$90,277). The Expense Offset (6676) contains expenses transferred to other departments or capital projects.

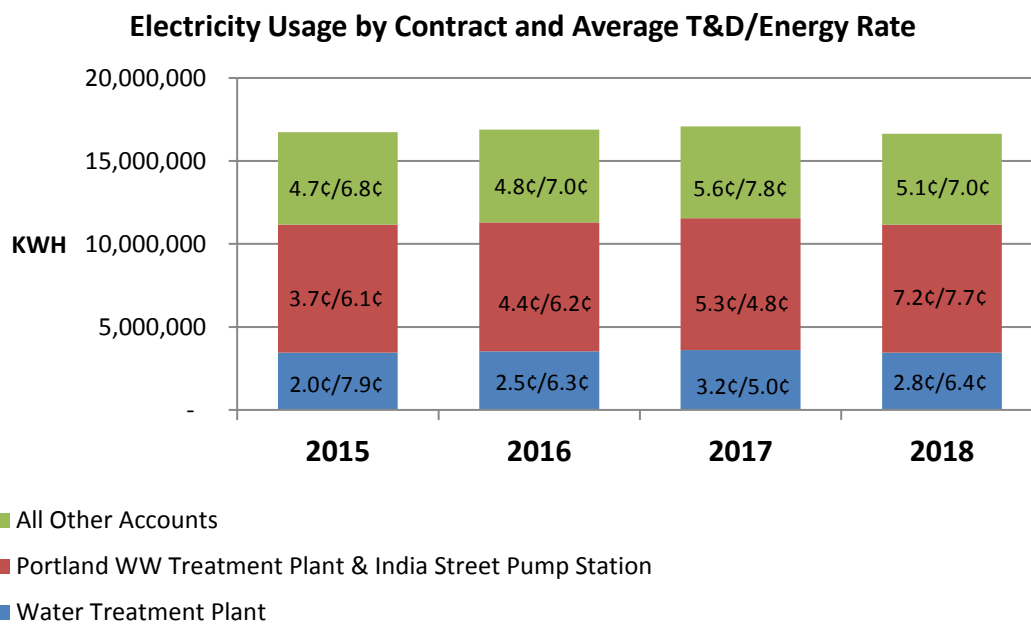
Departmental Expense by Category (continued)

Purchased Power:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
66151 - POWER - LARGE ENERGY	620,985	265,318	557,116	601,772	44,656	8.0%
66152 - POWER - LARGE T&D	446,977	248,689	534,336	466,339	(67,997)	-12.7%
66153 - POWER - MEDIUM ENERGY	313,993	215,135	368,770	326,105	(42,665)	-11.6%
66154 - POWER - MEDIUM T&D	214,171	128,335	244,628	221,297	(23,331)	-9.5%
66155 - POWER - SMALL ENERGY	62,980	38,948	61,118	54,538	(6,580)	-10.8%
66156 - POWER - SMALL T&D	58,957	38,222	65,588	64,001	(1,587)	-2.4%
66157 - POWER - OTHER CHARGES	24,576	42,027	174,095	118,176	(55,919)	-32.1%
66158 - LOAD RESPONSE	(14,263)	(1,384)	(14,000)	(39,335)	(25,335)	181.0%
66159 - POWER - CAPACITY	-	-	-	122,200	122,200	n/a
Purchased Power Total	1,728,376	975,290	1,991,651	1,935,093	(56,558)	-2.8%

Electricity is delivered through the Central Maine Power transmission & distribution (T&D) system. The average 2018 rate per kwh ranges from \$0.044 to \$0.083.

The District purchases its electricity from Constellation Energy through an energy aggregation group - Maine Power Option. Energy contracts for small and medium accounts have been signed through October 2018. The contract for the Water Treatment Plant has been signed through November 2019 and the contracts for Wastewater Treatment Plant and India Street Pump Station are in effect through October 2019. The contracts for these three facilities have different prices for on and off peak usage, and fixed rates are lower in March – November than they are in the winter months. The chart below shows the rates for these accounts as well as the average rates for the remaining 101 small and medium sized accounts.



Departmental Expense by Category (continued)

Regulatory/Taxes:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
670821 - STANDISH REAL ESTATE TAX	42,595	22,173	42,900	46,350	3,450	8.0%
670822 - OTHER R/E TAX(NON-STANDI)	7,847	4,877	7,400	7,750	350	4.7%
670823 - PUC ASSESSMENT	75,015	77,297	80,000	78,700	(1,300)	-1.6%
670824 - ME DRINKING WTR PROGRAM	68,700	-	68,665	68,665	-	0.0%
670825 - PUC PUBLIC ADVOCATE	11,118	-	19,050	15,000	(4,050)	-21.3%
Regulatory/Taxes Total	205,275	104,347	218,015	216,465	(1,550)	-0.7%

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 utility's revenues and time spent on matters related to each industry sector.

Telephone/Other Utilities:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
66101 - WATER	112,486	49,710	131,452	142,081	10,629	8.1%
66102 - WASTEWATER	23,518	14,454	23,500	24,588	1,088	4.6%
66103 - STORMWATER CHARGES	30,032	14,220	30,801	30,801	-	0.0%
66111 - TELEPHONE LINES	27,517	13,454	26,303	29,185	2,882	11.0%
66112 - DATA LINES	101,012	46,488	96,968	104,003	7,035	7.3%
66113 - CELLULAR PHONES	40,106	14,871	38,770	45,763	6,993	18.0%
66114 - PAGERS	2,429	1,083	488	583	95	19.5%
Tele/Other Utilities Total	337,100	154,280	348,282	377,004	28,722	8.2%

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

Transportation:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
66501 - TRANSPORTATION - INTERNAL	596,568	275,782	704,428	629,703	(74,725)	-10.6%
665019 - TRANS INTERNAL INACTIVE	444,195	247,236	413,833	406,672	(7,161)	-1.7%
66502 - TRANSPORTATION - EXTERNAL	42,271	18,343	70,507	75,800	5,293	7.5%
66503 - MILEAGE REIMBURSEMENT	18,950	9,420	21,659	20,958	(701)	-3.2%
Transportation Total	1,101,984	550,781	1,210,427	1,133,133	(77,294)	-6.4%

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

Water Services

Hydrant Flushing



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

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

	2016 Actual	2017 Projected	2018 Goal
% of System Flushed	32%	33%	33%

PWD Flushing Program Overview

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

Water Services – Purpose Statement

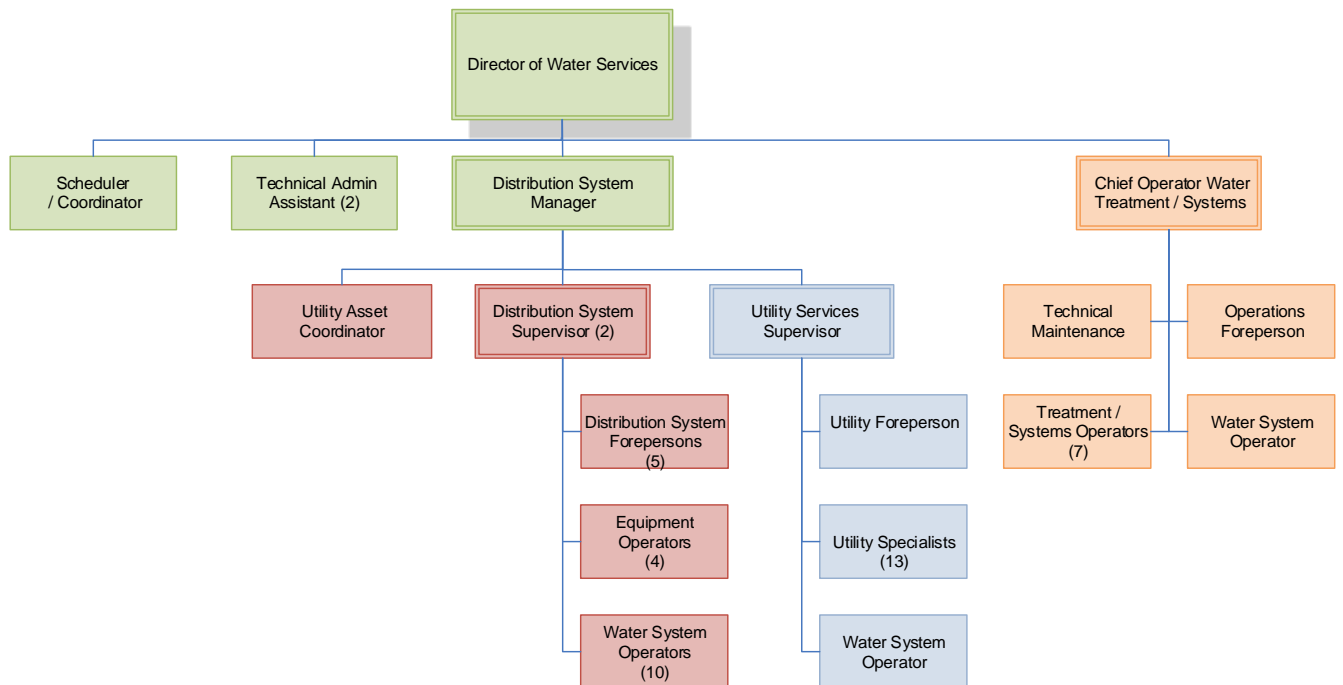
To operate and maintain water system infrastructure including the treatment, water storage and distribution systems.

Core Services

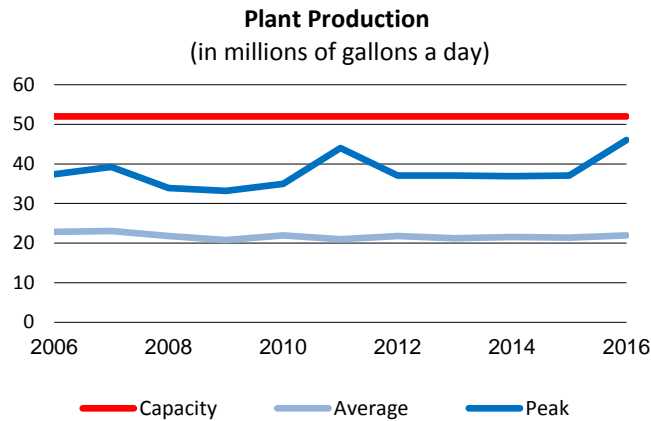
Water Operations is responsible for operating and maintaining the Sebago Lake and Steep Falls Well treatment and water distribution systems by providing the following services:

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

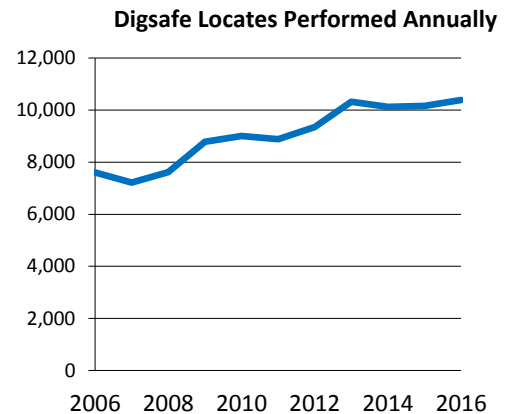
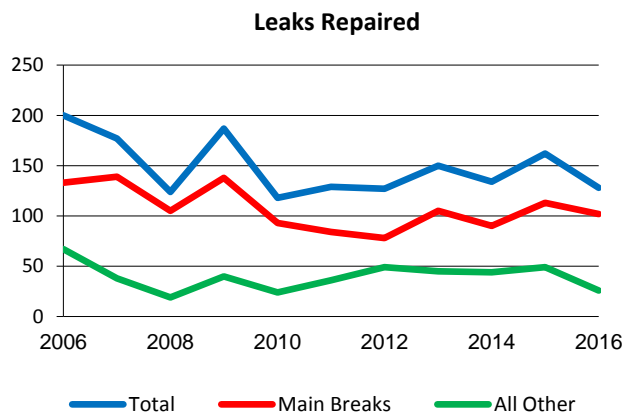
Water Operations has a five-person group (Administration Group- A1; **green** in organization chart) that directs, oversees and provides administrative support.



Key Statistics



Water Supply	Surface – 99%
	Groundwater -1%
Water Treatment	Ozone, Ultraviolet, Chloramination, Corrosion Control, Fluoridation
Water Mains	994 miles
Valves	11,671
Hydrants	5,079
Service Lines	54,370
Water Storage	10 (+2 non-active)
Booster Stations	5
Backflow Devices	4,300

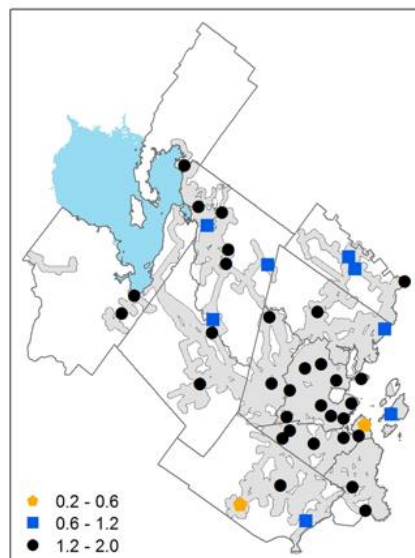


- Plant Production reflects the long-term trend of declining water consumption.
- Leaks repaired each year vary by number/severity of leaks and is a significant budgetary variable.
- Digsafe locates includes marking of water and wastewater infrastructure for others who are working near our assets.

Performance Benchmarks

	2016 Actual	2017 Projected	2018 Goal
Corporate Goal – Public Health			
Compliance of Water Regulations	100%	100%	100%
95% of Distribution System Chlorine Residuals	0.4 mg/l	0.5 mg/l	> 0.5 mg/l
Corporate Goal – Public Safety			
Meeting with Municipal Fire Chiefs	2	2	2
Fire Service Outage Index	2.6	4.5	3
Corporate Goal – Reliability			
Water Outage Index	9.0	< 20	< 20
Leaks per 100 mile of main	10.3	< 10	< 10
Transmission valves exercised	398	398	398
Distribution valves exercised	125	150	150
Customer Appointments On-time	100%	100%	100%
Corporate Goal – Affordability			
Water Facility Maintenance Ratio	71% / 29%	75% / 25%	75% / 25%
Department Cost / million gal	1024	1066	1058
Treatment Cost / million gal	288	310	303
Unaccounted for Water %	14.2%	14%	14%
Corporate Goal – Employees and Work Environment			
Employee Training Hours	88	80	80

**Distribution
System
Chlorine
Residuals**



Past Accomplishments

Water Field

- There were a number of employee suggestions that were acted upon during 2017
 - purchased an additional portable data logger to monitor water pressure at hydrants
 - purchased a trailer to haul a future mini-excavator
 - setup dual computer monitors for certain positions
- Since 2009, staff have recommitted to managing the transmission right-of-ways. Currently, all 21 miles north of New Portland Road in Gorham are clear. Additionally, areas cleared in previous years were mowed or bush hogged to ensure the previous investments in clearing were properly maintained.



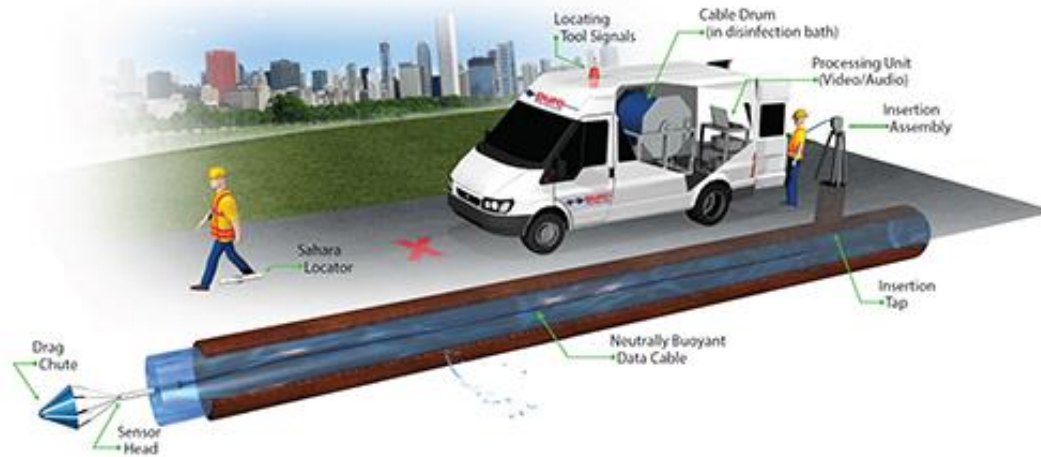
- Completed our tenth year of the Water System Operator apprentice program to expose new employees to all water departments. In the past year, one of the program's participants was promoted to Utility Specialist Supervisor and several others accepted positions in wastewater and engineering services –facilities departments.

- Insertion valves are installed on live water mains to isolate an area and minimize interruptions to the customers. They have become useful tool to support water main replacement projects, especially in highly developed/commercial areas.



Past Accomplishments (continued)

- Completed Condition assessments at three key locations using the Sahara technology from Pure Technologies. Nearly 26,000 linear feet of transmission main was inspected, while the main remained in service, with little to no service disruptions. Initial video and reports indicate all sections are free of debris, tuberculation, and leaks.
 - 30" pipeline to support the Wards Hill Pump Station project
 - 16" main on Winn Rd was inspected to ensure no obstructions were present
 - 16" main on Cummings Rd following a recent pipe failure



- Purchased truck mounted vacuum equipment to make minor infrastructure repairs. Vacuum excavation technology uses pressurized water and suction to excavate a given area. This reduces road impacts, traffic issues, and reduces the size of the excavation.



- Purchased a specialized truck to help facilitate the large meter-testing program and replacement of faulty large meters. It has a small vacuor for cleaning the meter pits for entry, hydraulic tools for removal of the meter, and a crane for lifting the meters. This eliminates assistance from other departments and the need for multiple vehicles.



Past Accomplishments (continued)

Water Plant

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



- Completed the replacement of SLWTF Standby Generator #2 Cooling Tower core. Both cooling towers are now rebuilt, and in excellent condition
- Successfully limited SLWTF electrical power demand to a minimum (<100kW) during ISO-NE's peak annual demand hour, which sets Forward Capacity charges beginning June 2018.

- Completed rehabilitation of Raw Water Pump #2 and it's 250 h.p. motor
- Completed the replacement of both Standish Pump VFDs, upgrading both to 75 h.p. units.



2018 Projects and Initiatives

Corporate Goal – Public Health

- Corporate Initiative
 - Continue to improve the communication of water system incidents with customers using Cumberland County Emergency Management Agency's Code Red, The Health Alert Network (HAN), and the District's Critical Customers Contact List.
 - Continuously improve the water quality in the Distribution System, using guidelines and action plans developed through the AWWA Partnership for Safe Water for Distribution Systems
- Departmental Initiatives
 - Continue to meet 100% of all Primary and Secondary Surface Water Treatment Rule.
 - Program SCADA control strategy for the use of hypochlorite for emergency 4-log virus disinfection in the event of an ozone system failure.

Corporate Goal – Public Safety

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

Corporate Goal – Reliability

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



2018 Projects and Initiatives (continued)

Corporate Goal – Reliability (continued):

- Departmental Initiatives
 - Continue condition assessment of transmission mains to help prioritize investments and determine potential areas of concern.
 - Extend Right-of-Way Maintenance Program into the more developed areas; initiate tracking of current conditions and make plans to repair significant deficiencies.
 - Continue to sample and test soils during water main breaks for corrosivity as a decision making tool for future water main replacement projects. Review current data with pipeline experts to better understand corrosive soils

- Continue to replace 1-2 transmission valves each year



- Upgrade of electrical service at Mackworth Island Chlorine Booster station
- Purchase spare electrical breakers for SLWTF

- Develop long-term maintenance plan for Storage Facilities to meet AWWA and Partnership for Safe Water standards to insure cost effective reliability, viability, and water quality.



2018 Projects and Initiatives (continued)

Corporate Goal – Affordability

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



- Replace one backhoe with a small excavator to improve efficiency on certain jobs (employee suggestion)
- Departmental Initiatives
 - Improve large meter testing program to ensure accuracy of meters (employee suggestion)

Corporate Goal – Employees and Work Environment

- Corporate Initiatives
 - Maintain an average of 80 hours of training per employee
 - Active staff participation in safety initiatives, such as creating lock-out tag-out procedures and fall protection.
- Departmental Initiatives
 - Hire an additional Utility Specialist Foreperson in Utility Services to help manage training, address daily customer issues, and provide assistance to complete the work load (employee suggestion)
 - Improve the onboarding process for new employees. Update the initial training process and set benchmarks for 6 month and 1 year intervals.



Financial Overview

The Water Services Budget for 2018 has increased 2.2% or \$183,205. The majority of the increase is for wages, benefits, and the addition of a full-time employee in Utility Services. In total, these account for \$118,260 or 65% of the increase. A \$76,850 increase, which is roughly the other 35%, in contracted paving will more closely match the budget with past year's expenditures.

The A1 - Water Administration area increased 2.5%, with labor and benefits accounting for 100% of the \$12,909 increase.

A2 – At \$50,847, Water Transmission & Distribution is increasing by 1.3%. Personnel related expenses are increasing by \$36,896 and are a result of salary increases and increased employee benefit costs. No new staffing changes are proposed for A2 in 2017. Contracted services represent an increase of \$89,446 or 7.7%. Paving expenses, repairs, maintenance, and permits are all expected to increase in 2018. The increase is reflective of the additional operational support required to support road projects and development within the communities.

A3 – Treatment area 2018 budget remains unchanged from 2017 budget number. With 3 years of experience now with the new ozone control system, the SLWTF has decreased the level of effort required by engineering services from PAI, which saved \$11,550. One area of significant cost savings is projected to be the cost of Hydrofluorosilicic Acid (fluoride), which should save about \$14,524. The savings in fluoride cost, however, will be somewhat offset by an expected rise in the cost of sodium hypochlorite, requiring a budget increase of \$11,672. Continued efforts towards energy cost savings, including time of use efforts, and forward capacity savings should continue to pay dividends. A projected 5% savings in electricity cost is expected to save \$21,082 in 2018. A decreased cost in heating oil should continue to benefit the SLWTF, with an expected \$10,000 savings projected because of a lower price per unit. These savings will help to offset an expected 3.7% (\$25,250) increase in wages and benefits, helping to maintain a flat overall A3 budget.

A6 – The Utility Services 2018 budget is increasing by \$118,554, or 8.2%. Wages (\$87,108) and benefits (\$25,379) are increasing due to contractual obligations and with the addition of a utility specialist foreperson position. The added position will also require equipment and tools.

Water Services: Total**Financial Summary:**

Column1	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
A1 - Water Administration	\$481,896	\$251,439	\$510,694	\$523,603	\$12,909	2.5%
A2 - Wtr Transmission/Distrib	3,990,724	1,673,027	3,908,548	3,959,395	50,847	1.3%
A3 - Water Treatment	2,317,921	1,180,455	2,422,917	2,423,812	895	0.0%
A6 - Water Utility Services	1,447,824	713,705	1,438,665	1,557,219	118,554	8.2%
Grand Total	8,238,365	3,818,626	8,280,824	8,464,029	183,205	2.2%
Expense Type:						
Salaries & Wages	\$2,925,960	\$1,469,193	\$3,024,812	\$3,132,853	\$108,041	3.6%
Employee Benefits	1,336,432	714,638	1,458,952	1,469,171	10,219	0.7%
Chemicals	386,791	172,450	395,214	394,497	-717	-0.2%
Contracted Services	1,638,197	484,021	1,443,800	1,521,971	78,171	5.4%
Heat/Fuel Oil	107,625	74,875	88,982	80,424	-8,558	-9.6%
Insurance	26,329	13,078	26,387	26,156	-231	-0.9%
Materials & Supplies	652,867	316,077	546,307	563,252	16,945	3.1%
Other Expense	19,729	25,679	46,069	69,558	23,489	51.0%
Purchased Power	386,506	177,045	423,001	401,919	-21,082	-5.0%
Tele/Other Utilities	87,027	32,948	84,013	97,446	13,433	16.0%
Transportation	670,902	338,622	743,287	706,782	-36,505	-4.9%
Grand Total	8,238,365	3,818,626	8,280,824	8,464,029	183,205	2.2%
Headcount:						
Full Time	53	53	53	54	1	1.9%
Part Time	0	0	0	0	0	n/a
Total	53	53	53	54	1	1.9%

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$539,670	\$254,530	\$568,454	\$586,251	\$17,797	3.1%
660121 - WAGES/REGULAR UNION	1,922,201	981,484	1,991,887	2,030,286	38,399	1.9%
660122 - WAGES/OVERTIME UNION	282,242	137,182	246,239	292,948	46,709	19.0%
660123 - WAGES/DOUBLETIME UNION	30,235	13,532	28,287	33,758	5,471	19.3%
660124 - WAGES/STANDBY TIME UNION	99,099	55,265	94,292	100,092	5,800	6.2%
660131 - WAGES - REGULAR - TEMPS	35,805	27,157	56,842	49,518	(7,324)	-12.9%
660132 - WAGES - OVERTIME- TEMPS	428	43	-	-	-	n/a
660136 - CONTRACTED - TEMP	7,454	-	38,811	40,000	1,189	3.1%
66014 - VACATION ACCRUAL	8,826	-	-	-	-	-
Salaries & Wages Total	2,925,960	1,469,193	3,024,812	3,132,853	108,041	3.6%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	218,731	110,953	228,425	236,604	8,179	3.6%
660405 - SAFETY/WHY PROGRAM ITEMS	12,723	3,621	10,745	12,860	2,115	19.7%
660411 - MEALS ALLOWANCE	8,170	4,480	7,081	8,010	929	13.1%
660413 - PWD TRAINING PROGRAM	-	700	-	-	-	n/a
660418 - STIPENDS	5,800	5,900	5,500	5,700	200	3.6%
660419 - EMPLOYEE BENEFITS-MISC OTH	7,614	2,973	-	8,930	8,930	n/a
660491 - EE BENEFITS-REG/SAL	1,083,394	586,011	1,207,201	1,197,067	(10,134)	-0.8%
Employee Benefits Total	1,336,432	714,638	1,458,952	1,469,171	10,219	0.7%
Chemicals						
66181 - AMMONIA	29,705	12,331	26,715	24,168	(2,547)	-9.5%
66182 - CAUSTIC SODA	74,617	34,122	88,513	91,905	3,392	3.8%
66183 - FLUORINE COMPOUND	56,279	22,787	53,081	38,557	(14,524)	-27.4%
66184 - ZINC ORTHOPHOSPHATE	78,344	33,460	75,093	71,461	(3,632)	-4.8%
66185 - SODIUM HYPOCHLORITE	92,196	47,611	98,519	110,191	11,672	11.8%
661851 - SODIUM HYPO - ACCRUAL	-	(6,466)	-	-	-	n/a
661892 - LIQUID OXYGEN (LOX)	60,011	30,441	53,293	58,215	4,922	9.2%
661821 - CAUSTIC SODA - ACCRUAL	(4,361)	(1,836)	-	-	-	n/a
Chemicals Total	386,791	172,450	395,214	394,497	(717)	-0.2%
Contracted Services						
6631 - ENGINEERING SERVICES	23,439	13,145	88,850	112,300	23,450	26.4%
66352 - CONSTRUCTION SERVICES	3,842	386	4,438	4,500	62	1.4%
663521 - TRAFFIC CONTROL	57,702	21,928	54,079	59,500	5,421	10.0%
6635221 - PAVING - MINOR REPAIR	504,802	141,637	349,150	426,000	76,850	22.0%
663523 - SIDEWALK	17,986	2,944	18,653	18,500	(153)	-0.8%
663524 - STREET OPENING	70,156	20,190	63,645	60,680	(2,965)	-4.7%
663525 - CONTRACTOR CONSTRUCTION	756,473	146,427	583,486	558,000	(25,486)	-4.4%
663527 - EMERGENCY RESPONSE- FEMA	-	-	360	360	-	0.0%
66353 - REPAIR SERVICES	14,567	22,069	33,500	31,500	(2,000)	-6.0%
66354 - MAINTENANCE SERVICES	101,897	63,380	144,548	151,249	6,701	4.6%
663542 - LARGE METER TESTING	11,219	-	12,500	12,500	-	0.0%
663546 - MAINTENANCE - SNOW REMOVL	35,025	27,263	32,215	36,219	4,004	12.4%
663561 - COMPUTER LICENSES	16,911	16,986	17,288	17,163	(125)	-0.7%
663574 - DISPOSAL SERVICES	7,584	1,042	4,753	4,690	(63)	-1.3%
663587 - COURIER SERVICES	2,188	1,100	2,215	2,190	(25)	-1.1%
663588 - EQUIPMENT MAINTENANCE	6,949	2,345	19,620	12,120	(7,500)	-38.2%
663594 - DIGSAFE	4,000	2,000	-	-	-	n/a
6635982 - TREE TRIMMING / REMOVAL	-	-	7,000	7,000	-	0.0%
663599 - MISC OTHER SERVICES	1,337	1,179	7,500	7,500	-	0.0%
663526 - INSPECTION SERVICES	2,120	-	-	-	-	-
Contracted Services Total	1,638,197	484,021	1,443,800	1,521,971	78,171	5.4%

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Heat/Fuel Oil						
66161 - HEATING OIL	\$95,104	\$62,539	\$75,402	\$65,434	(\$9,968)	-13.2%
661622 - CONTAINER DELIVERED	12,521	12,266	13,580	14,990	1,410	10.4%
66166 - UNLEADED GAS	-	70	-	-	-	n/a
Heat/Fuel Oil Total	107,625	74,875	88,982	80,424	(8,558)	-9.6%
Insurance						
66599 - PROPERTY & BOILER INSUR	26,329	13,078	26,387	26,156	(231)	-0.9%
Insurance Total	26,329	13,078	26,387	26,156	(231)	-0.9%
Materials & Supplies						
6619 - ASSET PURCHASES	12,986	19,497	18,328	31,590	13,262	72.4%
662012 - CRUSHED GRAVEL	766	86	496	550	54	10.9%
662014 - CRUSHED STONE	69	-	-	-	-	-
662015 - LOAM	73	-	-	-	-	-
662016 - SAND	-	-	3,820	3,820	-	0.0%
662017 - SAND AND SALT	-	-	3,452	3,452	-	0.0%
66202 - TOOLS	47,354	21,446	23,386	20,395	(2,991)	-12.8%
66203 - VENDOR PURCHASED SUPPLIES	151,157	44,711	107,123	110,518	3,395	3.2%
662041 - MATERIALS INVENTORY	157,165	76,540	174,119	164,743	(9,376)	-5.4%
662042 - SUPPLIES INVENTORY	49,941	24,811	21,367	22,495	1,128	5.3%
66204201 - INVENTORY - QPR	1,700	(196)	1,500	2,500	1,000	66.7%
66204202 - INVENTORY - BNKRUN GRAVEL	10,007	7,657	6,865	8,750	1,885	27.5%
66204203 - INVENTORY - CRUSHD GRAVEL	37,374	18,122	22,038	17,000	(5,038)	-22.9%
66204204 - INVENTORY - CRUSHED STONE	2,032	650	682	700	18	2.6%
66204205 - INVENTORY - LOAM	1,921	(308)	2,150	2,250	100	4.7%
662043 - TOOL INVENTORY	69,632	31,556	47,420	54,100	6,680	14.1%
66204301 - INVENTORY - TONER	-	-	840	-	(840)	-100.0%
66204302 - INVENTORY - PAPER	150	60	-	-	-	n/a
66204303 - INVENTORY-COMPUTER EQUIP	3,418	580	2,537	2,913	376	14.8%
662044 - METER INVENTORY	26,160	21,076	17,115	17,350	235	1.4%
662046 - HYDRANT INVENTORY	60,553	37,185	61,820	67,150	5,330	8.6%
662047 - GARAGE INVENTORY	4,096	1,462	2,628	2,900	272	10.4%
66205 - CONSUMABLE SUPPLIES	10,151	5,795	13,271	12,625	(646)	-4.9%
66206 - COMPUTER RELATED EQUIP	6,072	5,147	15,350	17,451	2,101	13.7%
662018 - BANKRUN GRAVEL	90	200	-	-	-	n/a
Materials & Supplies Total	652,867	316,077	546,307	563,252	16,945	3.1%

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Other Expense						
6641 - BUILDING/REAL PROP RENT	\$0	\$6,160	\$5,600	\$5,600	\$0	0.0%
6642 - EQUIPMENT RENT	3,813	-	7,337	13,000	5,663	77.2%
667511 - TRAINING & CONFERNCES	-	192	-	-	-	n/a
6675111 - INSTATE TRAINING/CONF	21,755	16,610	25,531	27,110	1,579	6.2%
6675112 - OUT OF STATE TRAINING/CON	-	3,764	-	-	-	n/a
6675121 - IN STATE CONFERENCES	575	18	-	-	-	n/a
6675122 - OUT-OF-STATE CONFERENCES	168	318	-	3,500	3,500	n/a
667513 - DUES	1,378	1,000	4,517	4,688	171	3.8%
667514 - PROFESSIONAL LICENSES	2,900	756	4,801	4,345	(456)	-9.5%
667515 - PERIODICAL SUBSCRIPTIONS	-	-	200	200	-	0.0%
667516 - PERMITS	505	425	781	781	-	0.0%
667518 - REGULATORY REQUIRED FEES	399	-	-	-	-	-
667521 - POSTAGE - THIRD PARTY	301	2,189	4,378	4,378	-	0.0%
667522 - POSTAGE - INTERNAL	339	82	100	100	-	0.0%
667523 - POSTAGE - EXPRESS DELIVER	154	-	200	200	-	0.0%
667531 - PRINTING COSTS	7,988	2,950	8,676	8,676	-	0.0%
667552 - SAFETY TRAINING	220	-	-	-	-	-
667554 - EPA / OSHA COMPLIANCE	2,741	-	3,408	4,000	592	17.4%
667555 - SAFETY EXPENSES	639	-	5,220	17,720	12,500	239.5%
667591 - UNIFORMS	192	-	-	-	-	-
667592 - FOOD SUPPLIES	135	255	520	460	(60)	-11.5%
667599 - OTHER MISCELLANEOUS	727	3,560	-	-	-	n/a
6676 - EXPENSE OFFSET	(25,200)	(12,600)	(25,200)	(25,200)	-	0.0%
Other Expense Total	19,729	25,679	46,069	69,558	23,489	51.0%
Purchased Power						
66151 - POWER - LARGE ENERGY	171,364	62,022	178,082	173,594	(4,488)	-2.5%
66152 - POWER - LARGE T&D	103,908	50,807	116,099	100,704	(15,395)	-13.3%
66153 - POWER - MEDIUM ENERGY	40,101	21,902	44,096	40,407	(3,689)	-8.4%
66154 - POWER - MEDIUM T&D	29,248	15,475	29,434	30,648	1,214	4.1%
66155 - POWER - SMALL ENERGY	15,999	9,433	15,446	13,937	(1,509)	-9.8%
66156 - POWER - SMALL T&D	15,335	9,592	17,203	16,950	(253)	-1.5%
66157 - POWER - OTHER CHARGES	18,317	8,692	29,641	36,964	7,323	24.7%
66158 - LOAD RESPONSE	(7,766)	(878)	(7,000)	(18,785)	(11,785)	168.4%
66159 - POWER - CAPACITY	-	-	-	7,500	7,500	n/a
Purchased Power Total	386,506	177,045	423,001	401,919	(21,082)	-5.0%
Tele/Other Utilities						
66101 - WATER	3,891	1,443	3,650	3,891	241	6.6%
66102 - WASTEWATER	23,518	5,994	23,500	24,588	1,088	4.6%
66103 - STORMWATER CHARGES	(388)	(864)	-	-	-	n/a
66111 - TELEPHONE LINES	2,103	1,702	2,246	4,620	2,374	105.7%
66112 - DATA LINES	44,259	19,700	40,854	47,100	6,246	15.3%
66113 - CELLULAR PHONES	12,488	4,582	13,615	17,100	3,485	25.6%
66114 - PAGERS	1,156	391	148	147	(1)	-0.7%
Tele/Other Utilities Total	87,027	32,948	84,013	97,446	13,433	16.0%
Transportation						
66501 - TRANSPORTATION - INTERNAL	386,959	179,479	417,058	399,841	(17,217)	-4.1%
665019 - TRANS INTERNAL INACTIVE	253,727	142,972	271,617	246,502	(25,115)	-9.2%
66502 - TRANSPORTATION - EXTERNAL	25,763	13,437	51,607	56,900	5,293	10.3%
66503 - MILEAGE REIMBURSEMENT	4,453	2,730	3,005	3,539	534	17.8%
66504 - MTA TRANS-PASS TOLL FEES	-	4	-	-	-	n/a
Transportation Total	670,902	338,622	743,287	706,782	(36,505)	-4.9%
Grand Total	8,238,365	3,818,626	8,280,824	8,464,029	183,205	2.2%

Water Services: Water Administration (A1)

Financial Summary:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$313,306	\$157,597	\$320,957	\$331,914	\$10,957	3.4%
Employee Benefits	156,267	86,699	176,013	178,085	2,072	1.2%
Contracted Services	0	20	0	0	0	n/a
Materials & Supplies	1,439	701	1,588	1,964	376	23.7%
Other Expense	7,166	4,954	8,701	8,093	-608	-7.0%
Tele/Other Utilities	2,636	639	2,340	2,340	0	0.0%
Transportation	1,082	829	1,095	1,207	112	10.2%
Grand Total	481,896	251,439	510,694	523,603	12,909	2.5%
Programs:						
98 - Training	18,171	13,240	23,219	22,978	-241	-1.0%
99 - Administration	463,725	238,199	487,475	500,625	13,150	2.7%
Grand Total	481,896	251,439	510,694	523,603	12,909	2.5%
Funds:						
10 - General	100,273	41,847	89,141	97,688	8,547	9.6%
20 - Water General	379,922	209,592	419,849	423,915	4,066	1.0%
50 - Wastewater General	1,701	0	1,704	2,000	296	17.4%
Grand Total	481,896	251,439	510,694	523,603	12,909	2.5%
Headcount:						
Full-Time	5	5	5	5	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	5	5	5	5	0	0.0%

Sebago Lake
Water Treatment
Facility



Water Services: Water Transmission/Distribution (A2)

Financial Summary:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$1,155,462	\$597,247	\$1,238,502	\$1,222,957	-\$15,545	-1.3%
Employee Benefits	516,420	285,978	567,858	546,507	-21,351	-3.8%
Contracted Services	1,442,797	347,185	1,168,684	1,258,130	89,446	7.7%
Materials & Supplies	360,424	175,767	335,652	341,598	5,946	1.8%
Other Expense	18,952	19,202	24,228	35,200	10,972	45.3%
Tele/Other Utilities	10,388	3,307	10,659	12,564	1,905	17.9%
Transportation	486,281	244,341	562,965	542,439	-20,526	-3.6%
Grand Total	3,990,724	1,673,027	3,908,548	3,959,395	50,847	1.3%
Programs:						
1 - Seasonal Mains	114,540	66,538	99,870	118,551	18,681	18.7%
10 - General Distribution	236,692	110,631	232,201	262,025	29,824	12.8%
11 - Mains & Valves Maint	1,287,644	535,222	1,307,234	1,408,894	101,660	7.8%
12 - Services Maintenance	634,640	175,436	641,029	621,309	-19,720	-3.1%
14 - Distribution Flushing	10,109	0	0	0	0	n/a
15 - Digsafe Locates	2,098	353	0	0	0	n/a
17 - Hydrant Maintenance	243,776	150,976	303,421	255,807	-47,614	-15.7%
18 - Water Treatment Maint	296	69	195	0	-195	-100.0%
2 - Meter Reading	4,029	929	27,166	10,442	-16,724	-61.6%
20 - Meter Service	759	462	0	0	0	n/a
4 - Paving (Mains)	470,288	31,968	312,787	313,802	1,015	0.3%
44 - WW Pumping	10,633	777	801	944	143	17.9%
45 - WW Treatment	352	6,219	1,154	0	-1,154	-100.0%
90 - Vehicles	33,753	15,509	28,097	28,752	655	2.3%
91 - Snow Removal	9,400	23,998	33,350	32,455	-895	-2.7%
92 - Bulk Materials Adjustment	25,630	13,392	0	0	0	n/a
98 - Training	98,393	81,308	88,883	98,923	10,040	11.3%
99 - Administration	807,692	459,240	832,360	807,491	-24,869	-3.0%
Grand Total	3,990,724	1,673,027	3,908,548	3,959,395	50,847	1.3%
Funds:						
10 - General	620,580	412,973	593,329	579,307	-14,022	-2.4%
20 - Water General	3,353,652	1,251,505	3,312,951	3,379,144	66,193	2.0%
30 - Water Standish	5,507	1,547	313	0	-313	-100.0%
51 - WW Cape Elizabeth	8,553	0	0	472	472	n/a
57 - WW Portland	352	6,548	1,955	472	-1,483	-75.9%
62 - WW Westbrook	727	0	0	0	0	n/a
64 - WW Joint Westbrook	1,353	454	0	0	0	n/a
Grand Total	3,990,724	1,673,027	3,908,548	3,959,395	50,847	1.3%
Headcount:						
Full-Time	22	22	22	22	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	22	22	22	22	0	0.0%

Water Services: Water Treatment (A3)**Financial Summary:**

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$688,556	\$342,873	\$687,550	\$713,071	\$25,521	3.7%
Employee Benefits	313,003	165,637	335,429	340,548	5,119	1.5%
Chemicals	386,791	172,450	395,214	394,497	-717	-0.2%
Contracted Services	170,873	130,604	250,496	239,221	-11,275	-4.5%
Heat/Fuel Oil	107,625	74,875	88,982	80,424	-8,558	-9.6%
Insurance	26,329	13,078	26,387	26,156	-231	-0.9%
Materials & Supplies	160,907	69,742	129,552	124,387	-5,165	-4.0%
Other Expense	-18,265	-9,359	-8,789	4,336	13,125	-149.3%
Purchased Power	386,506	177,045	423,001	401,919	-21,082	-5.0%
Tele/Other Utilities	60,177	24,408	57,665	64,782	7,117	12.3%
Transportation	35,419	19,102	37,430	34,471	-2,959	-7.9%
Grand Total	2,317,921	1,180,455	2,422,917	2,423,812	895	0.0%
Programs:						
1 - Seasonal Mains	0	2,662	1,287	1,248	-39	-3.0%
11 - Mains & Valves Maint	2,745	651	403	2,002	1,599	396.8%
12 - Services Maintenance	865	154	657	952	295	44.9%
17 - Hydrant Maintenance	5	0	257	0	-257	-100.0%
18 - Water Treatment Maint	122,517	69,643	112,228	118,304	6,076	5.4%
2 - Meter Reading	0	0	194	124	-70	-36.1%
24 - Distribution Operations	286,942	163,330	273,998	280,533	6,535	2.4%
25 - Water Storage Maintenance	20,968	13,377	46,901	39,824	-7,077	-15.1%
34 - Distribution Maintenance	40,232	13,318	40,453	45,622	5,169	12.8%
6 - Water Treatment	1,602,905	814,086	1,703,060	1,693,235	-9,825	-0.6%
94 - Technology Teams	0	578	0	0	0	n/a
98 - Training	39,458	21,617	50,182	42,116	-8,066	-16.1%
99 - Administration	201,284	81,039	193,297	199,852	6,555	3.4%
Grand Total	2,317,921	1,180,455	2,422,917	2,423,812	895	0.0%
Funds:						
10 - General	198,373	80,217	203,072	198,741	-4,331	-2.1%
20 - Water General	2,079,217	1,077,283	2,168,100	2,117,884	-50,216	-2.3%
30 - Water Standish	40,331	22,955	51,745	107,187	55,442	107.1%
Grand Total	2,317,921	1,180,455	2,422,917	2,423,812	895	0.0%
Headcount:						
Full-Time	11	11	11	11	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	11	11	11	11	0	0.0%

Water Services: Water Utility Services (A6)**Financial Summary:**

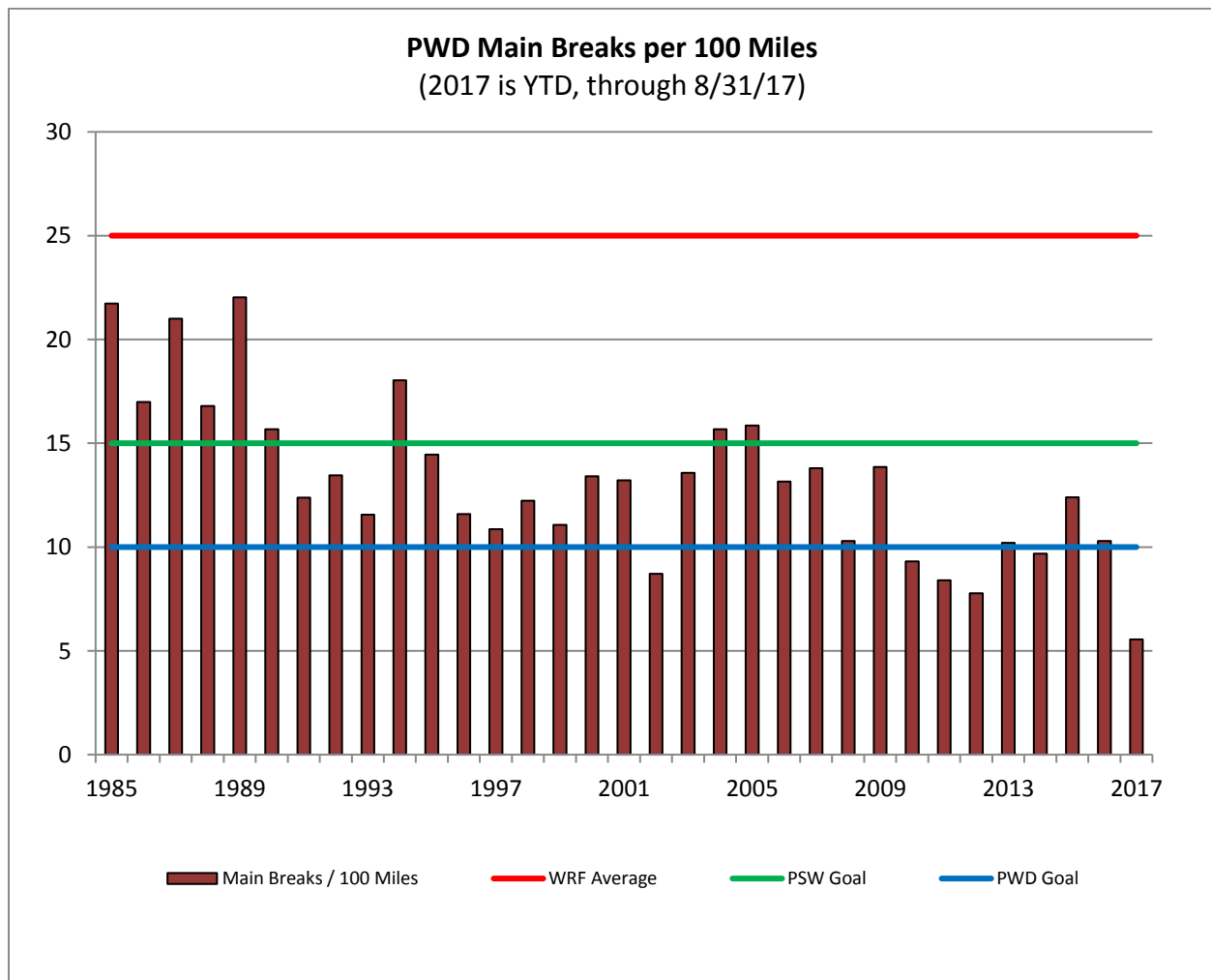
	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$768,636	\$371,476	\$777,803	\$864,911	\$87,108	11.2%
Employee Benefits	350,742	176,324	379,652	404,031	24,379	6.4%
Contracted Services	24,527	6,212	24,620	24,620	0	0.0%
Materials & Supplies	130,097	69,867	79,515	95,303	15,788	19.9%
Other Expense	11,876	10,882	21,929	21,929	0	0.0%
Tele/Other Utilities	13,826	4,594	13,349	17,760	4,411	33.0%
Transportation	148,120	74,350	141,797	128,665	-13,132	-9.3%
Grand Total	1,447,824	713,705	1,438,665	1,557,219	118,554	8.2%
Programs:						
1 - Seasonal Mains	48,714	27,950	48,442	49,969	1,527	3.2%
10 - General Distribution	53,562	26,494	39,481	53,770	14,289	36.2%
11 - Mains & Valves Maint	4,160	7,457	5,588	7,740	2,152	38.5%
12 - Services Maintenance	1,616	1,660	2,429	3,327	898	37.0%
14 - Distribution Flushing	95,937	33,684	98,370	100,042	1,672	1.7%
15 - Digsafe Locates	225,330	107,224	220,290	245,441	25,151	11.4%
16 - Cross Connection	20,656	10,554	25,864	26,477	613	2.4%
17 - Hydrant Maintenance	89,363	73,792	99,676	94,815	-4,861	-4.9%
19 - Winter Hydrant Pump	40,343	10,929	60,097	54,404	-5,693	-9.5%
2 - Meter Reading	101,571	61,600	93,994	96,939	2,945	3.1%
20 - Meter Service	121,668	37,835	152,387	121,265	-31,122	-20.4%
21 - Large Meter Testing	20,657	16,248	29,700	30,838	1,138	3.8%
26 - Submeters	1,244	465	1,528	2,647	1,119	73.2%
3 - Leak Surveys	1,531	4,697	7,383	12,514	5,131	69.5%
31 - Vehicle Cleaning	2,319	1,597	1,533	2,204	671	43.8%
7 - General Investigation	204,577	99,593	181,447	219,325	37,878	20.9%
76 - Collection	14,772	7,494	16,562	20,004	3,442	20.8%
90 - Vehicles	1,062	1,148	1,533	1,563	30	2.0%
94 - Technology Teams	4,966	44	0	502	502	n/a
98 - Training	39,605	40,357	64,985	67,996	3,011	4.6%
99 - Administration	354,171	142,883	287,376	345,437	58,061	20.2%
Grand Total	1,447,824	713,705	1,438,665	1,557,219	118,554	8.2%
Funds:						
10 - General	520,600	240,228	486,656	506,314	19,658	4.0%
20 - Water General	916,064	467,221	940,447	1,042,011	101,564	10.8%
30 - Water Standish	2,121	5,640	4,666	5,579	913	19.6%
50 - Wastewater General	20	0	0	668	668	n/a
51 - WW Cape Elizabeth	680	0	563	559	-4	-0.7%
53 - WW Cumberland	4,813	108	2,018	402	-1,616	-80.1%
55 - WW Windham LF	269	151	1,789	0	-1,789	-100.0%
57 - WW Portland	205	164	229	402	173	75.5%
59 - WW South Portland	361	129	229	402	173	75.5%
61 - WW Gorham	2,598	0	1,762	402	-1,360	-77.2%
62 - WW Westbrook	93	64	306	480	174	56.9%
Grand Total	1,447,824	713,705	1,438,665	1,557,219	118,554	8.2%
Headcount:						
Full-Time	15	15	15	16	1	6.7%
Part-Time	0	0	0	0	0	n/a
Total	15	15	15	16	1	6.7%

Water Services

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

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

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



Outstanding Management and Operations & Contribution to Wastewater Treatment Profession Certificate of Achievement Award

Maine's Department of Environmental Protection presented the District with the 2017 Certificate of Achievement



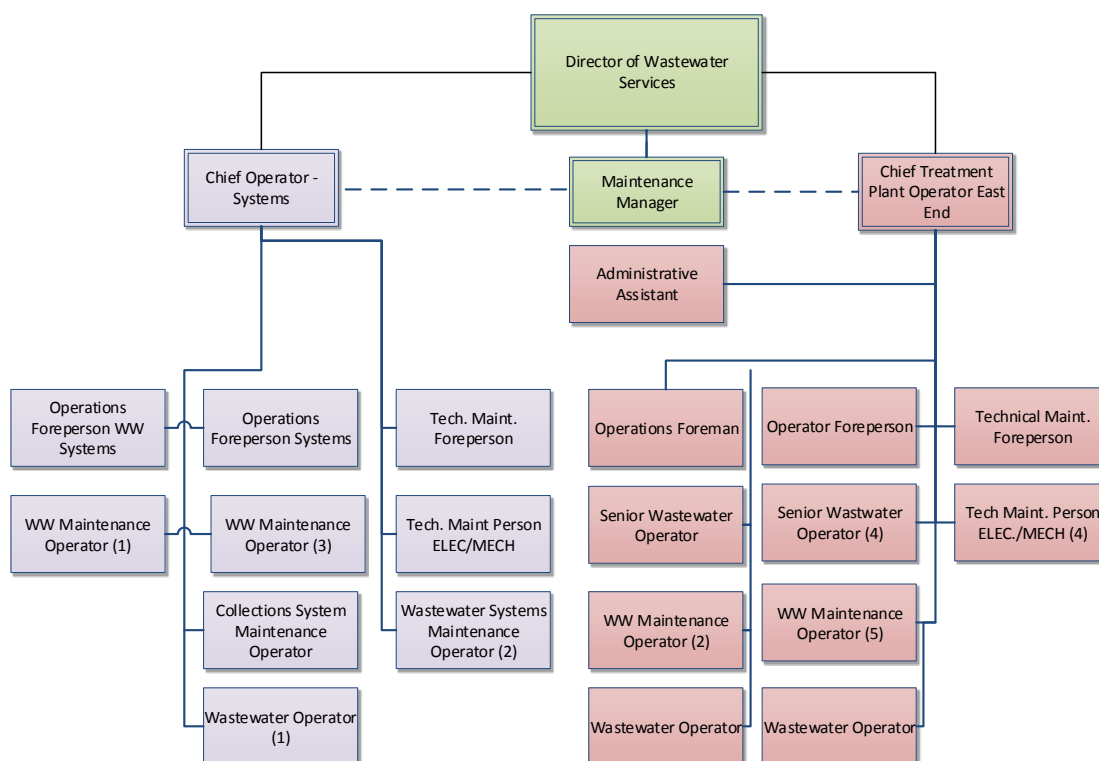
Wastewater Services – Purpose Statement

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

Core Services

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

Administration for the Wastewater Services Group is comprised of the Director of Wastewater Services who oversees and provides administrative support to the operational units (Wastewater Administration – B1; green in organization chart). In 2017, the maintenance manager position was created to further our asset management system. Operation and maintenance staff of 24 are directly responsible for the operation and maintenance of our four treatment plants (Treatment – B3; red in organization chart). Operators from each area are regularly involved in the operation of all four treatment facilities' and several of our pump stations. Wastewater Systems staff of 12 people is responsible for the operation and maintenance of interceptors, force mains, pump stations, collectors, flow monitoring, and combined sewer regulators in with the water operations groups (Systems – L9; purple in organization chart). The operator training program includes regular laboratory training to ensure our operators can perform the required regulatory testing to assist in the monitoring of our wastewater operations.

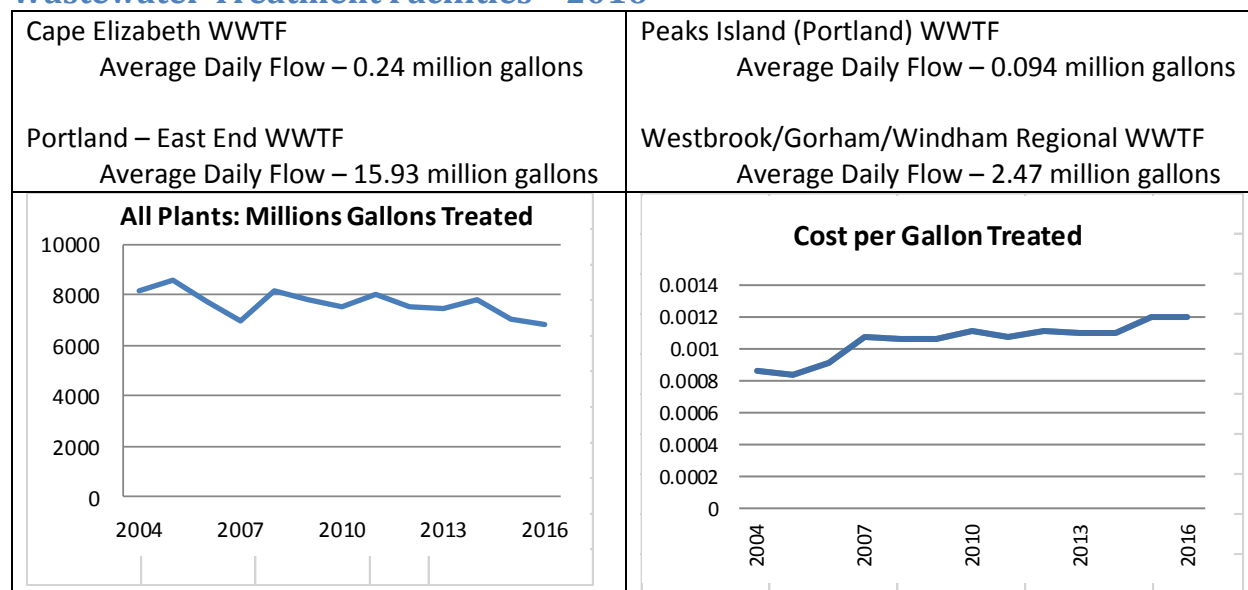


Key Statistics

Wastewater Services Group Facts

- The Wastewater Services Group operates four wastewater treatment plants and provides sewer services to six communities. The East End treatment plant is the largest municipal treatment facility in Maine.
- Our CSO program includes a web-based system that allows for near real-time monitoring and alarming of over 90% of the total overflow sites for PWD and several member municipalities. The majority of these meters were replaced in 2017.
- The East End Treatment plant maximizes flow to the treatment facility during wet weather events as a critical component of the City of Portland's CSO management efforts.
- The Wastewater Operator apprentice program has been operating for six years. This effort has helped address workforce management issues due to retirements. These positions work in each of our treatment plants and the wastewater systems and pumping group. Also they assist the Engineering Services group with the asset management program. Operators participate in a lab immersion effort that provides training and proficiency in many of the routine testing requirements operators are required to complete. Through the combined efforts, we have completed asset inventories at the Cape Elizabeth and Peaks Island treatment plants.

Wastewater Treatment Facilities – 2016



Wastewater Systems Responsibility

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

Performance Benchmarks

	2016 Actual	2017 Projected	2018 Goal
<u>Wastewater Systems</u>			
Corporate Goal - Environment			
Wet wells cleaned	5	15	10
Feet of pipe cleaned	34,509	20,000	>20,000
Feet of pipe televised	47,500	20,000	>30,000
Dry weather overflows	0	0	0
Corporate Goal -Reliability			
Corrective Maintenance tasks	39	50	<200
Corporate Goal -Affordability			
Preventive Maintenance tasks	195	200	200
<u>Treatment Operations</u>			
Corporate Goal - Environment			
Total license excursions	53	15	0
Corporate Goal -Reliability			
Biosolids removed (wet tons)	23,506	23,000	<21,500
% BOD removed	94.5	93	>85
% suspended solids removed	95	93	>85

Past Accomplishments

- Flow monitoring of combined sewer overflow events:
 - PWD continuously monitors over 95% of all combined sewer overflows in Portland, Westbrook, and Cape Elizabeth. This program has assisted in the development of Long Term CSO Control Plans in Portland, Westbrook, and Cape Elizabeth.
 - The CSO Long-Term Control Plan for the Ottawa Road CSO was approved by DEP in 2013. The 5-year work-plan began in 2014 with a focus by the Town of Cape Elizabeth to identify source of residential I/I. The Town of Cape Elizabeth will be completed required storm drainage work in 2015 and 2016. It is anticipated that the removal of residential sources will begin in 2018 while PWD begins the design of an upgrade to the Ottawa Rd. pump station. It is uncertain if the pump station capacity can be increased due to site limitations and downstream sewer capacity.
 - Using data from the flow monitoring system, sources of seawater inflow to the Portland collection system are monitored and any increases are investigated to minimize the inflow of seawater. The Long Wharf Tide Gate was replaced to eliminate excessive inflow from the outlet. The tide gate replacement for India St. and the Northeast Outfall will further support the effort to mitigate seawater inflow. Seawater inflow accounts for approximately 5 - 8% of the annual treatment plant flow in Portland.
 - Construction of the Town of Falmouth's Mill Creek Pump Station and forcemain was completed in 2017. The Mill Creek pump station serves the Town of Cumberland. The service agreement with Falmouth was amended in 2015 to increase the capacity that Cumberland owns in the pump station. This will enable Cumberland to fully utilize its future capacity in the Falmouth Wastewater Treatment Facility.
- New 5 year permits for treatment plants
 - The Cape Elizabeth Wastewater Treatment Facility permit was renewed in late 2016. The permit included a significant reduction in routine monitoring requirements due to the plant's historical performance relative to regulatory standards. Monitoring of effluent nitrogen is required during the warmer months in 2017.
 - The East End Wastewater Treatment Facility permit was renewed in 2017. This effort included a number of stakeholders and the Department of Environmental Protection. The negotiated "nutrient optimization approach" for managing nitrogen will include effluent monitoring, operational efforts to reduce nitrogen (leveraging improvements made during the aeration system upgrade), and participation in the City of Portland's Integrated Planning efforts. The permit included a significant reduction in routine monitoring requirements due to the plant's historical performance relative to regulatory standards.
 - The Westbrook/Gorham Regional Wastewater Treatment Facility permit was renewed in 2017. The permit included a significant reduction in routine monitoring requirements due to the plant's historical performance relative to regulatory standards along with monthly requirements to monitor effluent phosphorus during the summer months.
 - The Peaks Island WWTF effluent permit has been issued as a final draft and is expected to be finalized by the end of 2017.

Past Accomplishments (continued)

- Westbrook/Gorham/Windham Regional Treatment Facility upgrades
 - The dewatering system is being upgraded to include a new screw press. Operational efficiencies and savings due to “drier” sludge produce by the new equipment are expected to yield operational efficiencies and cost savings.
 - An effluent chlorination system monitoring system was installed to continuously monitor the treated effluent. This has eliminated the need for daily readings and staff is no longer required to make weekend visits to the plant.
 - We expect that phosphorus (and possibly nitrogen) limits may be considered in future permit renewals, including the upcoming 2022 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 had generators installed during construction as part of our new infrastructure standards. Bypass connections are also installed to allow the stations to be serviced by a portable pumping unit if needed.
 - Staff completed an assessment of all pump stations in 2014. A summary report has been prepared for each community that PWD services. These findings continue to guide the development and implementation of our long-range capital improvement program.
 - In 2016, treatment plant staff assumed daily operational responsibility for the Northeast Pump Station (located at the foot of the East End treatment plant). Treatment operators already assist with the daily operation of the Spurwink Pump Station in Cape Elizabeth and with the routine management of screenings at Westbrook pump stations.
- Wastewater Services Department changes
 - The Wastewater Operator apprentice program continues to train operators to assist with workforce management as pending retirements in the coming years. Operators from this program have moved into higher-level positions. The addition of laboratory training in 2016 further enhanced the program. As of August 2017, nearly 1/3 of our wastewater operators have been through the program and have subsequently advanced.
 - Changes to job descriptions to enable operators to work in both the treatment and systems areas have increased the knowledge and capabilities of our operators.
 - A detailed series of Standard Operating Procedures and Guidance Manuals was compiled in 2017. This resource will allow additional operators to become more familiar with all of PWD’s treatment plants.
 - With the retirement of one of the Chief Operators in 2017, the position of a Maintenance Manager (Planning and Scheduling) was created. This position will assist Chief Operators and staff in the further refinement of operational scheduling and preventive maintenance efforts.

Past Accomplishments (continued)

- East End Wastewater Treatment Plant
 - The construction of the diffused air system at the East End treatment plant was completed in the summer of 2017. Staff has noted a significant reduction in odors from the aeration system and improved process performance.
 - In 2017, the East End experienced operational difficulties associated with the dewatering system. The dewatering equipment is being refurbished with help from the manufacturer. Improved performance is expected for the last quarter of 2017 and 2018. About a quarter of PWD biosolids are now being composted for beneficial reuse. In 2016, the addition of the Village Green Digester in Brunswick has provided another beneficial use outlet for PWD biosolids.
 - New local limits for BOD and TSS have been in place since 2011. To date there has not been a reduction in loading to the treatment plant, which operates with influent loadings slightly above the design capacity. The local limits will remain in place until the after the aeration system is completed. It is likely that the final uniform BOD and TSS local limits would be near the current screening levels.

2018 Projects and Initiatives

B1 – Administration

- We continue to monitor changing regulations related to phosphorus, nitrogen, and high flow management. With the renewal of permits at the treatment plants, we will monitor efforts that could affect the next permit in 2022.
- Staff will continue to work closely with our municipal partners in the planning and execution of Long Term Control Plans and other efforts to further manage and mitigate peak wet weather flows.
- As part of the Peaks Island sewer expansion, PWD has worked with the City of Portland and MEDEP to identify and remove inflow and infiltration to the sewer in an effort to eliminate the need to operate the plant in emergency bypass mode several times each year. The goal for removal of flow from the system is at least 250 gallons per minute during peak wet weather periods. The City has completed a survey of 80% of the homes and is working to develop a plan to remove roof leaders and sump pumps that have been identified. As development pressure on the island increases, PWD will evaluate the capacity of the Peaks facility and will continue to work with Portland to remove excessive I/I from private systems.
- Through our Wastewater Operator training program and increasingly through trained operators, we continue to work with the AMaP Department to further develop our asset management system. Significant effort is being applied cooperatively between operations and AMaP towards the documentation of new systems during the design and construction phase of projects. The addition of the new Maintenance Manager (Planning and Scheduling) will help to move this effort forward.

2018 Projects and Initiatives (continued)

B3, L9 – Operations

- Treatment Plant Operators continue to focus on effluent compliance including making process control adjustments to the operation of the treatment plant as needed, most recently in efforts to manage effluent nitrogen from the Cape Elizabeth, Peaks Island, and East End WWTFs.
- The operations team continues to focus on implementing safe work practices throughout the workplace. Focus areas include confined space, lock-out tag-out programs, electrical safety, and the regular use of personal protective equipment by staff. The addition of the new Maintenance Manager (Planning and Scheduling) will help to move this effort forward.
- Staff continues to work to manage odors from our treatment facilities. The East End treatment facility did experience an unusually high number of odor complaints in 2016. The bulk of these odors can be attributed to the aeration system upgrade construction project and the failure of an aerator in one of the aeration tanks. Due in large part to the completion of the diffused aeration system, the number of odor complaints in 2017 was dramatically reduced. Additionally, the main odor control system was rebuilt, the control system was updated, and the system was tested to confirm proper airflow was being maintained. As a result of the testing, one large fan was replaced and others were optimized. Construction of an odor control system at the Northeast Pump Station began in 2017 and is expected to be operational in summer of 2018. The system will be very similar to the process that has operated successfully at the India St. Pump Station for nearly 10 years.
- In 2016, wastewater systems acquired a new Vactor 2100 series truck that replaced the 13 year old vactor truck. The addition of this truck will further enable operations crews to maintain wet wells, clean lines, and remove debris from catch basins. A new remote control feature and longer reach with its “snorkel” have already proven useful, allowing operators to access difficult sites in a safe manner more readily. After a brief adjustment period, staff is now very comfortable with the new truck.

Corporate Goal – Reliability

B1 – Administration

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

B3, L9 – Operations

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

2018 Projects and Initiatives (continued)

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

Corporate Goal – Affordability

B1 – Administration

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

B3, L9 – Operations

- Manage departmental budgets with area supervisors that lead to cost savings measures, i.e. improved dewatered solids at the Westbrook/Gorham and East End WWTFs in 2018, station visits, chemical use, etc. Major budget items, including chemicals, power, biosolids, and others are monitored using the WIMS data management system to monitor and control operations and budgets.
- As requested by employees, a dumpster has been installed at the Cape Elizabeth WWTF. This eliminates additional handling of material and transportation to other facilities for disposal.
- Continue to implement process control measures in the operation of wastewater treatment facilities. Operations Plans have been developed for each facility and an on-line computer based Operations Manuals continue to be updated to serve as guidance for the Operations Team.

2018 Projects and Initiatives (continued)

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

Corporate Goal – Environment

B1 – Administration

- Continue to monitor existing performance and developing regulations.

B3, L9 – Operations

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

Corporate Goal – Employees and Work Environment

B1 – Administration

- Promote the District's professional development program of a minimum 80 hours of training each year.
- In 2016, the Wastewater Study Group was created. This monthly session involves operators in hand-on learning designed to prepare operators for certification exams and their daily activities in our treatment plants and systems.
- Several operators received advanced and new Operator Licenses in 2017.

B3, L9 – Operations

- Provide support to employees through annual performance reviews and regular support.
- Following injuries during the opening of manhole covers, and at the suggestion of employees, additional manhole cover opening magnets will be purchased. Once provided, staff will be expected to use the equipment to more safely lift and secure these heavy covers.
- The HVAC system for the Cape Headworks will be upgraded in 2018. Design of the improvements is currently underway.
- Develop and maintain a safe working environment in each area of responsibility. Develop wastewater operators through the apprentice program; operators rotate through systems, treatment plants, the Asset Management and Planning department (AMaP), the wastewater laboratory, and the Water Services Department.

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 2018 budget total includes an increase of \$131,571 to \$9,382,172. This is a 1.4% increase from the 2017 budget.

Salaries/Wages: Overall budgeted staffing levels remained unchanged. Maintenance support for all treatment plants continues to come from the central treatment maintenance group at the East End treatment plant. Overall, this category has increased by \$65,579 or 3.0%.

Biosolids Disposal: The total budget for the hauling and management of biosolids generated from the treatment of wastewater has increased by \$52,882 in 2018 or 3.6%. The budgeted % Total Solids from the East End WWTF has been lowered slightly to 21.5%. The Westbrook/Gorham/Windham Regional WWTF is expected to increase significantly (21 %TS is anticipated) due to the new dewatering equipment being installed in early 2018. Overall, biosolids production is projected to increase to \$1,504,698, or 3.6% in 2018.

Chemicals: Generally, chemicals are used at each of our facilities to treat and disinfect the treated wastewater before being discharged to the environment, to aid in dewatering biosolids, and for odor control. Overall, the total budget for chemicals has decreased by \$12,849 or 2.2% from the 2017 budget. This is due largely to a decrease in budgeted chemicals used for disinfection and odor control at the East End (due to the new aeration system and engineering programming changes to the odor control system). Operators and our plant control systems closely monitor chemical use at all facilities.

Contracted Services: Contracted services include the costs of the Falmouth and South Portland treatment plants to treat flows conveyed by PWD from Cumberland and Northern Cape Elizabeth. Contracted Services also includes a maintenance agreement related to the CSO monitoring services. The budget amount increased by \$47,412 or 3.8% over the 2017 budget due nearly exclusively to Falmouth's Mill Creek Pump Station upgrade. Through PWD, the town of Cumberland is responsible for 43.2% of the cost of this project.

Heat/Fuel Oil: The East End treatment plant converted from fuel oil to natural gas in 2012. Natural gas use is continually monitored and recorded by the SCADA control system. For 2018, the budget has increased 6.8% or \$9,899. This follows a decrease by \$37,908 or 20.8% in 2017 due to an anticipated decrease in the cost of natural gas at the East End treatment plant. The total budget is \$154,569.

Purchased Power: The power budget has been decreased by \$22,773 or 1.5% in the 2018 budget. Included in the budget projections for 2018, we have estimated that approximately \$17,000 of electricity is expected to be used at the East End as part of our nitrogen reduction efforts in 2018.

Transportation: The transportation budget has decreased by \$49,805 from the 2017 budget. This 16.2% decrease results in a budget amount of \$257,929.

Wastewater Services: Total

Financial Summary:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
B1 - Wastewater Administration	\$174,705	\$84,429	\$180,807	\$294,067	\$113,260	62.6%
B3 - Wastewater Treatment	6,117,184	3,362,533	6,352,408	6,373,881	21,473	0.3%
L9 - Wastewater Systems	2,476,934	1,234,120	2,717,386	2,714,224	-3,162	-0.1%
Grand Total	8,768,823	4,681,082	9,250,601	9,382,172	131,571	1.4%
Expense Type:						
Salaries & Wages	\$2,121,122	\$1,055,591	\$2,198,724	\$2,264,303	\$65,579	3.0%
Employee Benefits	1,028,508	567,039	1,137,796	1,148,134	10,338	0.9%
Biosolids Disposal	1,518,720	952,872	1,451,816	1,504,698	52,882	3.6%
Chemicals	637,931	329,029	589,906	577,057	-12,849	-2.2%
Contracted Services	1,157,307	498,024	1,258,122	1,305,534	47,412	3.8%
Heat/Fuel Oil	135,416	88,580	144,670	154,569	9,899	6.8%
Insurance	43,191	22,395	43,209	49,531	6,322	14.6%
Materials & Supplies	409,076	198,144	411,197	414,768	3,571	0.9%
Other Expense	54,278	16,962	73,455	76,730	3,275	4.5%
Purchased Power	1,267,009	755,876	1,481,886	1,459,113	-22,773	-1.5%
Tele/Other Utilities	135,965	70,563	152,086	169,806	17,720	11.7%
Transportation	260,300	126,007	307,734	257,929	-49,805	-16.2%
Grand Total	8,768,823	4,681,082	9,250,601	9,382,172	131,571	1.4%
Headcount:						
Full Time	39	39	39	38	-1	-2.6%
Part Time	0	0	0	0	0	n/a
Total	39	39	39	38	-1	-2.6%

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$311,340	\$148,192	\$317,560	\$328,982	\$11,422	3.6%
660121 - WAGES/REGULAR UNION	1,630,104	812,310	1,710,821	1,759,618	48,797	2.9%
660122 - WAGES/OVERTIME UNION	122,999	60,539	117,602	122,399	4,797	4.1%
660123 - WAGES/DOUBLETIME UNION	8,704	7,145	12,998	13,764	766	5.9%
660124 - WAGES/STANDBY TIME UNION	33,094	17,661	32,573	31,140	(1,433)	-4.4%
660131 - WAGES - REGULAR - TEMPS	5,397	9,744	7,170	8,400	1,230	17.2%
66014 - VACATION ACCRUAL	9,484	-	-	-	-	-
Salaries & Wages Total	2,121,122	1,055,591	2,198,724	2,264,303	65,579	3.0%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	158,235	83,555	168,202	173,218	5,016	3.0%
660405 - SAFETY/WHY PROGRAM ITEMS	7,660	1,471	7,686	8,450	764	9.9%
660411 - MEALS ALLOWANCE	200	40	450	450	-	0.0%
660413 - PWD TRAINING PROGRAM	185	-	-	-	-	-
6604151 - FIELD UNIFORMS	-	-	75	90	15	20.0%
660418 - STIPENDS	4,200	3,900	5,000	4,600	(400)	-8.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	6,663	-	-	5,790	5,790	n/a
660491 - EE BENEFITS-REG/SAL	851,365	478,073	956,383	955,536	(847)	-0.1%
Employee Benefits Total	1,028,508	567,039	1,137,796	1,148,134	10,338	0.9%
Biosolids Disposal						
663571 - BIOSOLIDS DISPOSAL	1,518,720	952,872	1,451,816	1,504,698	52,882	3.6%
Biosolids Disposal Total	1,518,720	952,872	1,451,816	1,504,698	52,882	3.6%
Chemicals						
661811 - SODIUM BICARBONATE	12,265	10,584	12,911	18,725	5,814	45.0%
661812 - SODIUM BISULFITE	142,748	79,538	152,675	156,824	4,149	2.7%
6618121 - SODIUM BISULFITE-ACCRUAL	(449)	873	-	-	-	n/a
66182 - CAUSTIC SODA	1,141	1,081	7,070	7,070	-	0.0%
66185 - SODIUM HYPOCHLORITE	286,305	113,469	262,414	210,205	(52,209)	-19.9%
661851 - SODIUM HYPO - ACCRUAL	(2,193)	(2,371)	-	-	-	n/a
66189 - POLYMER	186,585	137,568	152,836	182,233	29,397	19.2%
661891 - POLYMER - ACCRUAL	12,527	(10,825)	-	-	-	n/a
661899 - OTHER CHEMICALS	-	-	2,000	2,000	-	0.0%
661821 - CAUSTIC SODA - ACCRUAL	(998)	(888)	-	-	-	n/a
Chemicals Total	637,931	329,029	589,906	577,057	(12,849)	-2.2%
Contracted Services						
6631 - ENGINEERING SERVICES	32,983	16,976	97,500	127,500	30,000	30.8%
663521 - TRAFFIC CONTROL	336	306	300	550	250	83.3%
6635221 - PAVING - MINOR REPAIR	440	-	-	-	-	-
663525 - CONTRACTOR CONSTRUCTION	-	406	25,500	25,500	-	0.0%
66353 - REPAIR SERVICES	15,610	-	13,000	13,000	-	0.0%
66354 - MAINTENANCE SERVICES	314,886	112,915	221,812	221,812	-	0.0%
663543 - CSO FLOW MONITORING	126,228	31,843	191,395	191,395	-	0.0%
663544 - MAINT SERVICES - CCTV	59,763	5,625	65,750	81,250	15,500	23.6%
663546 - MAINTENANCE - SNOW REMOVL	48,686	40,743	52,635	56,795	4,160	7.9%
663547 - WASTE SLUDGE TRANSPORT	31,347	13,025	31,800	31,560	(240)	-0.8%
663551 - LAB ANALYSIS	350	-	1,600	1,600	-	0.0%
663561 - COMPUTER LICENSES	37,214	35,229	36,464	35,324	(1,140)	-3.1%
663562 - COMPUTER MAINTAINENCE	-	-	150	150	-	0.0%
663572 - GRIT & SCREENS DISPOSAL	64,312	25,745	74,450	74,450	-	0.0%
663573 - GREASE DISPOSAL	24,994	10,567	34,700	34,200	(500)	-1.4%
663574 - DISPOSAL SERVICES	6,053	3,267	7,670	7,170	(500)	-6.5%
663585 - TREATMENT CONTRACT SERVIC	388,531	198,464	396,928	396,860	(68)	0.0%
6635851 - WW DEWATERING SERVICES	4,068	2,997	5,438	5,438	-	0.0%
6635852 - WW DEWATERING SRVS CRED	(4,068)	(2,997)	(3,400)	(3,400)	-	0.0%
663587 - COURIER SERVICES	4,376	2,200	4,430	4,380	(50)	-1.1%
663599 - MISC OTHER SERVICES	1,198	713	-	-	-	n/a
Contracted Services Total	1,157,307	498,024	1,258,122	1,305,534	47,412	3.8%

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Heat/Fuel Oil						
66161 - HEATING OIL	\$33,113	\$18,798	\$28,476	\$22,967	(\$5,509)	-19.3%
661621 - PIPELINE DELIVERED PROPAN	75,163	50,073	81,348	91,747	10,399	12.8%
661622 - CONTAINER DELIVERED	26,698	19,709	34,446	39,455	5,009	14.5%
66166 - UNLEADED GAS	442	-	400	400	-	0.0%
Heat/Fuel Oil Total	135,416	88,580	144,670	154,569	9,899	6.8%
Insurance						
66599 - PROPERTY & BOILER INSUR	43,191	22,395	43,209	49,531	6,322	14.6%
Insurance Total	43,191	22,395	43,209	49,531	6,322	14.6%
Materials & Supplies						
6619 - ASSET PURCHASES	118,892	33,017	101,500	103,500	2,000	2.0%
66202 - TOOLS	4,157	3,317	7,600	7,500	(100)	-1.3%
66203 - VENDOR PURCHASED SUPPLIES	172,340	120,517	210,650	210,650	-	0.0%
662041 - MATERIALS INVENTORY	52,855	13,158	34,575	34,775	200	0.6%
662042 - SUPPLIES INVENTORY	28,815	16,341	26,775	26,775	-	0.0%
662043 - TOOL INVENTORY	23,942	5,054	13,775	13,275	(500)	-3.6%
66204301 - INVENTORY - TONER	-	-	200	-	(200)	-100.0%
66204302 - INVENTORY - PAPER	270	30	225	-	(225)	-100.0%
66204303 - INVENTORY-COMPUTER EQUIP	1,716	1,065	3,125	3,800	675	21.6%
662046 - HYDRANT INVENTORY	-	426	-	-	-	n/a
662047 - GARAGE INVENTORY	2,390	1,141	2,075	2,075	-	0.0%
66205 - CONSUMABLE SUPPLIES	739	31	984	918	(66)	-6.7%
66206 - COMPUTER RELATED EQUIP	2,960	4,047	9,713	11,500	1,787	18.4%
Materials & Supplies Total	409,076	198,144	411,197	414,768	3,571	0.9%
Other Expense						
6642 - EQUIPMENT RENT	331	128	500	500	-	0.0%
66609 - OTHER ADVERTISING	1,634	483	500	375	(125)	-25.0%
667511 - TRAINING & CONFERNCES	-	1,048	-	-	-	n/a
6675111 - INSTATE TRAINING/CONF	8,938	6,754	18,250	18,750	500	2.7%
6675112 - OUT OF STATE TRAINING/CON	-	2,546	10,250	11,250	1,000	9.8%
6675121 - IN STATE CONFERENCES	2,065	100	-	-	-	n/a
6675122 - OUT-OF-STATE CONFERENCES	5,412	-	-	-	-	
667513 - DUES	11,688	2,550	12,800	12,800	-	0.0%
667514 - PROFESSIONAL LICENSES	2,812	1,809	2,380	2,380	-	0.0%
667515 - PERIODICAL SUBSCRIPTIONS	175	381	250	250	-	0.0%
667516 - PERMITS	25,713	5,703	26,500	26,500	-	0.0%
667517 - PLANT OPER LICENSE FEES	-	-	75	75	-	0.0%
667518 - REGULATORY REQUIRED FEES	10,326	-	14,000	14,000	-	0.0%
667521 - POSTAGE - THIRD PARTY	35	23	75	75	-	0.0%
667522 - POSTAGE - INTERNAL	165	15	100	100	-	0.0%
667523 - POSTAGE - EXPRESS DELIVER	619	-	350	350	-	0.0%
667531 - PRINTING COSTS	748	-	-	-	-	
667533 - FORMS STOCK	-	-	400	400	-	0.0%
667552 - SAFETY TRAINING	-	-	1,500	1,500	-	0.0%
667555 - SAFETY EXPENSES	3,879	3,760	5,925	7,825	1,900	32.1%
667581 - ANNUAL LAND CONTRIB CAPE	2,500	2,500	2,500	2,500	-	0.0%
667592 - FOOD SUPPLIES	588	737	500	500	-	0.0%
667599 - OTHER MISCELLANEOUS	50	125	-	-	-	n/a
6676 - EXPENSE OFFSET	(23,400)	(11,700)	(23,400)	(23,400)	-	0.0%
Other Expense Total	54,278	16,962	73,455	76,730	3,275	4.5%

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Purchased Power						
66151 - POWER - LARGE ENERGY	\$449,621	\$203,296	\$379,034	\$428,178	\$49,144	13.0%
66152 - POWER - LARGE T&D	343,069	197,882	418,237	365,635	(52,602)	-12.6%
66153 - POWER - MEDIUM ENERGY	228,822	166,721	271,585	241,231	(30,354)	-11.2%
66154 - POWER - MEDIUM T&D	160,716	100,439	187,669	166,901	(20,768)	-11.1%
66155 - POWER - SMALL ENERGY	43,850	27,670	42,433	37,641	(4,792)	-11.3%
66156 - POWER - SMALL T&D	41,169	27,039	45,474	44,165	(1,309)	-2.9%
66157 - POWER - OTHER CHARGES	6,259	33,335	144,454	81,212	(63,242)	-43.8%
66158 - LOAD RESPONSE	(6,497)	(506)	(7,000)	(20,550)	(13,550)	193.6%
66159 - POWER - CAPACITY	-	-	-	114,700	114,700	n/a
Purchased Power Total	1,267,009	755,876	1,481,886	1,459,113	(22,773)	-1.5%
Tele/Other Utilities						
66101 - WATER	93,381	43,445	109,492	125,855	16,363	14.9%
66102 - WASTEWATER	-	8,460	-	-	-	n/a
66103 - STORMWATER CHARGES	17,388	8,568	17,117	17,117	-	0.0%
66111 - TELEPHONE LINES	86	204	-	660	660	n/a
66112 - DATA LINES	16,299	6,960	17,694	16,663	(1,031)	-5.8%
66113 - CELLULAR PHONES	8,033	2,670	7,443	9,171	1,728	23.2%
66114 - PAGERS	778	256	340	340	-	0.0%
Tele/Other Utilities Total	135,965	70,563	152,086	169,806	17,720	11.7%
Transportation						
66501 - TRANSPORTATION - INTERNAL	137,136	63,327	213,215	163,495	(49,720)	-23.3%
665019 - TRANS INTERNAL INACTIVE	108,109	57,950	78,225	78,140	(85)	-0.1%
66502 - TRANSPORTATION - EXTERNAL	14,171	3,906	14,800	14,800	-	0.0%
66503 - MILEAGE REIMBURSEMENT	877	822	1,494	1,494	-	0.0%
66504 - MTA TRANS-PASS TOLL FEES	7	2	-	-	-	n/a
Transportation Total	260,300	126,007	307,734	257,929	(49,805)	-16.2%
Grand Total	8,768,823	4,681,082	9,250,601	9,382,172	131,571	1.4%

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

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$104,645	\$53,011	\$105,641	\$179,291	\$73,650	69.7%
Employee Benefits	54,349	28,882	58,092	97,202	39,110	67.3%
Contracted Services	279	125	650	650	0	0.0%
Materials & Supplies	19	215	150	150	0	0.0%
Other Expense	14,301	1,782	14,605	15,105	500	3.4%
Tele/Other Utilities	1,008	399	1,500	1,500	0	0.0%
Transportation	104	15	169	169	0	0.0%
Grand Total	174,705	84,429	180,807	294,067	113,260	62.6%
Programs:						
98 - Training	12,105	4,655	6,290	11,079	4,789	76.1%
99 - Administration	162,600	79,774	174,517	282,988	108,471	62.2%
Grand Total	174,705	84,429	180,807	294,067	113,260	62.6%
Funds:						
10 - General	209	0	0	0	0	n/a
50 - Wastewater General	174,496	84,429	180,807	294,067	113,260	62.6%
Grand Total	174,705	84,429	180,807	294,067	113,260	62.6%
Headcount:						
Full-Time	1	1	1	2	1	100.0%
Part-Time	0	0	0	0	0	n/a
Total	1	1	1	2	1	100.0%

Wastewater Services: Wastewater Treatment Plants (B3)

Financial Summary:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$1,311,701	\$655,979	\$1,364,372	\$1,331,019	-\$33,353	-2.4%
Employee Benefits	624,443	349,776	700,413	664,926	-35,487	-5.1%
Biosolids Disposal	1,518,720	952,872	1,451,816	1,504,698	52,882	3.6%
Chemicals	637,931	329,029	589,906	577,057	-12,849	-2.2%
Contracted Services	567,212	298,361	615,123	641,120	25,997	4.2%
Heat/Fuel Oil	122,680	78,904	131,609	138,093	6,484	4.9%
Insurance	21,035	10,658	21,005	27,716	6,711	31.9%
Materials & Supplies	282,427	143,085	283,159	285,718	2,559	0.9%
Other Expense	30,695	7,590	44,550	44,425	-125	-0.3%
Purchased Power	827,505	449,972	960,400	974,911	14,511	1.5%
Tele/Other Utilities	97,194	50,795	112,519	111,789	-730	-0.6%
Transportation	75,641	35,512	77,536	72,409	-5,127	-6.6%
Grand Total	6,117,184	3,362,533	6,352,408	6,373,881	21,473	0.3%
Programs:						
44 - WW Pumping	13,854	19,585	10,504	6,826	-3,678	-35.0%
45 - WW Treatment	5,635,988	3,094,872	5,905,460	5,944,984	39,524	0.7%
98 - Training	93,422	39,278	107,452	106,002	-1,450	-1.3%
99 - Administration	373,920	208,798	328,992	316,069	-12,923	-3.9%
Grand Total	6,117,184	3,362,533	6,352,408	6,373,881	21,473	0.3%
Funds:						
50 - Wastewater General	467,342	248,076	436,444	422,071	-14,373	-3.3%
51 - WW Cape Elizabeth	369,525	206,081	420,913	427,412	6,499	1.5%
53 - WW Cumberland	0	487	0	0	0	n/a
57 - WW Portland	4,183,019	2,296,483	4,297,897	4,439,791	141,894	3.3%
61 - WW Gorham	246	4,868	0	0	0	n/a
62 - WW Westbrook	3,420	2,041	5,618	3,413	-2,205	-39.2%
64 - WW Joint Westbrook	950,109	517,342	994,225	890,092	-104,133	-10.5%
65 - WW Joint LF	210	0	0	0	0	n/a
66 - WW Peaks Island	143,313	87,155	197,311	191,102	-6,209	-3.1%
Grand Total	6,117,184	3,362,533	6,352,408	6,373,881	21,473	0.3%
Headcount:						
Full-Time	24	25	25	23	-2	-8.0%
Part-Time	0	0	0	0	0	n/a
Total	24	25	25	23	-2	-8.0%

Wastewater Services: Wastewater Systems (L9)

Financial Summary:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$704,776	\$346,601	\$728,711	\$753,993	\$25,282	3.5%
Employee Benefits	349,716	188,381	379,291	386,006	6,715	1.8%
Contracted Services	589,816	199,538	642,349	663,764	21,415	3.3%
Heat/Fuel Oil	12,736	9,676	13,061	16,476	3,415	26.1%
Insurance	22,156	11,737	22,204	21,815	-389	-1.8%
Materials & Supplies	126,630	54,844	127,888	128,900	1,012	0.8%
Other Expense	9,282	7,590	14,300	17,200	2,900	20.3%
Purchased Power	439,504	305,904	521,486	484,202	-37,284	-7.1%
Tele/Other Utilities	37,763	19,369	38,067	56,517	18,450	48.5%
Transportation	184,555	90,480	230,029	185,351	-44,678	-19.4%
Grand Total	2,476,934	1,234,120	2,717,386	2,714,224	-3,162	-0.1%
Programs:						
39 - Compost Site	1,109	492	2,000	1,500	-500	-25.0%
41 - Pretreatment	0	0	0	17,396	17,396	n/a
44 - WW Pumping	1,738,600	852,810	2,031,550	1,983,750	-47,800	-2.4%
45 - WW Treatment	217,814	104,922	214,790	249,777	34,987	16.3%
90 - Vehicles	33,040	13,876	35,750	28,650	-7,100	-19.9%
95 - Douglass Street	23,353	6,397	15,836	17,352	1,516	9.6%
98 - Training	69,730	40,663	59,466	60,539	1,073	1.8%
99 - Administration	393,288	214,960	357,994	355,260	-2,734	-0.8%
Grand Total	2,476,934	1,234,120	2,717,386	2,714,224	-3,162	-0.1%
Funds:						
10 - General	28,753	9,716	28,872	25,513	-3,359	-11.6%
20 - Water General	12,312	6,130	10,601	6,139	-4,462	-42.1%
50 - Wastewater General	518,032	292,060	475,814	474,964	-850	-0.2%
51 - WW Cape Elizabeth	354,078	143,896	318,364	322,915	4,551	1.4%
53 - WW Cumberland	363,030	163,646	370,209	364,695	-5,514	-1.5%
55 - WW Windham LF	27,932	11,410	36,488	34,082	-2,406	-6.6%
57 - WW Portland	668,849	372,640	883,696	885,303	1,607	0.2%
61 - WW Gorham	126,657	73,536	162,959	156,662	-6,297	-3.9%
62 - WW Westbrook	130,945	58,179	160,143	164,555	4,412	2.8%
64 - WW Joint Westbrook	126,380	67,425	134,017	136,196	2,179	1.6%
65 - WW Joint LF	38,692	19,313	60,436	55,534	-4,902	-8.1%
66 - WW Peaks Island	81,274	16,169	75,787	87,666	11,879	15.7%
Grand Total	2,476,934	1,234,120	2,717,386	2,714,224	-3,162	-0.1%
Headcount:						
Full-Time	13	13	13	13	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	13	13	13	13	0	0.0%

Environmental Services



Lead Monitoring, 2017

Reducing customer exposure to lead by controlling corrosion in the water distribution system has been a public health goal of the PWD since inception of the EPA's Lead and Copper Rule in 1991. We tested for lead as required in 2017 and, once again, the results show that corrosion control treatment employed at the Sebago Lake Water Treatment Facility continues to be effective. We tested at 51 homes and the reported lead level (90th percentile) was just 4 ppb. This is far below the EPA action level of 15 ppb.

Three PWD departments (A1, A3 and L6) worked together to identify and talk with customers; assemble, deliver, and retrieve test kits; analyze samples; and report the results to the customers and the state.

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

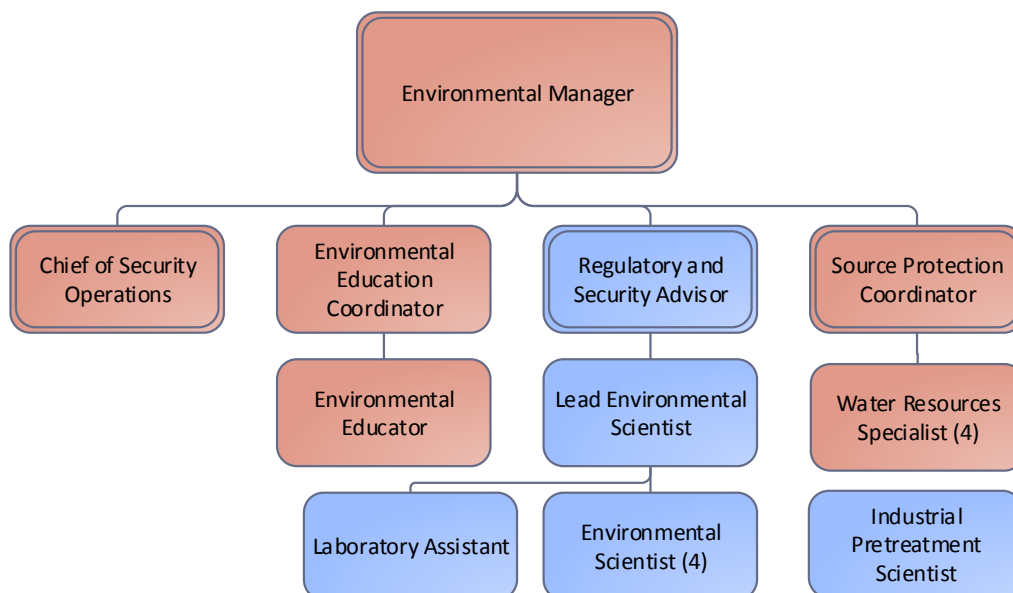
Environmental Services provides services in five core areas:

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

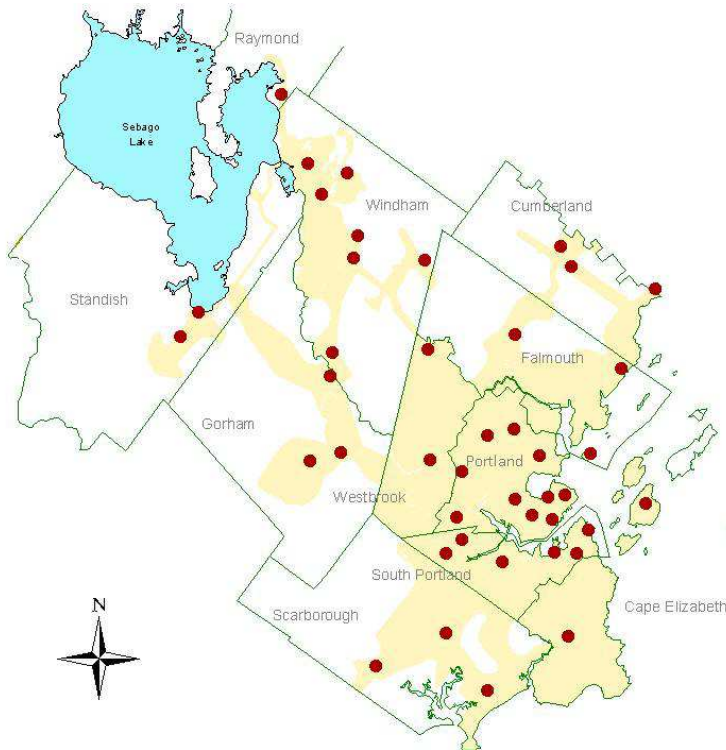
1. The Source Protection section monitors Sebago Lake and the watershed, inspects development projects in the watershed to minimize their impact, works with watershed partners to install pollution prevention and mitigation projects, and works with watershed land trusts to help landowners seeking to conserve 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: 14

Annual Watershed Inspections: 400

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

Annual Land Reserve Day-use Visitors: 15,000

Land Reserve Violations Issued: 190

Annual Lower Bay Patrol Hours: 2000

Annual Lower Bay Violators cited: 105

Certified Laboratory Analytes: 72

Average Annual Water Quality Inquiries: 323

IPT Industries Regulated: 41

Performance Benchmarks

Corporate Goals – Public Health and Environment	2016 Actual	2017 Projected	2018 Goal
% Verified - Water Quality Inquiries	21	20	20
Shore Land Zone Inspections	458	400	450
Watershed Properties Improved or Recommendations Made	23	20	30
Lower Bay Water Violations	48	47	50
Land Reserve Visitors	27,500	28,000	30,000
Land Reserve Violations	268	240	250
Visitors per Land Reserve Violation	102	116	120
Certified Laboratory Analytes	38	72	76
Students served monthly by WaterWays In-School Program	932	1000	1000
Outreach Events organized by PWD	25	20	20

Past Accomplishments:

Source Protection since 2000:

- Completed more than 8,900 watershed inspections.
- Made recommendations for improvements to more than 532 watershed properties
- Directed water quality-related improvements to more than 235 properties.
- Awarded more than \$271,000 in Lake Stewards Grants which, when combined with matching funds, resulted in more than \$1,000,000 in improvements to the shoreland zone of Sebago Lake.
- Maintained 14 ongoing lake and watershed monitoring programs.
- Reviewed plans for more than 156 large developments and, when necessary, provided planning board feedback in an effort to minimize the impact of these projects.
- Responded to 465 complaints, 164 of which prevented or mitigated environmental violations and/or pollution.
- Contributed more than \$527,000 to assist in the conservation by area land trusts of 4164 acres of land in the watershed.

Education and Outreach since 2000:

- Produced 26 Watershed News newsletters and 5 State of the Lake reports.
- Distributed more than 61,700 Sebago Lake maps and 12,300 “Images of Sebago Lake” calendars to watershed residents and visitors.
- Distributed more than 99,200 brochures and fact sheets to watershed residents and visitors.
- Posted over 280 source protection related messages on Facebook to an audience that began at 490 in 2013 and has increased to over 1,900 followers.
- Sent over 30 mass emails about source protection events, publications, and information to a recipient list that started in 2015 with 1,100 email addresses and has increased to over 3,400.
- Taught source protection principles to approximately 16,000 middle school-aged students through our WaterWays in-school education program.
- Provided environmental education to approximately 26,600 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 20,542 hours combined.
- Patrolled the Sebago Lake Land Reserve by using an all terrain vehicle (Extended Security patrol) for approximately 1,150 hours combined.
- Issued more than 1,687 warnings for violation of water contact regulations
- Recorded 139,027 day-use visits to the Sebago Lake Land Reserve.
- Issued more than 2,505 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:

- Combined the water and wastewater laboratories into 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.
- Modified laboratory procedures continuously to EPA and state standards to maintain certification for water and wastewater analyses.

- **Past Accomplishments (continued)**

- 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 approximately 250 calls per year.
- 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.

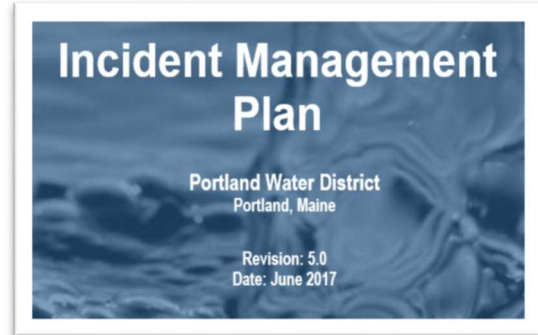
Budget Year 2017 Highlights:

- Developed and piloted a water quality data interface (WQDI) that utilizes and integrates the District's existing databases to display water quality data from the watershed to the distribution system.
- Published and distributed an updated version of our "Lakes Like Less Lawn" vegetative buffer enhancement brochure.
- Continued implementation of the Board's 2013 Watershed Land Conservation Program by collaborating with national and local conservation groups to form the Sebago Clean Waters partnership.
- Collaborated with St. Joseph's College to apply for and receive grant funding to purchase a real-time water quality monitoring buoy for Sebago Lake.
- Continued implementation of a \$59,327 federal grant to address non-point source pollution to Sebago Lake as part of the Sebago Lake Phase III Implementation project.
- Provided technical assistance and beach monitoring training to the Town of Standish for the newly opened Rich Memorial Beach
- Identified regulatory requirements for facility emergency Integrated Contingency Plans (ICP's)
- Continued to test soils at main break locations for corrosivity - "hot soils"- to support main repair/replacement program.
- Supported service area schools with lead testing and technical support.
- Completed Lead and Copper Rule monitoring and reporting for the Greater Portland system.
- Coordinated District participation in national Gridex exercise with CMP.
- Updated the PWD Incident Management Plan.
- Assessed and made presentations about the WQ benefits of new drinking water treatment.
- Provided laboratory support to the Maine Healthy Beach Program by testing East End beach for bacteria.
- Maintained good standing with DHHS lab certification program following audits.
- Implemented the inaugural year of the WaterWays Program at seven watershed and service area schools. It is now carried out by one educator, more closely aligns with science curriculum, and meets national science standards.
- Organized and participated in an emergency response training exercise within the Water Operations group.
- Completed a floating boardwalk near the Lake Office which gives the public a way to walk through a seasonally flooded wetland.
- Repowered the lake patrol boat with a new engine.

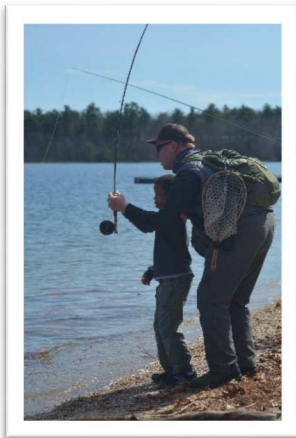
2017 Highlights



Implemented the inaugural year of the WaterWays Program at seven watershed and service area schools



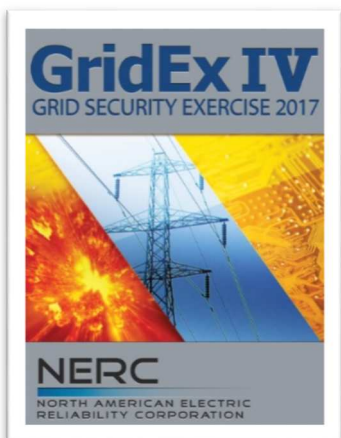
Updated the PWD Incident Management Plan



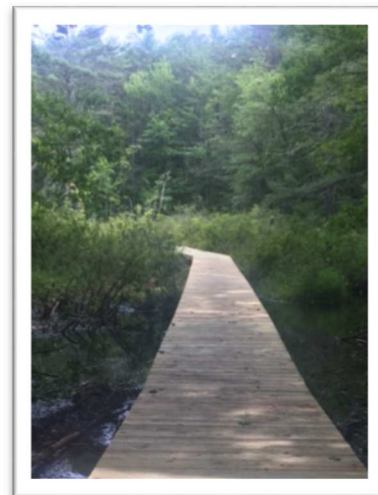
Coordinated the first year of the Water Connections program, hosting four recreation/science events at outdoor locations throughout the watershed



Completed Lead and Copper Rule monitoring in the Greater Portland water system

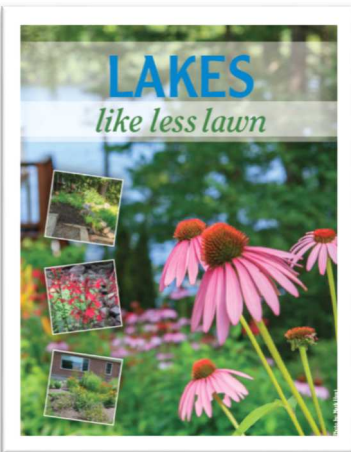


Coordinated District participation in Gridex exercise with CMP



Worked with General Services to complete the rebuild of the wetland boardwalk behind the Lake Office

2017 Highlights (continued)



Published and distributed an updated version of our popular “Lakes Like Less Lawn” buffer enhancement brochure

WQDI Sample Site Fact Sheet

Location: TRIB-1952 Brook

Program: Tributary Run (SOUTR8)

Location: X,Y Coordinates

Variables:	
0001	TRIB-1952 Brook
0002	TRIB-1952 Brook
0003	TRIB-1952 Brook
0004	TRIB-1952 Brook
0005	TRIB-1952 Brook
0006	TRIB-1952 Brook
0007	TRIB-1952 Brook
0008	TRIB-1952 Brook
0009	TRIB-1952 Brook
0010	TRIB-1952 Brook
0011	TRIB-1952 Brook
0012	TRIB-1952 Brook
0013	TRIB-1952 Brook
0014	TRIB-1952 Brook
0015	TRIB-1952 Brook
0016	TRIB-1952 Brook
0017	TRIB-1952 Brook
0018	TRIB-1952 Brook
0019	TRIB-1952 Brook
0020	TRIB-1952 Brook
0021	TRIB-1952 Brook
0022	TRIB-1952 Brook
0023	TRIB-1952 Brook
0024	TRIB-1952 Brook
0025	TRIB-1952 Brook
0026	TRIB-1952 Brook
0027	TRIB-1952 Brook
0028	TRIB-1952 Brook
0029	TRIB-1952 Brook
0030	TRIB-1952 Brook
0031	TRIB-1952 Brook
0032	TRIB-1952 Brook
0033	TRIB-1952 Brook
0034	TRIB-1952 Brook
0035	TRIB-1952 Brook
0036	TRIB-1952 Brook
0037	TRIB-1952 Brook
0038	TRIB-1952 Brook
0039	TRIB-1952 Brook
0040	TRIB-1952 Brook
0041	TRIB-1952 Brook
0042	TRIB-1952 Brook
0043	TRIB-1952 Brook
0044	TRIB-1952 Brook
0045	TRIB-1952 Brook
0046	TRIB-1952 Brook
0047	TRIB-1952 Brook
0048	TRIB-1952 Brook
0049	TRIB-1952 Brook
0050	TRIB-1952 Brook
0051	TRIB-1952 Brook
0052	TRIB-1952 Brook
0053	TRIB-1952 Brook
0054	TRIB-1952 Brook
0055	TRIB-1952 Brook
0056	TRIB-1952 Brook
0057	TRIB-1952 Brook
0058	TRIB-1952 Brook
0059	TRIB-1952 Brook
0060	TRIB-1952 Brook
0061	TRIB-1952 Brook
0062	TRIB-1952 Brook
0063	TRIB-1952 Brook
0064	TRIB-1952 Brook
0065	TRIB-1952 Brook
0066	TRIB-1952 Brook
0067	TRIB-1952 Brook
0068	TRIB-1952 Brook
0069	TRIB-1952 Brook
0070	TRIB-1952 Brook
0071	TRIB-1952 Brook
0072	TRIB-1952 Brook
0073	TRIB-1952 Brook
0074	TRIB-1952 Brook
0075	TRIB-1952 Brook
0076	TRIB-1952 Brook
0077	TRIB-1952 Brook
0078	TRIB-1952 Brook
0079	TRIB-1952 Brook
0080	TRIB-1952 Brook
0081	TRIB-1952 Brook
0082	TRIB-1952 Brook
0083	TRIB-1952 Brook
0084	TRIB-1952 Brook
0085	TRIB-1952 Brook
0086	TRIB-1952 Brook
0087	TRIB-1952 Brook
0088	TRIB-1952 Brook
0089	TRIB-1952 Brook
0090	TRIB-1952 Brook
0091	TRIB-1952 Brook
0092	TRIB-1952 Brook
0093	TRIB-1952 Brook
0094	TRIB-1952 Brook
0095	TRIB-1952 Brook
0096	TRIB-1952 Brook
0097	TRIB-1952 Brook
0098	TRIB-1952 Brook
0099	TRIB-1952 Brook
0100	TRIB-1952 Brook

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

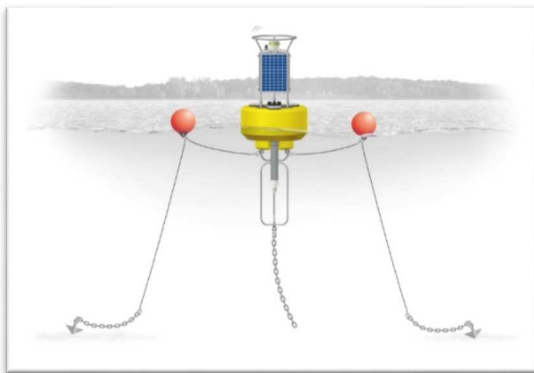
Developed and piloted a water quality data interface (WQDI) that will be used to display water quality data from the watershed to the distribution system



Provided technical assistance and beach monitoring training for the newly opened Rich Memorial Beach in Standish



Assessed and reported on the WQ benefits of our new drinking water treatment processes



Collaborated with St. Joseph's College to apply for and receive grant funding to purchase a real-time water quality monitoring buoy for Sebago Lake



Repowered the lake patrol boat

2018 Projects and Initiatives

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 grant funding to promote more on-the-ground water quality improvements in the shoreland zone of Sebago Lake.
- Complete scheduled monitoring and testing for all 14 water quality monitoring programs, analyze the data, and produce applicable water quality assessment reports.
- Deploy real-time water quality monitoring buoy in Lower Bay and set up a data collection interface that helps generate collaborative lake science projects with St. Joseph's College and other universities.
- Continue implementation of the Sebago Lake Phase III federal 319 grant to perform and implement watershed improvement projects based on the watershed-based management plan for Sebago Lake.
- Monitor planning board agendas, provide technical assistance, and track large-scale projects such as subdivision and commercial development within the Sebago Lake watershed.
- Continue collaboration with the Presumpscot Regional Land Trust to ensure that Sebago to the Sea trail stewardship remains in accordance with District security/land use policies.
- Monitor the re-construction of Route 35 along the southern shore of Lower Bay to help ensure the lake is not impacted and construction is completed in accordance with the plan.
- Maintain communication with Portland Pipeline Corporation and continue monitoring the status of their operations and potential plans.

Environmental Laboratories and Industrial Pretreatment

- Continue support of WW Operation's diffused aeration operations plan development.
- Re-certify testing methods at East End and Sebago Lake laboratories for all reportable analytes.
- Report on water quality inquiries including those at dead end locations.
- Monitor for algal toxins per the EPA's fourth Unregulated Contaminant Monitoring Rule.
- Continue lab safety awareness through hazard analysis, proper labeling, and chemical inventory procedures.
- Manage IPT scheduling and data management through the District's AIM system.
- Assess the need for IPT local limits modifications in Westbrook and Portland and, as necessary, support their promulgation into municipal ordinances.
- Provide training to water and wastewater operators/apprentices to improve data quality and understanding.
- Provide nitrogen and phosphorus monitoring support at wastewater facilities to support nutrient testing program.
- Provide water quality training to District staff.

2018 Projects and Initiatives (continued)

District Security

- Lead meetings of the District's Security Committee.
- Exercise District's emergency response plan with either a full scale or table top exercise.
- Patrol Lower Bay by boat during summer, ensuring compliance with body contact and trespassing restrictions.
- Patrol Sebago Lake Land Reserve year-round to ensure compliance with District land use policy.
- Increase patrol of the Otter Pond Parcel of the Sebago Lake Land Reserve in an effort to address the growing number of visitors.
- Provide field oversight of District logging operations and track documentation.
- Conduct training for Operations staff in security patrol procedures of District's water storage facilities.
- Conduct training of Lake Office staff in Land Reserve patrol procedures.
- Support local first responders as requested in response to Sebago Lake rescue incidents.
- Patrol Lower Bay during ice fishing season to minimize impact of activity on water quality.
- Improve parking conditions at the Trestle kiosk.
- Support Water and Wastewater operations to initiate updates to emergency Integrated Contingency Plans.
- Perform audits of Facility Security Operating Plans (FSOPs) of District facilities.
- Complete the Rte. 35 kiosk parking lot expansion to include a new trail to the 2 mile beach.
- Add additional buoys to the 2 mile and 3,000-foot limits in an effort to advise boaters of restriction zones and decrease violations.

Environmental Education and Outreach

- Implement the second year of our in-school education program, WaterWays, in watershed and service area schools, serving approximately 1000 middle school students.
- Provide source protection activities to summer recreation camps in our service area.
- Implement the second year of *Water Connections* events, our outdoor recreation/science events held throughout the watershed during each season of the year.
- Maintain 2017 level of TroutKids program in watershed and service area schools.
- Collaborate with partners, coordinate events, and serve as a resource for watershed and service area schools and groups to teach source protection and water stewardship principles.
- Coordinate outreach initiatives with District public relations efforts.
- Utilize technology and a variety of media to connect the public with PWD events and environmental stewardship messages.
- Recognize Drinking Water Week with District-sponsored 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 2018 Staffing Changes:

- The budget reflects an additional position – Industrial Pretreatment Coordinator – beginning on April 1. This position will manage the responsibilities of the Industrial Pretreatment Program for the City of Portland which were formerly managed by the City.
- We are shifting a half-time intern position from the L6 Environmental Laboratory group to the A5 Environmental Education group. The new intern will be for six months rather than twelve so the overall cost to the District is lower.

2018 Projects and Initiatives



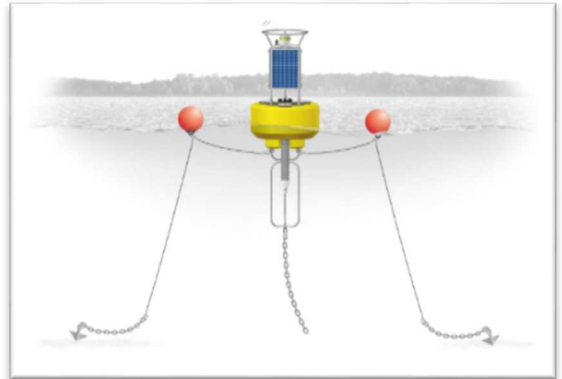
Expand the WaterWays program to one additional school through collaboration with partners



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



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



Deploy real-time water quality monitoring buoy in Lower Bay and set up data interface for data transmission



Continue support of WW Operation's diffused aeration operations plan development



Monitor re-construction of Route 35 along the southern shoreline of Lower Bay

2018 Projects and Initiatives (continued)



Monitor for algal toxins per the EPA
Unregulated Contaminant Monitoring Rule



Complete the resurfacing of the parking area
along Route 35 at the Pond Road parcel and
improve and mark the trails in this area



Add additional buoys to more clearly delineate
the restricted areas that protect our intakes

2018 Grants to Watershed Partners

2018 Proposed	Type	Recipient	Purpose
\$2,000	Teacher Support Grants	Maine Educators	Environmental Education
<i>Provides teaching resources to local teachers to support water education.</i>			
\$16,000	Lakescaping Grants	Watershed property owners, businesses	Source Protection
<i>Grants of up to \$1,000 are made to individual property owners and up to \$2,000 to businesses, associations, or municipalities for implementing erosion and sedimentation control BMPs based on our recommendations. A 50-50 match is required.</i>			
\$1,250	Lake Protection Support	Maine Lakes Society	Advocacy
<i>A contribution of \$1,000 to Maine Lakes Society to support their operations. Their advocacy benefits all surface supplies including PWD.</i>			
\$1,250	Lake Protection Support	Volunteer Lakes Monitoring Program	Advocacy, Monitoring
<i>A contribution of \$1,000 to support their operations. Their outreach raises awareness statewide to issues of lake protection, particularly invasive aquatic plants. They conduct training at PWD and for PWD employees on request.</i>			
\$13,000	Watershed Organization Support	Lakes Environmental Association	Advocacy, Education, Source Protection
<i>LEA provides support for our upper watershed protection efforts. All lakes they work on ultimately lead to Sebago. LEA monitors lake water quality and participates in the planning process in upper watershed towns to minimize development impact. Staff provides technical assistance to lakefront landowners on BMPs for lake protection and compliance with Shoreland zoning and the Natural Resources Protection Act. LEA also provides water-related education to area schools and recently completed construction of the new Lakes Science Center.</i>			
\$1,000	Watershed Organization Support	Raymond Waterways Protective Association	Outreach, Source Protection
<i>RWPA works on invasive plant control, BMP installation, and do outreach via a newsletter. They work on 319 projects in the indirect watershed. They also receive financial support from the town, grants, and individuals.</i>			

2018 Grants to Watershed Partners (Continued)

2018 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>			
\$39,050	Total Grant Support to Watershed Partners		

Conservation Land acquired by Land Trusts with District support

Year	Transactions	Acres	Amount of District Support	Total Value of Land Acquired in Fee or Easement
2008	1	350	\$5,000	\$100,000
2009	1	23	\$500	\$25,000
2010	1	60	\$10,000	\$1,500,000
2011	1	690	\$9,250	\$750,000
2012	2	116	\$6,900	\$297,000
2013	4	1,005	\$68,990	\$1,268,500
2014	4	1,301	\$346,443	\$2,410,000
2015	2	91	\$38,435	\$374,100
2016	0	0	\$0	0
2017	2	108	\$13,600	\$143,000
Total	18	3,744	\$499,118.00	\$6,867,600.00

Financial Overview

The overall Environmental Services budget is up 5.9% from the 2017 budget. The most significant change is the addition of a position in the L6 section to coordinate the responsibilities associated with taking over the role the City of Portland historically managed for the Industrial Pretreatment Program.

A5: Water Resources

- A temporary intern position has been shifted from the L6 to the A5 budget and this increase to A5 is reflected in the cost of Salaries & Wages. Most of the Salaries & Wages increase is due to step increases for existing staff – the intern position accounts for about \$6000 of the increase.
- There is an increase of \$5000 in the Education budget which is for a contract with Cumberland County Soil and Water Conservation Service to provide an educator to expand our WaterWays program into another school district.

L6: Laboratory Services

- The budget for our two environmental laboratories is essentially flat with no significant changes in labor or O & M.
- The most significant change in the L6 budget is a \$69,660 increase in the Pretreatment budget which results from the District assuming oversight responsibilities from the City of Portland.

Financial Summary:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
A5 - Water Resources	\$1,032,451	\$491,003	\$1,085,683	\$1,121,244	\$35,561	3.3%
L6 - Water/WW Laboratory	846,016	448,988	862,236	942,394	80,158	9.3%
Grand Total	1,878,467	939,991	1,947,919	2,063,638	115,719	5.9%
Expense Type:						
Salaries & Wages	\$979,731	\$484,373	\$979,444	\$1,050,956	\$71,512	7.3%
Employee Benefits	463,000	252,909	505,449	535,924	30,475	6.0%
Chemicals	4,817	1,444	4,210	5,100	890	21.1%
Contracted Services	119,284	41,448	112,276	115,836	3,560	3.2%
Heat/Fuel Oil	10,632	4,452	13,600	12,700	-900	-6.6%
Insurance	2,340	1,165	2,323	4,330	2,007	86.4%
Materials & Supplies	90,128	64,554	111,388	114,138	2,750	2.5%
Other Expense	154,563	63,410	163,675	171,929	8,254	5.0%
Purchased Power	3,055	1,922	2,992	3,145	153	5.1%
Tele/Other Utilities	2,974	746	3,630	2,687	-943	-26.0%
Transportation	47,943	23,568	48,932	46,893	-2,039	-4.2%
Grand Total	1,878,467	939,991	1,947,919	2,063,638	115,719	5.9%
Headcount:						
Full Time	15	15	15	16	1	6.7%
Part Time	1	1	1	1	0	0.0%
Total	16	16	16	17	1	6.3%

Environmental Services: Total

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$333,112	\$170,468	\$341,076	\$398,114	\$57,038	16.7%
660121 - WAGES/REGULAR UNION	534,459	279,978	557,908	574,899	16,991	3.0%
660122 - WAGES/OVERTIME UNION	31,191	12,342	22,558	25,245	2,687	11.9%
660123 - WAGES/DOUBLETIME UNION	2,012	1,979	3,183	2,508	(675)	-21.2%
660131 - WAGES - REGULAR - TEMPS	69,080	19,606	54,719	50,190	(4,529)	-8.3%
660132 - WAGES - OVERTIME- TEMPS	10	-	-	-		
66014 - VACATION ACCRUAL	9,867	-	-	-		
Salaries & Wages Total	979,731	484,373	979,444	1,050,956	71,512	7.3%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	72,762	36,631	74,924	80,398	5,474	7.3%
660403 - LIFE INSURANCE	-	1,200	-	-	-	n/a
660405 - SAFETY/WHY PROGRAM ITEMS	3,549	990	3,555	3,680	125	3.5%
6604151 - FIELD UNIFORMS	1,255	-	1,200	1,200	-	0.0%
660418 - STIPENDS	1,700	1,800	1,900	1,900	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	2,991	-	-	3,590	3,590	n/a
660491 - EE BENEFITS-REG/SAL	380,743	212,288	423,870	445,156	21,286	5.0%
Employee Benefits Total	463,000	252,909	505,449	535,924	30,475	6.0%
Chemicals						
661899 - OTHER CHEMICALS	4,817	1,444	4,210	5,100	890	21.1%
Chemicals Total	4,817	1,444	4,210	5,100	890	21.1%
Contracted Services						
66353 - REPAIR SERVICES	7,171	-	2,000	2,000	-	0.0%
66354 - MAINTENANCE SERVICES	43,123	21,505	48,691	48,844	153	0.3%
663546 - MAINTENANCE - SNOW REMOVL	9,676	5,692	1,600	1,600	-	0.0%
663551 - LAB ANALYSIS	43,513	11,621	38,635	42,602	3,967	10.3%
663553 - PHOTOGRAPHY SERVICES	-	-	500	600	100	20.0%
663561 - COMPUTER LICENSES	107	207	-	-	-	n/a
663574 - DISPOSAL SERVICES	2,018	390	3,600	3,600	-	0.0%
663587 - COURIER SERVICES	2,188	1,100	2,250	2,190	(60)	-2.7%
6636 - TECHNICAL SERVICES	11,488	933	15,000	14,400	(600)	-4.0%
Contracted Services Total	119,284	41,448	112,276	115,836	3,560	3.2%
Heat/Fuel Oil						
661622 - CONTAINER DELIVERED	5,806	2,904	6,600	5,700	(900)	-13.6%
66166 - UNLEADED GAS	4,826	1,548	7,000	7,000	-	0.0%
Heat/Fuel Oil Total	10,632	4,452	13,600	12,700	(900)	-6.6%
Insurance						
66599 - PROPERTY & BOILER INSUR	2,340	1,165	2,323	4,330	2,007	86.4%
Insurance Total	2,340	1,165	2,323	4,330	2,007	86.4%
66166 - UNLEADED GAS	6,003	1,023	7,500	7,000	(500)	-6.7%
Heat/Fuel Oil Total	11,649	4,653	15,515	13,600	(1,915)	-12.3%
Insurance						
66599 - PROPERTY & BOILER INSUR	2,327	1,171	2,322	2,323	1	0.0%
Insurance Total	2,327	1,171	2,322	2,323	1	0.0%

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Materials & Supplies						
6619 - ASSET PURCHASES	\$5,956	\$22,300	\$16,000	\$13,000	(\$3,000)	-18.8%
66202 - TOOLS	589	178	1,000	1,500	500	50.0%
66203 - VENDOR PURCHASED SUPPLIES	8,832	1,778	10,700	11,450	750	7.0%
662042 - SUPPLIES INVENTORY	1,030	330	1,325	1,725	400	30.2%
662042 - TOOL INVENTORY	1,128	1,121	350	1,000	650	185.7%
662043 - TOOL INVENTORY	645	279	650	650	-	0.0%
66204302 - INVENTORY - PAPER	120	-	300	300	-	0.0%
66204303 - INVENTORY-COMPUTER EQUIP	1,905	389	4,513	5,150	637	14.1%
662047 - GARAGE INVENTORY	-	-	100	100	-	0.0%
66205 - CONSUMABLE SUPPLIES	65,911	37,722	73,950	76,300	2,350	3.2%
66206 - COMPUTER RELATED EQUIP	4,012	457	2,500	2,963	463	18.5%
Materials & Supplies Total	90,128	64,554	111,388	114,138	2,750	2.5%
Other Expense						
66411 - INTERNAL RENTAL CHARGES	48,600	24,300	48,600	48,600	-	0.0%
6642 - EQUIPMENT RENT	1,354	-	300	300	-	0.0%
66601 - PUBLIC RELATIONS	5,072	2,320	6,650	7,400	750	11.3%
66609 - OTHER ADVERTISING	1,253	657	1,900	2,000	100	5.3%
6675111 - IN STATE TRAINING/CONF	5,193	5,170	7,700	6,550	(1,150)	-14.9%
6675112 - OUT OF STATE TRAINING/CON	2,856	3,579	7,600	8,150	550	7.2%
6675121 - IN STATE CONFERENCES	192	-	-	-	-	-
6675122 - OUT-OF-STATE CONFERENCES	915	-	-	-	-	-
667513 - DUES	15,675	15,194	17,745	19,494	1,749	9.9%
667514 - PROFESSIONAL LICENSES	4,499	75	795	4,750	3,955	497.5%
667515 - PERIODICAL SUBSCRIPTIONS	98	105	410	385	(25)	-6.1%
667521 - POSTAGE - THIRD PARTY	1,840	36	2,800	2,800	-	0.0%
667522 - POSTAGE - INTERNAL	1,148	201	1,100	875	(225)	-20.5%
667523 - POSTAGE - EXPRESS DELIVER	1,145	118	100	200	100	100.0%
667531 - PRINTING COSTS	24,260	5,483	25,400	21,800	(3,600)	-14.2%
667555 - SAFETY EXPENSES	526	38	100	100	-	0.0%
667561 - WATERSHED GRANTS/SUPPORT	36,195	4,750	38,550	44,050	5,500	14.3%
667591 - UNIFORMS	1,796	1,017	2,000	2,000	-	0.0%
667592 - FOOD SUPPLIES	1,774	56	1,875	2,425	550	29.3%
667599 - OTHER MISCELLANEOUS	172	311	50	50	-	0.0%
Other Expense Total	154,563	63,410	163,675	171,929	8,254	5.0%
Purchased Power						
66155 - POWER - SMALL ENERGY	1,721	1,038	1,573	1,600	27	1.7%
66156 - POWER - SMALL T&D	1,334	884	1,419	1,545	126	8.9%
Purchased Power Total	3,055	1,922	2,992	3,145	153	5.1%
Tele/Other Utilities						
66101 - WATER	206	62	310	335	25	8.1%
66111 - TELEPHONE LINES	191	-	1,152	-	(1,152)	-100.0%
66112 - DATA LINES	483	20	540	-	(540)	-100.0%
66113 - CELLULAR PHONES	2,094	613	1,628	2,352	724	44.5%
66114 - PAGERS	-	51	-	-	-	n/a
Tele/Other Utilities Total	2,974	746	3,630	2,687	(943)	-26.0%
Transportation						
66501 - TRANSPORTATION - INTERNAL	17,024	7,558	19,027	15,728	(3,299)	-17.3%
665019 - TRANS INTERNAL INACTIVE	21,999	12,068	20,755	21,865	1,110	5.3%
66502 - TRANSPORTATION - EXTERNAL	20	-	-	-	-	-
66503 - MILEAGE REIMBURSEMENT	8,900	3,942	9,150	9,300	150	1.6%
Transportation Total	47,943	23,568	48,932	46,893	(2,039)	-4.2%
Grand Total	1,878,467	939,991	1,947,919	2,063,638	115,719	5.9%

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

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$552,846	\$272,955	\$556,907	\$584,078	\$27,171	4.9%
Employee Benefits	259,981	144,301	288,139	293,096	4,957	1.7%
Contracted Services	58,465	18,976	60,836	59,526	-1,310	-2.2%
Heat/Fuel Oil	9,838	4,117	12,700	12,700	0	0.0%
Insurance	2,340	1,165	2,323	4,330	2,007	86.4%
Materials & Supplies	24,820	6,623	27,225	29,488	2,263	8.3%
Other Expense	76,865	19,859	88,245	91,495	3,250	3.7%
Purchased Power	3,055	1,922	2,992	3,145	153	5.1%
Tele/Other Utilities	2,974	695	3,630	2,687	-943	-26.0%
Transportation	41,267	20,390	42,686	40,699	-1,987	-4.7%
Grand Total	1,032,451	491,003	1,085,683	1,121,244	35,561	3.3%
Programs:						
28 - Monitoring	111,422	35,738	138,141	140,733	2,592	1.9%
41 - Pretreatment	1,850	525	1,962	2,010	48	2.4%
56 - Tech Ops Support	41,168	17,708	49,419	49,545	126	0.3%
78 - Education	109,023	47,040	113,728	121,691	7,963	7.0%
82 - Lake Security - Land	157,265	75,784	140,839	142,336	1,497	1.1%
83 - Customer Outreach	144,262	67,157	128,871	149,158	20,287	15.7%
84 - Lake Security - Water	21,028	7,992	43,799	47,270	3,471	7.9%
98 - Training	33,470	24,244	44,029	41,170	-2,859	-6.5%
99 - Administration	412,963	214,815	424,895	427,331	2,436	0.6%
Grand Total	1,032,451	491,003	1,085,683	1,121,244	35,561	3.3%
Funds:						
10 - General	261,244	144,381	273,470	272,852	-618	-0.2%
20 - Water General	769,357	346,097	810,251	846,382	36,131	4.5%
57 - WW Portland	771	132	654	670	16	2.4%
61 - WW Gorham	251	132	654	670	16	2.4%
62 - WW Westbrook	828	261	654	670	16	2.4%
Grand Total	1,032,451	491,003	1,085,683	1,121,244	35,561	3.3%
Headcount:						
Full-Time	8	8	8	8	0	0.0%
Part-Time	1	1	1	1	0	0.0%
Total	9	9	9	9	0	0.0%

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

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$426,885	\$211,418	\$422,537	\$466,878	\$44,341	10.5%
Employee Benefits	203,019	108,608	217,310	242,828	25,518	11.7%
Chemicals	4,817	1,444	4,210	5,100	890	21.1%
Contracted Services	60,819	22,472	51,440	56,310	4,870	9.5%
Heat/Fuel Oil	794	335	900	0	-900	-100.0%
Materials & Supplies	65,308	57,931	84,163	84,650	487	0.6%
Other Expense	77,698	43,551	75,430	80,434	5,004	6.6%
Tele/Other Utilities	0	51	0	0	0	n/a
Transportation	6,676	3,178	6,246	6,194	-52	-0.8%
Grand Total	846,016	448,988	862,236	942,394	80,158	9.3%
Programs:						
28 - Monitoring	14	0	0	0	0	n/a
41 - Pretreatment	71,929	33,460	71,250	140,910	69,660	97.8%
56 - Tech Ops Support	79,669	42,768	80,301	77,396	-2,905	-3.6%
63 - Sample Analysis	371,181	192,321	398,063	397,020	-1,043	-0.3%
78 - Education	161	0	623	635	12	1.9%
98 - Training	30,575	22,366	30,230	32,027	1,797	5.9%
99 - Administration	292,487	158,073	281,769	294,406	12,637	4.5%
Grand Total	846,016	448,988	862,236	942,394	80,158	9.3%
Funds:						
10 - General	261,335	143,704	225,574	233,870	8,296	3.7%
20 - Water General	250,906	131,154	257,998	263,555	5,557	2.2%
50 - Wastewater General	228,145	109,247	275,499	269,732	-5,767	-2.1%
51 - WW Cape Elizabeth	5,303	757	1,900	3,867	1,967	103.5%
57 - WW Portland	52,236	43,466	56,311	122,733	66,422	118.0%
61 - WW Gorham	5,619	3,563	5,012	4,679	-333	-6.6%
62 - WW Westbrook	28,580	11,170	29,228	29,668	440	1.5%
64 - WW Joint Westbrook	12,684	3,523	7,002	10,849	3,847	54.9%
66 - WW Peaks Island	1,208	2,404	3,712	3,441	-271	-7.3%
Grand Total	846,016	448,988	862,236	942,394	80,158	9.3%
Headcount:						
Full-Time	7	7	7	8	1	14.3%
Part-Time	0	0	0	0	0	n/a
Total	7	7	7	8	1	14.3%

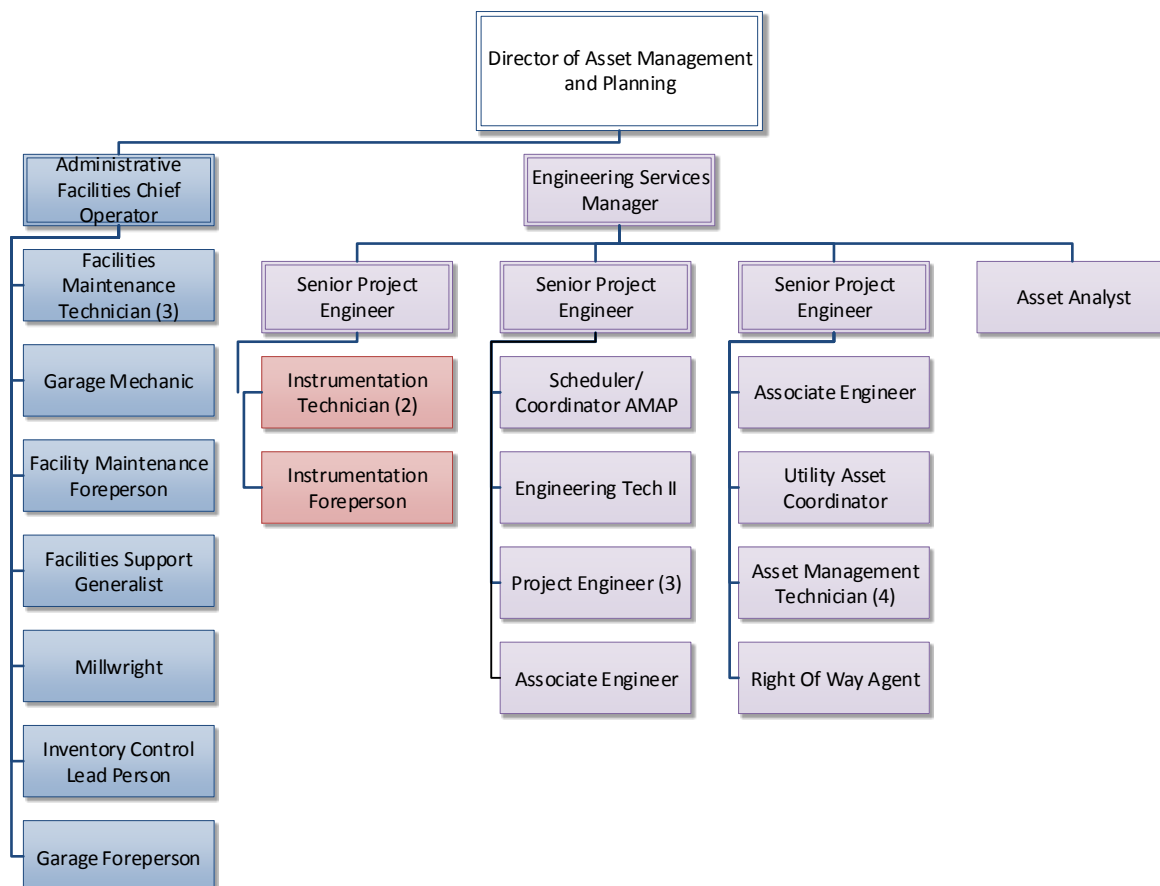
Engineering Services - Purpose Statement

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

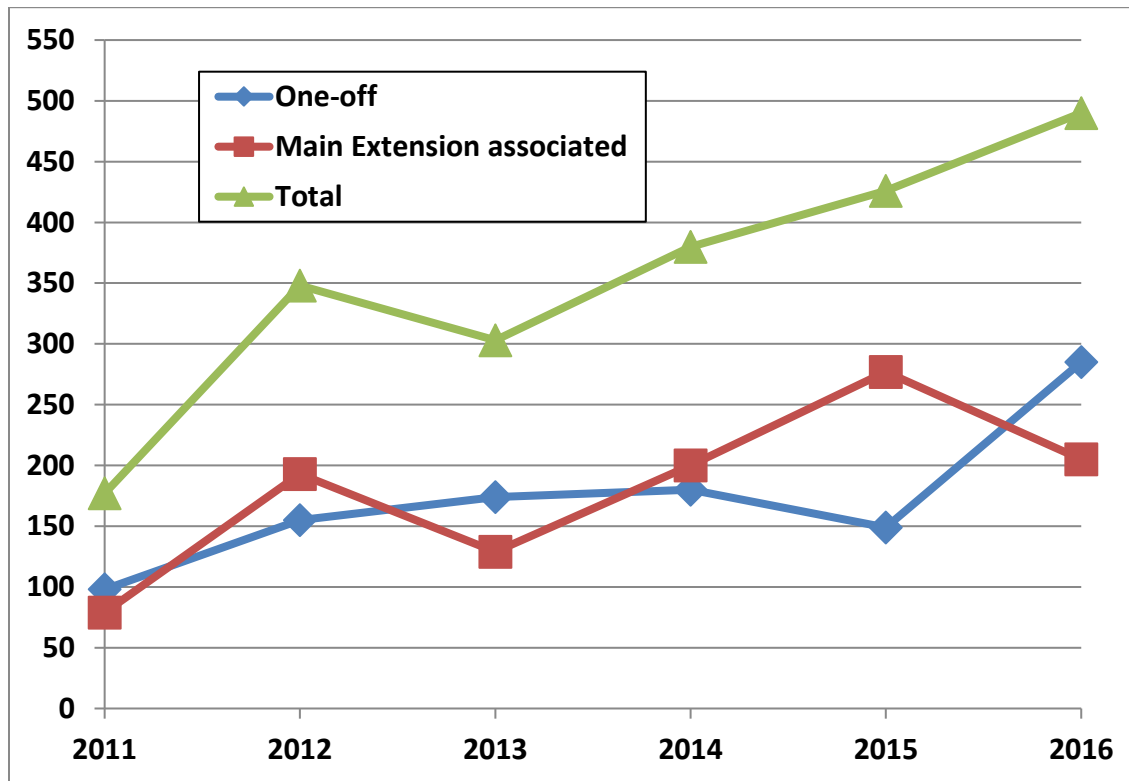
Engineering Services is responsible for providing engineering and maintenance services to internal and external customers. They are responsible for the following services:

- 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	1,310
Equipment/Components	10,477
Vehicles/Heavy Equipment	110
Water Service Association Assets (meters, backflows, etc.)	215,165
Water Field Assets	47,335
Sewer Field Assets	6,843
Total Assets	281,502

Performance Benchmarks

Corporate Goal – Reliability

Leaks per 100 miles of main

2016 Actual

10.3

2017 Budget

<20

2018 Budget

<20

Main Renewals, feet

19,250

30,000

28,000

Main Extensions, feet

22,500

25,000

25,000

Corporate Goal - Affordability

New Water Services

490

450

500

Corporate Goal – Employees and Work Environment

Employee Training Hours

61

80

80

Past Accomplishments

- Managed design/installation of >3.5 miles of water main renewals and >4 miles of extensions.
- Oversaw design and construction of projects at EEWTF (Aeration Upgrade), Fore River PS, Dana Court PS, Small pump station upgrade program and Wards Hill (Water Booster PS).
- Managed studies at CEWWTF (Oxidation Ditch/Clarifier Study), Wastewater Facility HVAC Study.
- Managed design and construction of water main replacement program.
- Worked with wastewater operations staff to improve asset data and AIM understanding.
- Managed facilities projects across District including: Douglass St Office heating fuel change out, roof and third floor wall replacement, Shore Acres Tank Site/SCADA work., Ecology Center renovations and Fore River Pump Station roof replacement.
- A number of employee suggestions were acted on in 2017 including:
 - Purchase additional instrumentation equipment to enhance capabilities.
 - Removal of trees near Liquid Oxygen (LOX) storage facility to reduce risk of damage.
 - Retaining the Millwright position in the Facilities Group to maintain internal capabilities.

2018 Projects and Initiatives

Corporate Goal – Public Health

- Continue lead/support role of design and construction of EEWTF aeration upgrade project.
- Review snow plowing protocol to ensure facilities properly plowed.(Employee suggestion)
- Propose additional Asset Management Tech position to address Service Associated asset documentation (Employee suggestion)

Corporate Goals – Reliability and Affordability

- Manage and support wastewater vertical asset upgrade projects (SLWTF Intake facilities, Throttling facility, Steep Falls facility, Windham Water Storage Tank, EEWTF, Dana Court PS, Fore River PS Phil, etc. – Includes Employee suggestions).
- Improve water main replacement programs and manage design and delivery of projects.
- Support improvements in wastewater project scoping to enable enhanced capital planning.
- Work with Wastewater and Water Ops, and Environmental Services to improve AIM data.
- Lead and support improvements in vertical asset data standards.
- Manage facilities projects around District including Douglass St HVAC master plan, Nixon Room HVAC upgrade and wall replacement, EEWTF repaving and various security projects.
- Provide core support of asset management and Asset implementation of ABC project.
- Review potential for unattended operation of Douglass St facility (Employee suggestion).
- Improve energy efficiency of Douglass St facility (Employee suggestion).

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.

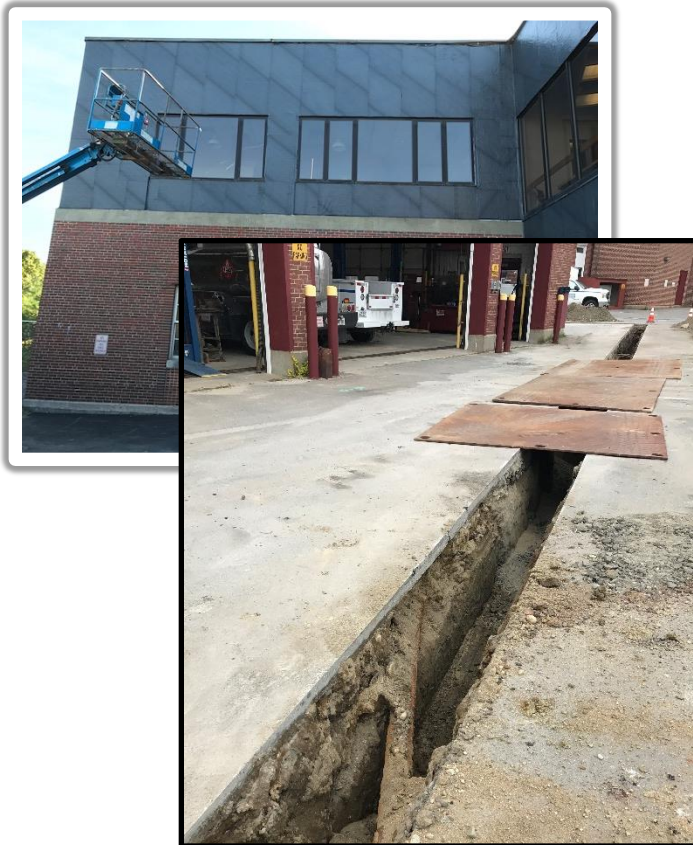
2017 Highlights



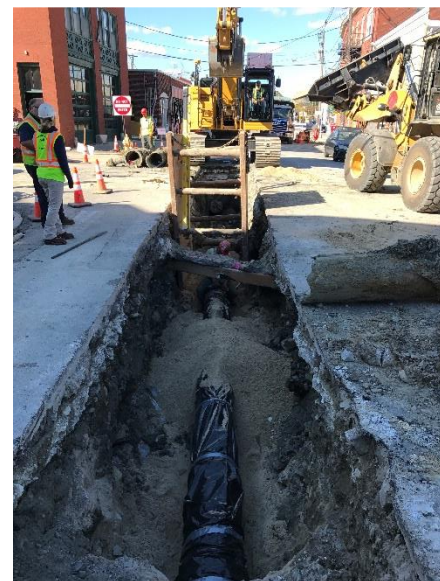
Successfully managed EEWTF Aeration Upgrade project including accelerated schedule and teaming with wastewater operations.



Successfully managed site restoration and SCADA repeater relocation at Shore Acres Tank



Continue improvements to Douglass Street facility including Third Floor wall replacement and installation of natural gas boiler feed.

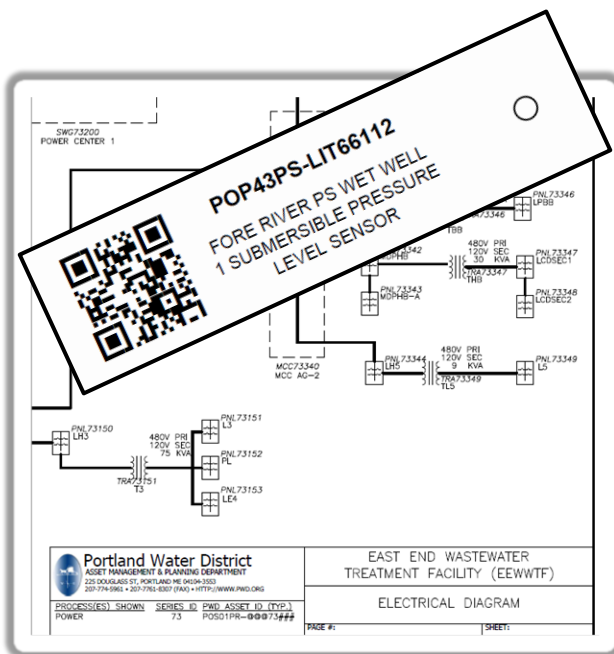


Successfully partnered with Municipalities and Developers to deliver water main replacement program through District

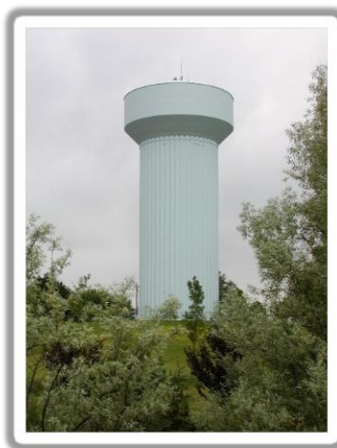
2018 Projects and Initiatives



Evaluate and design alternate UV disinfection system for CEWWTF



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



Land Acquisition/
Design for
Consolidated Elev.
407 Storage tank -
Windham



Continue improvements to Douglass St facility including HVAC and roof upgrades



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

Financial Overview

The Engineering Services 2018 budget request is \$4,198,336 which is \$93,604 or 2.3% 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 \$32,636 or 1.6% primarily to lower projected costs associated with fuels and maintenance services.

Asset Engineering's budget increases by \$222,630 or 13.8%, reflecting the addition of an Asset Management Tech position and the transfer of a position from Instrumentation to Engineering related to reflecting Salaries/Wages/Benefits increases.

Instrumentations' budget decrease is \$96,360 or 21.5% lower due to a Salaries/Wages/Benefits decrease related to a position transfer.

Significant Expense Type changes in 2018 are listed below:

Salaries, Wages and Employee Benefits

The addition of an Asset Management Technician is proposed for 2018. Additionally, a position was transferred from E7 to E2

Contracted Services

The line item includes a decrease of \$8,797 to reflect maintenance cost trends related to facility maintenance.

Heat/Fuel Oil

This category was reduced 31% to \$65,500 primarily due to the change of fuel source for Douglass Street from heating oil to pipeline delivered propane.

Purchased Power

The line item includes an decrease of \$12,856 to reflect current electricity unit prices and anticipated consumption.

Transportation

The line item includes an increase in internal transportation costs (active and inactive) of \$13,211 primarily due to active/inactive cost allocation.

Engineering Services – Total**Financial Summary**

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
C1 - Facilities Services	\$1,959,148	\$894,604	\$2,045,771	\$2,013,135	-\$32,636	-1.6%
E2 - Asset Engineering	1,436,517	809,086	1,609,910	1,832,540	222,630	13.8%
E7 - Instrumentation	324,123	156,351	449,051	352,661	-96,390	-21.5%
Grand Total	3,719,788	1,860,041	4,104,732	4,198,336	93,604	2.3%
Expense Type:						
Salaries & Wages	\$1,623,266	\$857,533	\$1,820,920	\$1,922,530	\$101,610	5.6%
Employee Benefits	844,089	463,948	982,611	1,016,581	33,970	3.5%
Contracted Services	350,075	185,650	502,660	493,863	-8,797	-1.8%
Deferred Cost W/O	14,400	7,200	14,400	14,400	0	0.0%
Heat/Fuel Oil	91,336	50,820	95,512	65,500	-30,012	-31.4%
Insurance	42,338	21,071	40,934	43,378	2,444	6.0%
Materials & Supplies	610,182	204,820	506,903	499,239	-7,664	-1.5%
Other Expense	-114,679	-60,750	-116,900	-111,650	5,250	-4.5%
Purchased Power	71,806	40,447	83,772	70,916	-12,856	-15.3%
Tele/Other Utilities	83,824	35,956	84,973	81,421	-3,552	-4.2%
Transportation	103,151	53,346	88,947	102,158	13,211	14.9%
Grand Total	3,719,788	1,860,041	4,104,732	4,198,336	93,604	2.3%
Headcount:						
Full Time	30	30	30	31	1	3.3%
Part Time	0	0	0	0	0	n/a
Total	30	30	30	31	1	3.3%

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$867,061	\$473,715	\$1,016,712	\$1,038,876	\$22,164	2.2%
660121 - WAGES/REGULAR UNION	737,656	358,537	751,604	829,449	77,845	10.4%
660122 - WAGES/OVERTIME UNION	5,655	7,964	11,254	9,363	(1,891)	-16.8%
660123 - WAGES/DOUBLETIME UNION	-	236	1,471	398	(1,073)	-72.9%
660124 - WAGES/STANDBY TIME UNION	120	1,550	790	764	(26)	-3.3%
660131 - WAGES - REGULAR - TEMPS	9,248	15,493	39,089	43,680	4,591	11.7%
660132 - WAGES - OVERTIME- TEMPS	49	38	-	-	-	n/a
66014 - VACATION ACCRUAL	3,477	-	-	-	-	
Salaries & Wages Total	1,623,266	857,533	1,820,920	1,922,530	101,610	5.6%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	121,722	65,318	139,300	147,070	7,770	5.6%
660405 - SAFETY/WHY PROGRAM ITEMS	5,305	1,331	7,250	6,490	(760)	-10.5%
660411 - MEALS ALLOWANCE	20	-	100	100	-	0.0%
660418 - STIPENDS	2,600	2,300	2,200	2,300	100	4.5%
660419 - EMPLOYEE BENEFITS-MISC OTH	8,408	1,625	-	5,860	5,860	n/a
660491 - EE BENEFITS-REG/SAL	706,034	393,374	833,761	854,761	21,000	2.5%
Employee Benefits Total	844,089	463,948	982,611	1,016,581	33,970	3.5%
Contracted Services						
6631 - ENGINEERING SERVICES	(15,215)	3,902	5,000	5,000	-	0.0%
6635221 - PAVING - MINOR REPAIR	1,232	-	-	-	-	
663524 - STREET OPENING	2,034	-	-	-	-	
663525 - CONTRACTOR CONSTRUCTION	975	400	-	-	-	n/a
66353 - REPAIR SERVICES	7,560	995	15,000	16,000	1,000	6.7%
66354 - MAINTENANCE SERVICES	202,814	94,662	271,400	262,200	(9,200)	-3.4%
663543 - CSO FLOW MONITORING	13,945	-	-	-	-	
663546 - MAINTENANCE - SNOW REMOVL	8,812	9,582	22,000	22,000	-	0.0%
663561 - COMPUTER LICENSES	26,636	24,229	28,950	28,203	(747)	-2.6%
663563 - COMPUTER CONSULTING/OTHER	394	-	1,200	1,200	-	0.0%
663574 - DISPOSAL SERVICES	12,662	3,851	23,500	23,500	-	0.0%
663587 - COURIER SERVICES	8,753	4,403	8,860	8,760	(100)	-1.1%
663588 - EQUIPMENT MAINTENANCE	-	-	5,250	5,500	250	4.8%
663589 - SECURITY SERVICES	75,727	39,605	84,000	84,000	-	0.0%
6635985 - VEHICLE FLEET GPS SERVICE	-	-	30,000	30,000	-	0.0%
663599 - MISC OTHER SERVICES	721	3,500	2,500	2,500	-	0.0%
6636 - TECHNICAL SERVICES	593	240	5,000	5,000	-	0.0%
663526 - INSPECTION SERVICES	2,432	281	-	-	-	n/a
Contracted Services Total	350,075	185,650	502,660	493,863	(8,797)	-1.8%
Deferred Cost W/O						
66754 - DEFERRED COSTS WRITE OFF	14,400	7,200	14,400	14,400	-	0.0%
Deferred Cost W/O Total	14,400	7,200	14,400	14,400	-	0.0%
Heat/Fuel Oil						
66161 - HEATING OIL	79,780	44,912	77,520	-	(77,520)	-100.0%
661621 - PIPELINE DELIVERED PROPAN	1,616	554	1,992	49,000	47,008	2359.8%
66166 - UNLEADED GAS	9,940	5,354	16,000	16,500	500	3.1%
Heat/Fuel Oil Total	91,336	50,820	95,512	65,500	(30,012)	-31.4%

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Insurance						
6656 - VEHICAL INSURANCE	\$29,111	\$15,009	\$28,980	\$31,306	\$2,326	8.0%
66561 - VEHICAL INSURANCE REIMBUR	1,244	26	-	-	-	n/a
66593 - UMBRELLA INSURANCE COVER	5,478	2,855	5,402	5,710	308	5.7%
66599 - PROPERTY & BOILER INSUR	6,505	3,181	6,552	6,362	(190)	-2.9%
Insurance Total	42,338	21,071	40,934	43,378	2,444	6.0%
Materials & Supplies						
6619 - ASSET PURCHASES	30,839	9,200	46,250	46,250	-	0.0%
66202 - TOOLS	6,719	2,084	9,000	10,500	1,500	16.7%
66203 - VENDOR PURCHASED SUPPLIES	181,002	116,456	190,150	196,700	6,550	3.4%
662041 - MATERIALS INVENTORY	133,518	(11,730)	8,850	8,850	-	0.0%
662042 - SUPPLIES INVENTORY	13,132	8,538	20,050	20,150	100	0.5%
66204205 - INVENTORY - LOAM	68	-	-	-	-	-
662043 - TOOL INVENTORY	4,022	5,907	11,050	11,050	-	0.0%
66204301 - INVENTORY - TONER	161	1,928	-	-	-	n/a
66204302 - INVENTORY - PAPER	843	154	500	500	-	0.0%
66204303 - INVENTORY - COMPUTER EQUIP	3,754	1,877	3,913	3,913	-	0.0%
662044 - METER INVENTORY	(21,325)	(35,796)	-	-	-	n/a
662046 - HYDRANT INVENTORY	72	1,844	-	-	-	n/a
662047 - GARAGE INVENTORY	13,504	7,067	10,475	10,475	-	0.0%
66204701 - INVENTORY - UNLEADED GAS	147,587	66,519	110,580	103,125	(7,455)	-6.7%
66204702 - INVENTORY - DIESEL	64,119	23,574	60,610	45,738	(14,872)	-24.5%
66204703 - INVENTORY - TIRES	19,857	2,060	15,000	15,000	-	0.0%
66205 - CONSUMABLE SUPPLIES	1,400	421	3,400	3,400	-	0.0%
66206 - COMPUTER RELATED EQUIP	10,910	4,717	17,075	23,588	6,513	38.1%
Materials & Supplies Total	610,182	204,820	506,903	499,239	(7,664)	-1.5%
Other Expense						
6642 - EQUIPMENT RENT	1,126	1,399	2,500	2,500	-	0.0%
66609 - OTHER ADVERTISING	1,173	-	-	-	-	-
667511 - TRAINING & CONFERNCES	-	960	-	-	-	n/a
6675111 - INSTATE TRAINING/CONF	16,400	10,073	21,500	21,500	-	0.0%
6675112 - OUT OF STATE TRAINING/CON	2,495	4,110	6,100	8,100	2,000	32.8%
6675121 - IN STATE CONFERENCES	658	12	-	-	-	n/a
6675122 - OUT-OF-STATE CONFERENCES	2,885	560	-	-	-	n/a
667513 - DUES	2,053	751	2,850	2,850	-	0.0%
667514 - PROFESSIONAL LICENSES	1,577	330	3,650	4,100	450	12.3%
667515 - PERIODICAL SUBSCRIPTIONS	-	-	550	800	250	45.5%
667516 - PERMITS	1,200	1,174	2,500	2,000	(500)	-20.0%
667522 - POSTAGE - INTERNAL	482	72	400	400	-	0.0%
667523 - POSTAGE - EXPRESS DELIVER	1,197	583	1,050	1,500	450	42.9%
667552 - SAFETY TRAINING	337	295	500	500	-	0.0%
667555 - SAFETY EXPENSES	432	-	1,500	2,000	500	33.3%
667556 - FREIGHT CHARGES (STOCK)	7,034	(551)	6,500	8,000	1,500	23.1%
667592 - FOOD SUPPLIES	-	449	50	50	-	0.0%
667599 - OTHER MISCELLANEOUS	8,419	1,970	550	550	-	0.0%
6676 - EXPENSE OFFSET	(162,147)	(82,937)	(167,100)	(166,500)	600	-0.4%
Other Expense Total	(114,679)	(60,750)	(116,900)	(111,650)	5,250	-4.5%

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Purchased Power						
66153 - POWER - MEDIUM ENERGY	\$45,070	\$26,512	\$53,089	\$44,467	(\$8,622)	-16.2%
66154 - POWER - MEDIUM T&D	24,207	12,421	27,525	23,748	(3,777)	-13.7%
66155 - POWER - SMALL ENERGY	1,410	807	1,666	1,360	(306)	-18.4%
66156 - POWER - SMALL T&D	1,119	707	1,492	1,341	(151)	-10.1%
Purchased Power Total	71,806	40,447	83,772	70,916	(12,856)	-15.3%
Tele/Other Utilities						
66101 - WATER	15,008	4,760	18,000	12,000	(6,000)	-33.3%
66103 - STORMWATER CHARGES	13,032	6,516	13,684	13,684	-	0.0%
66111 - TELEPHONE LINES	25,137	11,548	22,905	23,905	1,000	4.4%
66112 - DATA LINES	23,921	10,549	23,720	25,300	1,580	6.7%
66113 - CELLULAR PHONES	6,369	2,294	6,664	6,532	(132)	-2.0%
66114 - PAGERS	357	289	-	-	-	n/a
Tele/Other Utilities Total	83,824	35,956	84,973	81,421	(3,552)	-4.2%
Transportation						
66501 - TRANSPORTATION - INTERNAL	43,635	19,554	43,356	39,056	(4,300)	-9.9%
665019 - TRANS INTERNAL INACTIVE	56,097	32,250	38,391	56,402	18,011	46.9%
66502 - TRANSPORTATION - EXTERNAL	1,371	597	3,250	3,250	-	0.0%
66503 - MILEAGE REIMBURSEMENT	2,035	905	3,950	3,450	(500)	-12.7%
66504 - MTA TRANS-PASS TOLL FEES	13	40	-	-	-	n/a
Transportation Total	103,151	53,346	88,947	102,158	13,211	14.9%
Grand Total	3,719,788	1,860,041	4,104,732	4,198,336	93,604	2.3%

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

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$475,649	\$239,386	\$506,688	\$520,074	\$13,386	2.6%
Employee Benefits	245,002	126,662	271,053	273,800	2,747	1.0%
Contracted Services	330,338	153,338	465,010	456,960	-8,050	-1.7%
Heat/Fuel Oil	91,336	50,820	95,512	65,500	-30,012	-31.4%
Insurance	42,338	21,071	40,934	43,378	2,444	6.0%
Materials & Supplies	584,287	208,493	467,753	454,526	-13,227	-2.8%
Other Expense	-7,313	-3,957	-1,800	2,450	4,250	-236.1%
Purchased Power	71,806	40,447	83,772	70,916	-12,856	-15.3%
Tele/Other Utilities	72,895	32,560	74,269	70,129	-4,140	-5.6%
Transportation	52,810	25,784	42,580	55,402	12,822	30.1%
Grand Total	1,959,148	894,604	2,045,771	2,013,135	-32,636	-1.6%
Programs:						
23 - Stockroom Operations	98,039	26,203	130,653	123,039	-7,614	-5.8%
24 - Distribution Operations	58,069	35,849	55,378	55,933	555	1.0%
30 - Maintenance	218,037	97,974	234,439	239,279	4,840	2.1%
55 - Prof Ops Support	74,169	38,812	64,046	79,676	15,630	24.4%
90 - Vehicles	582,028	304,031	631,469	623,787	-7,682	-1.2%
93 - Stockroom Scrap	140,554	0	250	250	0	0.0%
95 - Douglass Street	629,529	304,912	758,829	699,855	-58,974	-7.8%
98 - Training	40,440	29,359	38,916	41,301	2,385	6.1%
99 - Administration	118,283	57,464	131,791	150,015	18,224	13.8%
Grand Total	1,959,148	894,604	2,045,771	2,013,135	-32,636	-1.6%
Funds:						
10 - General	1,370,226	695,766	1,561,005	1,514,958	-46,047	-2.9%
20 - Water General	498,529	154,339	341,505	359,065	17,560	5.1%
30 - Water Standish	1,438	846	4,514	4,508	-6	-0.1%
51 - WW Cape Elizabeth	23,541	7,098	24,648	26,553	1,905	7.7%
53 - WW Cumberland	5,384	2,195	9,387	9,124	-263	-2.8%
55 - WW Windham LF	779	458	0	0	0	n/a
57 - WW Portland	30,298	12,216	77,538	67,844	-9,694	-12.5%
61 - WW Gorham	8,089	4,855	7,991	7,495	-496	-6.2%
62 - WW Westbrook	4,097	2,249	4,080	4,419	339	8.3%
64 - WW Joint Westbrook	9,549	4,230	11,484	10,767	-717	-6.2%
65 - WW Joint LF	2,081	1,199	1,220	3,488	2,268	185.9%
66 - WW Peaks Island	5,137	9,153	2,399	4,914	2,515	104.8%
Grand Total	1,959,148	894,604	2,045,771	2,013,135	-32,636	-1.6%
Headcount:						
Full-Time	10	10	10	10	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	10	10	10	10	0	0.0%

Engineering Services - Asset Engineering Services (E2)

Financial Summary

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$981,500	\$540,838	\$1,079,871	\$1,229,809	\$149,938	13.9%
Employee Benefits	514,468	296,266	584,211	651,346	67,135	11.5%
Contracted Services	-8,014	8,282	10,450	10,450	0	0.0%
Deferred Cost W/O	14,400	7,200	14,400	14,400	0	0.0%
Materials & Supplies	19,841	-3,229	16,825	19,150	2,325	13.8%
Other Expense	-119,875	-57,560	-125,650	-124,650	1,000	-0.8%
Tele/Other Utilities	7,934	2,062	7,924	7,800	-124	-1.6%
Transportation	26,263	15,227	21,879	24,235	2,356	10.8%
Grand Total	1,436,517	809,086	1,609,910	1,832,540	222,630	13.8%
Programs:						
57 - Means Coordination	356,086	205,826	392,060	379,911	-12,149	-3.1%
79 - Amap Services	335,139	207,542	429,558	551,077	121,519	28.3%
94 - Technology Teams	132,778	70,624	222,806	289,946	67,140	30.1%
98 - Training	66,500	51,803	76,767	88,225	11,458	14.9%
99 - Administration	546,014	273,291	488,719	523,381	34,662	7.1%
Grand Total	1,436,517	809,086	1,609,910	1,832,540	222,630	13.8%
Funds:						
10 - General	623,552	337,436	709,448	805,670	96,222	13.6%
20 - Water General	613,771	382,383	639,992	738,963	98,971	15.5%
50 - Wastewater General	45,416	18,693	245,827	273,396	27,569	11.2%
51 - WW Cape Elizabeth	20,242	9,117	0	0	0	n/a
53 - WW Cumberland	4,637	2,869	0	0	0	n/a
55 - WW Windham LF	2,227	3,200	0	0	0	n/a
57 - WW Portland	86,675	36,972	243	111	-132	-54.3%
61 - WW Gorham	3,212	3,537	0	0	0	n/a
62 - WW Westbrook	21,971	10,715	14,400	14,400	0	0.0%
64 - WW Joint Westbrook	14,139	1,879	0	0	0	n/a
66 - WW Peaks Island	675	2,285	0	0	0	n/a
Grand Total	1,436,517	809,086	1,609,910	1,832,540	222,630	13.8%
Headcount:						
Full-Time	16	16	16	18	2	12.5%
Part-Time	0	0	0	0	0	n/a
Total	16	16	16	18	2	12.5%
Total	17	16	16	18	-1	-5.9%

Engineering Services - Instrumentation Services (E7)**Financial Summary**

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$166,117	\$77,309	\$234,361	\$172,647	-\$61,714	-26.3%
Employee Benefits	84,619	41,020	127,347	91,435	-35,912	-28.2%
Contracted Services	27,751	24,030	27,200	26,453	-747	-2.7%
Materials & Supplies	6,054	-444	22,325	25,563	3,238	14.5%
Other Expense	12,509	767	10,550	10,550	0	0.0%
Tele/Other Utilities	2,995	1,334	2,780	3,492	712	25.6%
Transportation	24,078	12,335	24,488	22,521	-1,967	-8.0%
Grand Total	324,123	156,351	449,051	352,661	-96,390	-21.5%
Programs:						
81 - Instrumentation & Contr	202,468	92,148	274,351	220,950	-53,401	-19.5%
94 - Technology Teams	0	0	3,798	0	-3,798	-100.0%
98 - Training	25,247	5,235	23,375	19,633	-3,742	-16.0%
99 - Administration	96,408	58,968	147,527	112,078	-35,449	-24.0%
Grand Total	324,123	156,351	449,051	352,661	-96,390	-21.5%
Funds:						
10 - General	121,655	64,203	174,700	131,711	-42,989	-24.6%
20 - Water General	93,800	56,304	91,672	86,476	-5,196	-5.7%
50 - Wastewater General	11,280	9,131	110,389	70,216	-40,173	-36.4%
51 - WW Cape Elizabeth	18,956	3,281	450	450	0	0.0%
53 - WW Cumberland	4,812	685	900	900	0	0.0%
57 - WW Portland	46,569	16,042	69,140	61,108	-8,032	-11.6%
61 - WW Gorham	3,708	2,837	450	450	0	0.0%
62 - WW Westbrook	7,211	228	450	450	0	0.0%
64 - WW Joint Westbrook	13,054	2,203	500	500	0	0.0%
65 - WW Joint LF	394	152	0	0	0	n/a
66 - WW Peaks Island	2,684	1,285	400	400	0	0.0%
Grand Total	324,123	156,351	449,051	352,661	-96,390	-21.5%
Headcount:						
Full-Time	4	4	4	3	-1	-25.0%
Part-Time	0	0	0	0	0	n/a
Total	4	4	4	3	-1	-25.0%

Administrative Services - Purpose Statement

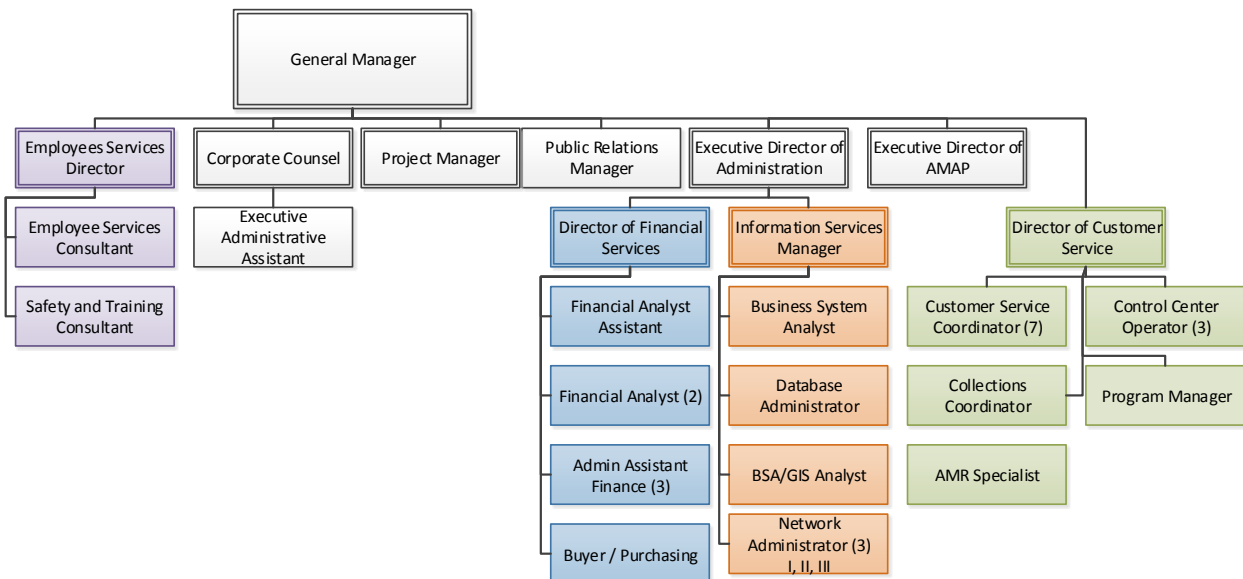
To provide support services to internal and external customers

Core Services

Administrative Services provides support services to internal and external customers by providing the following services:

- External customers' call center response and billing services (Customer Service Group- F1; green in the organization chart).
- Computer system and related technology support and maintenance services (Information Services Group – G1; orange in the organization chart).
- Financial transaction processing and information services (Financial Services Group – H1; blue in the organization chart).
- Employee development, benefits and management services (Employee Services Group – I1; purple in the organization chart).

The District has an eight-person group (Executive Group – J1; black in the organization chart) that directs, oversees and provides administrative support for the District. In 2018, an additional Customer Service Coordinator was added.



Past Accomplishments and 2018 Projects and Initiatives

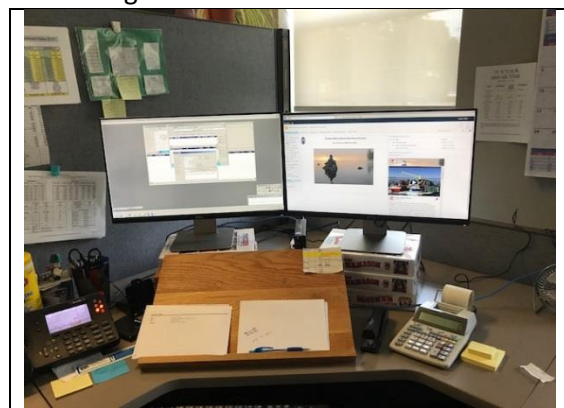
Customer Service

2017 Accomplishments

- Training: all three Control Center Operators were newer employees and were provided with additional training on office procedures, functions and field training..
- Submeter Process: Implementation of submeter sales by ALL municipalities effective May 1st 2017. Then, as requested by the municipalities, we took the sales of submeters back in house July 2017. We currently sell submeters for all the customers we serve here at PWD.
- Wastewater Billing Partner Visits: An invitation was sent to all the municipalities to have a meeting with the CS Manager to discuss every day issues and the new submeter program. Visits were made to all that wanted one (Portland, South Portland and Westbrook.)
- Rates: Changed and tested revised PWD water rates and sewer rates for Cape Elizabeth, Portland, South Portland and Falmouth.
- Large Meter Review: Continue collaboration with water operations in reviewing and addressing any large meters with issues with bi-monthly meetings. This has proven successful, as the number of outstanding large meter issues has significantly decreased since the start of this program.
- Sit/Stand Workstations: Successfully changed all workstations in the CS area to sit/stand stations. Numerous studies have proven varying between sitting and standing throughout the day increases overall health and wellness of employees.

2018 Projects and Initiatives

- Revised Rates: Change and test any revisions to water and sewer rates.
- Large Meter: Continue focusing on changing Large Meters with issues and work with Water Operation to implement a Large Meter Test Program.
- New Billing System: Customer Service personnel will have a role in supporting the new billing/asset system. Time and effort has not been determined but is expected to be significant. Employees suggested to the General Manager that additional overtime in the budget may be needed during the project. Additional hours were included in the budget.
- Dual Monitors: A suggestion made by an employee to the General Manager was to install dual monitors to all Customer Service Rep workstations in an effort to change the way we work reports. Currently the customer service department works 124 daily, 5 bi-weekly and 25 weekly reports on paper. Most of these reports average 1-4 pages in length. The Zero Use report that looks at all the meters that have come in reflecting no use for the month averages about 40 pages weekly. Having the reports electronic will decrease the volume of paper used, increase efficiency and provide easier monitoring and coverage of work.
- Back up for Collection Coordinator: Fully train a Customer Service Coordinator in the field collections process for delinquent customer accounts so we have back up coverage.
- Drinking Water Week: During the budget talks the general manager had with employees, it was requested that Customer Service have more involvement in the Drinking Water Week.



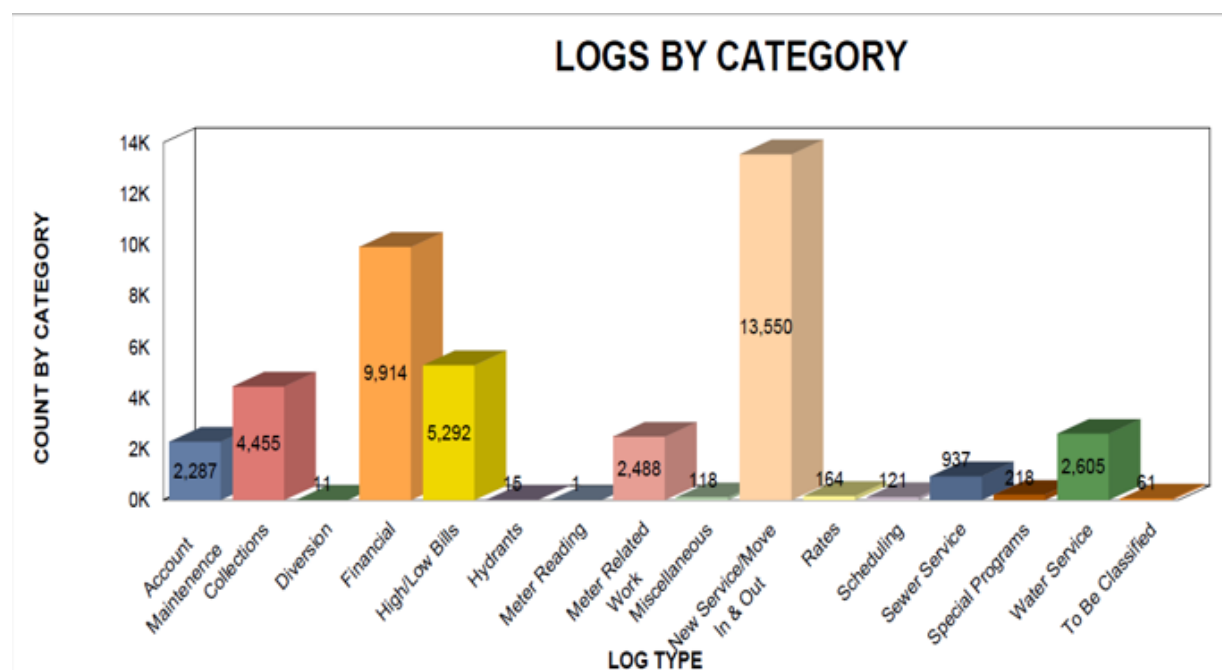
Customer Service (continued)

CS Department Key Statistics:

<u>Key Statistics</u>	<u>2015 Actual</u>	<u>2016 Actual</u>	<u>2017 Projected</u>	<u>2018 Goal</u>
Customers Served	54,300	54,700	55,100	55,500
Phone calls answered within 1 min	85%	88%	80%	82%
Customer Satisfaction	97%	97%	95%	95%
Actual vs Estimated Reads	99.60%	99.63%	99.00%	99.00%
Accurate Bill Index	99.96%	99.96%	99.85%	99.85%
Customer Contacts	51,923	54,753	50,500	50,500
Bills Produced	642,060	647,429	651,260	653,408

Customer Service – Customer Contacts

Customer Services handles over 54,000 customer contacts a year via phone, email and in person.



Past Accomplishments and 2018 Projects and Initiatives (continued)

Information Services

2017 Accomplishments

System upgrades:

- GIS system software was upgraded and installed on new server hardware.
- Upgrade of Microsoft Office from Office 2010 to Office 2016.
- Migrated 8 physical servers to virtual servers.
- Hansen System Replacement Evaluation support.
- SCADA system upgrades.
- Shoretel Phone System upgrade
- Field and remote site connectivity improvements.

Process Improvements:

- SharePoint workflows developed - Job Postings, Comp Time Request, Fixed Capital Approval Process, and Employee Action Center.
- Data Backup System Upgrade – backed up files are being sent off site nightly.

System Security

- Security Awareness Training – End-user Cyber Security training conducted throughout the year to raise awareness related to the topic.
- New data firewalls were installed into the network to increase our security posture.
- Network Security Audit conducted.
- Continued build out of cold site - As a backup to our data center at Douglass Street, we continued to build out our cold site at our Sebago Lake Treatment Plant.

2018 Projects and Initiatives

System upgrades:

- SharePoint upgrade - We will be upgrading our current SharePoint Intranet server from SharePoint 2010 to SharePoint 2016.
- Provide support for Hansen replacement project.
- Microsoft's 3-year contract renews in 2018. Explorer Office 365 options/pricing/feasibility.
- Continued migration of physical servers to virtual servers.
- Shoretel Phone System upgrade

Process Improvements:

- Begin to look at document management solutions and determine feasibility of implementing.
- Develop additional digital workflows to replace paper-based processes.
- Implement additional system monitoring
- Conference Room Upgrades

Past Accomplishments and 2018 Projects and Initiatives (continued)

Information Services (continued)

System Security

- Security Awareness Training – Continue End-user Cyber Security training throughout the year to raise awareness related to the topic.
- Network Security Audit
- Continued build out of cold site - As a backup to our data center at Douglass Street, we will continue to build out our cold site at our Sebago Lake Treatment Plant.

Training

- PWD IS Department Overview sessions – We will be conducting several sessions for employees to understand what the Information Services does on a daily basis
- Continued Information Services inter-departmental cross training.
- Technical training for Information Services staff.

IS Department Key Statistics:

Devices Maintained:

Devices Maintained:

Device Type	2016	2017	2018
Servers	33	28	20
Virtual Servers	43	58	50
Laptops	56	56	55
CPU	22	28	25
Thin Clients	135	130	130
Firewall	3	6	7
Switches	38	30	25
Routers	4	5	5
Phone Switches	11	11	11
Desk Phones	170	170	168
Smart Phones	17	20	20
Printers/Scanner	27	27	26
Copiers	8	8	9
iPads	23	24	21
Total	590	601	572

Major Applications:

AutoCAD
 CallRex Call Recording
 Citrix Presentation Server and
 XenServer
 VMWare
 Crystal Reports
 ESRI GIS
 Hach WIMS
 Hansen Asset
 Management/Customer Relation
 Informix (1), Oracle (3) and SQL (1)
 databases
 Microsoft Office 2016
 Pentamotion Financial
 SharePoint Enterprise 2010
 ShoreTel IP Phone System
 Windows Server 2008

Past Accomplishments and 2018 Projects and Initiatives (continued)

Financial Services

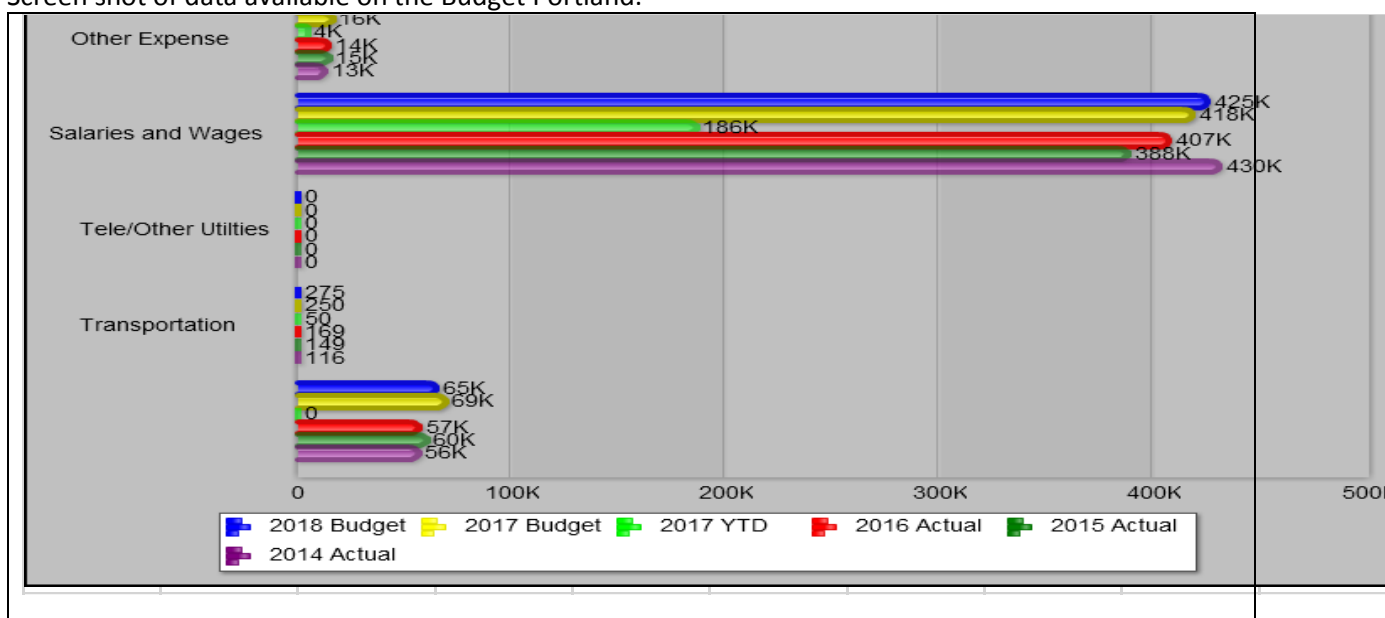
2017 Accomplishments

- Received Government Finance Officers Association's "Certificate of Achievement for Excellence in Financial Reporting" for the 2015 Comprehensive Annual Financial Report (CAFR) and the "Distinguished Budget Presentation Award" for the 2017 Comprehensive Budget Report for the seventh year in a row.
- Created a "budget portal" on SharePoint for the 2018 Operating Budget process, which provided the managers single location where all budget input forms, supporting data and budget results of each budget draft were available. In addition the area had "live" displays of data giving managers feedback on their budgets as well as note areas that allowed them (and Finance) to document significant assumptions regarding their budget changes.
- Enhanced the department's electronic bond expense tracking process (done using Access, Excel and Crystal reports) allowing for much more efficient bond tracking and fund drawdowns.

2018 Projects and Initiatives

- Create an online portal for the delivery of monthly financial information to the individual managers and the Senior Management Team (SMT).
- Support ABC project system upgrade in concert with the possible need to plan the upgrade/replacement of the Sungard/Pentamotion system.
- Continue to upgrade financial information provided to the Board of Trustees and management through more visual/graphical presentations of financial data.
- Continue review of best practices of financial systems as well as cross training the staff on the different responsibilities of the department as recent staff turnover has shifted responsibilities throughout the department.

Screen shot of data available on the Budget Portland:



Past Accomplishments and 2018 Projects and Initiatives (continued)

Employee Services

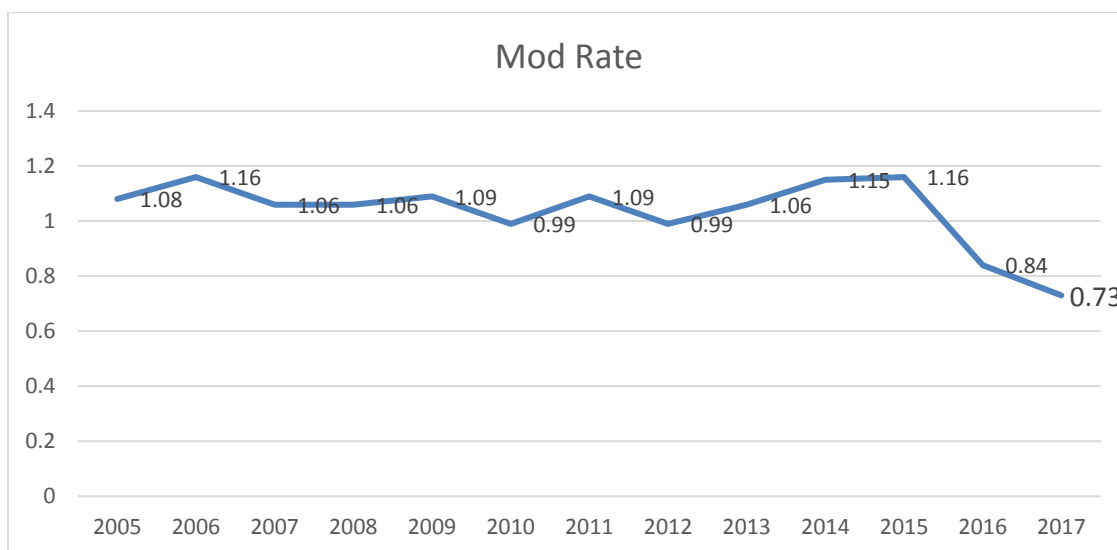
2017 Accomplishments

Compensation: Conducted bi-annual salary survey for non-union positions, resulting in updating the broadband salary structure for non-union employees effective January 1, 2017.

Retirement Planning:

- Group sessions were well attended and included “Shifting Gears: Considerations and Strategies for Pre-Retirees.”
- Individual sessions with the Principal Retirement Representative.
- Increased educational communication via multiple sources from emails with links to pertinent webinars to written memos are used as opportunities for retirement planning education.
- Effective 8/1/17, we achieved a significant reduction in both investment and recordkeeping fees on the 457 Plan. The average decrease is 19%, and based on the average retirement balance, participants will see an annual decrease in fees of approximately \$100 annually.

Worker’s Compensation: With pro-active monitoring of claims, including baseline examination of more injuries and thorough root cause investigations, our mod rate has again dropped to the lowest level in over a decade. Effective January 1, 2016 it dropped to .84, saving approximately \$60,000 annually in premiums. Effective January 1, 2017 it dropped again to .73, resulting in approximately another \$10,000 in annual premium reductions. Effective January 1, 2018, the mod rate will again drop to .68, savings of approximately \$4,000 more annually. The following is a recent history of the worker’s compensation experience mod rates for PWD:



Past Accomplishments and 2018 Projects and Initiatives (continued)

Employee Services (continued)

2017 Accomplishments (continued)

Health Plan:

We received a 9.9% increase in the health renewal effective 1/1/18, with no change in our plan design. Both union and non-union employee contributions toward single coverage increased to 7% for calendar year 2017, and will increase to 8% effective 1/1/18, which is still significantly lower than the national average of 17%.

A new 2017 Employee Satisfaction Survey was outsourced to Market Decisions Research. 80% of the employees participated. Some of the highlights of the resulting analysis include:

- 94% of employees agreed that the new General Manager is having a positive impact on PWD, with 78% agreeing strongly (80% of the Union employees agreeing strongly.)
- 94% of employees agreed that they have the materials and equipment to do their work safely, with 64% agreeing strongly (61% of Union employees agreeing strongly.)
- 97% agreed that they know how to perform their job safely (78% of Union employees agreeing strongly.)
- 98% responded that they would report any health or safety hazard and know who to report it to at PWD.
- 89% responded that they think the health benefits provided by PWD are as good as, or better than, other organizations.

A new three-month and six month probationary evaluation process and forms were designed to better monitor the progress of new hires and employees who transfer within PWD.

To provide employees more choice, new field uniform options will be available effective 1/1/18. These new choices are cost neutral to PWD.

Union:

- We hold monthly meetings with the Union stewards, and both the General Manager and the Director of Employee Services participate in these meetings;
- Arbitrations: We received a favorable decision for the arbitration held in 2016 on the termination of an employee. In September 2017, we arbitrated the interpretation of the contract pertaining to pay upgrades. We are waiting for the results of that arbitration. There is one grievance regarding the unpaid disciplinary suspension of an employee that may result in arbitration.

Past Accomplishments and 2018 Projects and Initiatives (continued)

Employee Services (continued)

2017 Accomplishments (continued)

Safety:

- Two union stewards have joined the Safety Committee and actively participate in the quarterly meetings.
- Through the work and suggestions of the Safety Committee we have distributed PWD “Safety Always” baseball caps to employees and have:
 - Created and distributed a PWD safety poster to encourage employees to report safety concerns;
 - Tick kits are kept in stock;
 - Introduced and stock new protective cut gloves;
 - Distributed whistles, as a result of concerns about the potential hazards of working in the field;
 - Added back up alarms to additional vehicles;
 - Pro-actively evaluated the workstations of employees who spend most of the day working on computers and cost effectively provided adjustable workstations where needed.
- Safety documentation and thorough investigations for vehicle accidents and workplace injuries are consistently completed. Across PWD, documentation for lock out tag out procedures continues. In Water, a pilot project in job hazard analysis has begun, as well as a Safety Awareness Campaign.
- A Safety Audit of Douglass Street was conducted in conjunction with MMA in May 2017 and all noted concerns remediated immediately.

2017 SAFETY REQUIRED TRAINING - PWD			
Topic	# Employees	Completed	Compliant
Confined Space	13	May 2017	100%
Haz Com/SDS Refresher	N/A	By Departments	N/A
VDT On-Line	53	Month of June/July	95%
Work Zone Traffic Safety	20	March- by Departments	
Respiratory Pro./Fit Testing	42	July 2017	99%
Fire Extinguishers	50	September 2017	
Gas Detectors	98	Month of Oct./Nov.	
Electrical/Arc Flash	21	April	
Safe Driving			
<i>Safety Awareness by Departments</i>			
Chains/Slings/Rigging	50	November 2017	

Past Accomplishments and 2018 Projects and Initiatives (continued)

Employee Services (continued)

2018 Projects and Initiatives

Wellness initiatives:

Flu shots, biometric screenings and diabetes awareness are some of the highlights of the successful annual wellness fair planned for October 2017. In addition, we will be exploring a comprehensive wellness program for 2018.

Supervisory Workshops:

A workshop on the topic of Reasonable Suspicion Drug and Alcohol Testing was held in 2017, as well as a supervisory roundtable discussion that included among other topics the new three and six month probationary evaluation process. In 2018, we will increase the number of workshops for supervisors by offering them bi-monthly.

Policies:

Employee Services will continue to be review and revise policies.

Retirement Planning:

Individual counseling sessions will continue, and in 2018 we will offer age specific retirement planning education to selected groups of employees.

Safety:

Safety Training for 2018 is scheduled to include:

- Hazard Communication
- Respiratory/Fit Protection
- Fire Extinguishers
- Gas Detectors
- VDT Training
- Forklifts
- First Aid/CPR
- Blood borne Pathogens
- Walking/Working Surfaces
- Ladders

Financial Overview

The Administrative Services budget request is \$5,637,880, which is \$178,346 or 3.3% higher than last year. The number of employees in the area is 42, 2 more than last year. An additional customer service coordinator is included in the 2017 Budget. One position was temporarily transferred to the Wastewater department in 2017 and transferred back in 2018.

Customer Service (F1) Group (\$1,528,752 request; \$105,726 or 7.4% higher)

- Salaries/Wages and Benefits: An additional Customer Service Coordinator was budget, which is partially offset by not hiring a summer-time temporary.
- Contracted Services: Reduced by \$188, or 0.1%. The contracts for billing printing and Digsafe assessment are the two biggest contracted services and are expected be flat between two years..
- Other Expenses increased by \$4,711 or 2.3% - Result of increasing estimated postage for mailing bills \$7,296 assuming a 1.5 cent effective January 1, 2018.

Information Service (G1) Group (\$995,865 request; \$881 or 0.1% higher)

- Salaries/Wages and Benefits: Same number of positions. Increase attributed to general pay increase offset partially by lower pay of newly hired staff.
- Contracted Services: Increased by \$5,000, or 2.5%. Contracts for computer hardware and service annual maintenance agreements including contracts for Microsoft office productivity , ESRI GIS and Shoretel phone systems support.
- Materials and Supplies: Reduced by \$2,500, or 7.7%, due mostly to decrease costs related to computer toners
- Other Expenses: Reduced by \$2,700, or 33.2%, due to lower out-of-state training- not attending national GMIS conference in 2018.

Financial Services (H1) Group (\$900,360 request; \$8,317 or 0.9% higher)

- Salaries/Wages and Benefits: No change in the number of positions
- Contracted Services: Increased by \$4,670, or 2.1%, due to expected 3% increase in computer system maintenance costs and the continued increase in the number on-line payments.
- Other Expenses: Decrease by \$1,610, or 10%, due to decreasing training expense budget.

Employee Service (I1) Group (\$488,722 request; \$45,125 or 10.2% higher)

- Salaries/Wages and Benefits: No change in the number of positions
- Contracted Services: Increased by \$44,000, or 57%, due to primarily to the higher amount for legal expenses in 2018. Additional amount relates to negotiating a new union contract in 2018 and higher estimate needed to address labor relation issues.
- Other Expenses: Decreased by \$4,400, or 19%, due to lowering the amount needed for the safety program related expenses to \$5,000 from \$10,000.

Executive (J1) Group (\$1,724,131 request; \$18,297 or 1.1% higher)

- Salaries/Wages and Benefits: No change in the number of positions.
- Materials and Supply: Increase due to equipment needed for the new Asset, Billing and Customer Relation software team.
- Other Expenses: Decrease due to removing costs related to hiring a new General Manager, partially offset by requesting to make a donation to Friends of Casco Bay.

Administrative Services: Combined**Financial Summary:**

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
F1 - Customer Service	\$1,432,377	\$689,689	\$1,423,026	\$1,528,752	\$105,726	7.4%
G1 - Information Services	936,525	451,617	994,984	995,865	881	0.1%
H1 - Financial Services	873,984	442,013	892,043	900,360	8,317	0.9%
I1 - Employee Services	465,715	210,543	443,647	488,772	45,125	10.2%
J1 - BOT & Senior Management	1,460,916	820,131	1,705,834	1,724,131	18,297	1.1%
Grand Total	5,169,517	2,613,993	5,459,534	5,637,880	178,346	3.3%
Expense Type:						
Salaries & Wages	\$2,464,195	\$1,229,453	\$2,601,297	\$2,701,447	\$100,150	3.9%
Employee Benefits	1,266,207	686,784	1,407,982	1,432,366	24,384	1.7%
Contracted Services	787,627	382,748	772,047	828,709	56,662	7.3%
Deferred Cost W/O	10,086	0	0	0	0	n/a
Insurance	89,273	46,122	88,353	89,262	909	1.0%
Materials & Supplies	60,998	40,709	59,191	69,890	10,699	18.1%
Other Expense	444,133	204,872	485,557	471,191	-14,366	-3.0%
Tele/Other Utilities	27,310	14,067	23,580	25,644	2,064	8.8%
Transportation	19,688	9,238	21,527	19,371	-2,156	-10.0%
Grand Total	5,169,517	2,613,993	5,459,534	5,637,880	178,346	3.3%
Headcount:						
Full Time	40	39	39	41	2	5.1%
Part Time	1	1	1	1	0	0.0%
Total	41	40	40	42	2	5.0%

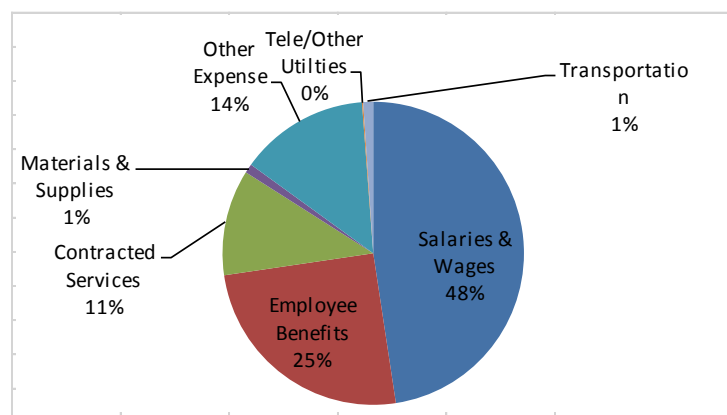
	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$1,805,983	\$919,514	\$1,924,355	\$1,965,009	\$40,654	2.1%
660121 - WAGES/REGULAR UNION	597,412	285,633	619,324	686,574	67,250	10.9%
660122 - WAGES/OVERTIME UNION	12,671	7,348	21,263	21,864	601	2.8%
660123 - WAGES/DOUBLETIME UNION	-	39	-	-	-	n/a
660131 - WAGES - REGULAR - TEMPS	5,601	4,131	-	-	-	n/a
660132 - WAGES - OVERTIME- TEMPS	54	-	-	-	-	-
660136 - CONTRACTED - TEMP	-	3,565	9,355	1,000	(8,355)	-89.3%
66014 - VACATION ACCRUAL	19,267	-	-	-	-	-
660141 - TRUSTEES COMPENSATION	23,075	9,050	27,000	27,000	-	0.0%
660112 - WAGES/OVERTIME NON-UNION	132	173	-	-	-	n/a
Salaries & Wages Total	2,464,195	1,229,453	2,601,297	2,701,447	100,150	3.9%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	185,115	96,349	198,284	206,587	8,303	4.2%
660405 - SAFETY/WHY PROGRAM ITEMS	5,491	1,337	6,275	5,990	(285)	-4.5%
660411 - MEALS ALLOWANCE	20	-	80	80	-	0.0%
660413 - PWD TRAINING PROGRAM	330	-	-	-	-	-
660418 - STIPENDS	200	200	200	200	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	10,041	5,737	3,800	6,410	2,610	68.7%
660491 - EE BENEFITS-REG/SAL	1,065,010	583,051	1,199,343	1,213,099	13,756	1.1%
660408 - PROGRAMS ADMINISTRATION	-	110	-	-	-	n/a
Employee Benefits Total	1,266,207	686,784	1,407,982	1,432,366	24,384	1.7%
Contracted Services						
662062 - PRINTER REPAIR	-	-	1,000	500	(500)	-50.0%
662063 - COPIER MAINTENANCE/TONER	16,544	6,534	11,500	13,000	1,500	13.0%
6632 - ACCOUNTING SERVICES	34,000	35,875	34,500	35,000	500	1.4%
66331 - LEGAL - LABOR RELATIONS	103,310	21,134	60,000	100,000	40,000	66.7%
66333 - BOND COUNSEL	7,500	-	7,500	7,500	-	0.0%
66339 - LEGAL - OTHER	26,690	35,814	34,500	34,500	-	0.0%
663545 - RADIO SERVICING AND EQUIP	6,336	471	4,000	3,000	(1,000)	-25.0%
663561 - COMPUTER LICENSES	6,223	2,671	4,000	4,500	500	12.5%
663562 - COMPUTER MAINTAINENCE	179,245	97,175	216,571	223,275	6,704	3.1%
663563 - COMPUTER CONSULTING/OTHER	22,391	536	20,000	20,000	-	0.0%
6635801 - EMPLOYEE HEALTH SERVICES	7,623	8,355	6,000	10,000	4,000	66.7%
663581 - UTILITY BILLING PRINTING	72,872	50,148	78,721	79,504	783	1.0%
663582 - PAYMENT PROCESSING	143,603	63,215	139,300	142,000	2,700	1.9%
663583 - RECEIVABLE COLLECTIONS	6,789	2,787	10,000	9,000	(1,000)	-10.0%
663584 - BANK SERVICE CHARGES	21,608	11,058	20,400	21,600	1,200	5.9%
663587 - COURIER SERVICES	4,392	2,200	4,570	4,480	(90)	-2.0%
663588 - EQUIPMENT MAINTENANCE	-	-	1,500	1,500	-	0.0%
663592 - RECRUITING SERVICES	1,865	2,252	7,250	7,250	-	0.0%
663594 - DIGSAFE	70,545	27,319	71,000	71,000	-	0.0%
663595 - OUTPLACEMENT SERVICES	-	-	2,000	2,000	-	0.0%
663598 - HR CONSULTANT SERVICES	4,793	350	2,000	2,000	-	0.0%
6635984 - LANGUAGE INTERPRETATION	-	-	300	300	-	0.0%
663599 - MISC OTHER SERVICES	51,298	14,854	35,435	36,800	1,365	3.9%
Contracted Services Total	787,627	382,748	772,047	828,709	56,662	7.3%
Deferred Cost W/O						
66754 - DEFERRED COSTS WRITE OFF	10,086	-	-	-	-	-
Deferred Cost W/O Total	10,086	-	-	-	-	-
Insurance						
6657 - GEN LIABILITY INSURANCE	48,610	24,710	48,340	49,419	1,079	2.2%
66592 - DAMAGES & CLAIMS-GOODWILL	4,389	3,490	4,000	4,000	-	0.0%
66593 - UMBRELLA INSURANCE COVER	2,950	1,537	2,909	3,074	165	5.7%
66594 - PROFESSION/CRIME BONDING	33,324	16,385	33,104	32,769	(335)	-1.0%
Insurance Total	89,273	46,122	88,353	89,262	909	1.0%

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Materials & Supplies						
6619 - ASSET PURCHASES	\$5,265	\$5,061	\$6,000	\$8,000	\$2,000	33.3%
66202 - TOOLS	99	28	300	300	-	0.0%
66203 - VENDOR PURCHASED SUPPLIES	2,243	945	2,600	2,600	-	0.0%
662041- MATERIALS INVENTORY	397	35	-	-	-	n/a
662042 - SUPPLIES INVENTORY	1,974	381	2,600	2,600	-	0.0%
662043 - TOOL INVENTORY	5,045	3,770	2,025	3,625	1,600	79.0%
66204301- INVENTORY - TONER	1,741	589	6,000	3,000	(3,000)	-50.0%
66204302 - INVENTORY - PAPER	1,659	1,435	4,000	4,000	-	0.0%
66204303 - INVENTORY - COMPUTER EQUIP	3,193	1,855	6,413	9,175	2,762	43.1%
662047 - GARAGE INVENTORY	34	6	-	-	-	n/a
66205 - CONSUMABLE SUPPLIES	1,596	1,050	3,500	3,450	(50)	-1.4%
66206 - COMPUTER RELATED EQUIP	37,752	25,554	25,753	33,140	7,387	28.7%
Materials & Supplies Total	60,998	40,709	59,191	69,890	10,699	18.1%
Other Expense						
6642 - EQUIPMENT RENT	2,892	1,446	2,900	2,900	-	0.0%
66601- PUBLIC RELATIONS	2,178	195	1,500	2,000	500	33.3%
66609 - OTHER ADVERTISING	36,160	2,601	23,476	10,900	(12,576)	-53.6%
6675111- INSTATE TRAINING/CONF	8,546	5,740	19,300	20,400	1,100	5.7%
6675112 - OUT OF STATE TRAINING/CON	20,527	5,277	28,000	20,500	(7,500)	-26.8%
667513 - DUES	50,838	4,653	41,460	50,445	8,985	21.7%
667514 - PROFESSIONAL LICENSES	340	-	900	900	-	0.0%
667515 - PERIODICAL SUBSCRIPTIONS	5,252	3,191	5,721	5,485	(236)	-4.1%
667521- POSTAGE - THIRD PARTY	194,712	130,341	203,300	210,596	7,296	3.6%
667522 - POSTAGE - INTERNAL	13,316	6,038	15,535	15,300	(235)	-1.5%
667523 - POSTAGE - EXPRESS DELIVER	267	-	350	350	-	0.0%
667531- PRINTING COSTS	28,211	12,387	31,900	33,050	1,150	3.6%
667533 - FORMS STOCK	675	730	900	900	-	0.0%
667552 - SAFETY TRAINING	5,493	-	2,900	3,000	100	3.4%
667553 - DOT SUBSTANCE ABUSE	1,248	472	2,000	2,000	-	0.0%
667555 - SAFETY EXPENSES	3,915	3,302	10,000	5,000	(5,000)	-50.0%
667592 - FOOD SUPPLIES	905	2,140	2,850	4,900	2,050	71.9%
667598 - GEN MANAGER CONTINGENCY	25,487	14,134	55,000	45,000	(10,000)	-18.2%
6675981- GEN MNG - TRUSTEES	8,430	8,646	11,450	10,950	(500)	-4.4%
6675982 - GEN MNG - COMMUNITY	23,406	(2,597)	24,615	25,115	500	2.0%
667599 - OTHER MISCELLANEOUS	11,335	6,176	1,500	1,500	-	0.0%
Other Expense Total	444,133	204,872	485,557	471,191	(14,366)	-3.0%
Tele/Other Utilities						
66112 - DATA LINES	16,050	9,259	14,160	14,940	780	5.5%
66113 - CELLULAR PHONES	11,122	4,712	9,420	10,608	1,188	12.6%
66114 - PAGERS	138	96	-	96	96	n/a
Tele/Other Utilities Total	27,310	14,067	23,580	25,644	2,064	8.8%
Transportation						
66501- TRANSPORTATION - INTERNAL	11,814	5,864	11,772	11,583	(189)	-1.6%
665019 - TRANS INTERNAL INACTIVE	4,263	1,996	4,845	3,763	(1,082)	-22.3%
66502 - TRANSPORTATION - EXTERNAL	912	357	850	850	-	0.0%
66503 - MILEAGE REIMBURSEMENT	2,685	1,021	4,060	3,175	(885)	-21.8%
66504 - MTA TRANS- PASS TOLL FEES	14	-	-	-	-	-
Transportation Total	19,688	9,238	21,527	19,371	(2,156)	-10.0%
Grand Total	5,169,517	2,613,993	5,459,534	5,637,880	178,346	3.3%

Administrative Services: Customer Services (F1)

Financial Summary:

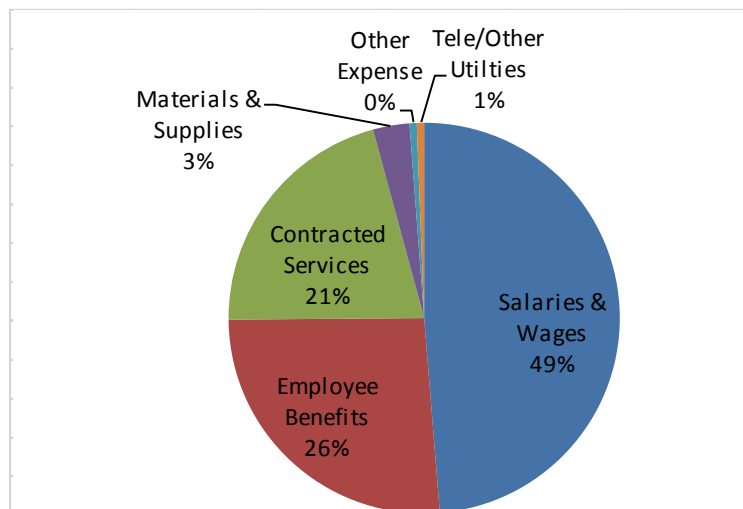
	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$698,403	\$314,210	\$659,720	\$727,653	\$67,933	10.3%
Employee Benefits	360,401	157,865	351,329	383,384	32,055	9.1%
Contracted Services	156,059	80,404	172,867	172,679	-188	-0.1%
Materials & Supplies	7,551	6,305	13,028	14,890	1,862	14.3%
Other Expense	191,678	122,213	207,085	211,796	4,711	2.3%
Tele/Other Utilities	1,558	455	1,380	2,004	624	45.2%
Transportation	16,727	8,237	17,617	16,346	-1,271	-7.2%
Grand Total	1,432,377	689,689	1,423,026	1,528,752	105,726	7.4%
Programs:						
74 - Control Center	191,734	85,654	181,613	184,727	3,114	1.7%
76 - Collection	53,643	26,598	60,365	59,808	-557	-0.9%
77 - Billing	259,016	170,276	288,490	301,376	12,886	4.5%
80 - Meter Reading	71,514	33,439	85,831	77,079	-8,752	-10.2%
98 - Training	44,073	32,400	58,602	58,153	-449	-0.8%
99 - Administration	812,397	341,322	748,125	847,609	99,484	13.3%
Grand Total	1,432,377	689,689	1,423,026	1,528,752	105,726	7.4%
Funds:						
10 - General	1,378,633	663,091	1,362,661	1,468,944	106,283	7.8%
20 - Water General	33,583	16,443	39,043	36,268	-2,775	-7.1%
30 - Water Standish	1,611	854	1,794	1,820	26	1.4%
51 - WW Cape Elizabeth	1,182	633	1,100	1,266	166	15.1%
53 - WW Cumberland	530	271	338	442	104	30.8%
54 - WW Falmouth	771	474	495	637	142	28.7%
57 - WW Portland	7,982	3,756	9,758	10,501	743	7.6%
59 - WW South Portland	3,919	1,848	3,791	4,306	515	13.6%
61 - WW Gorham	1,272	646	947	1,144	197	20.8%
62 - WW Westbrook	2,894	1,673	3,099	3,424	325	10.5%
Grand Total	1,432,377	689,689	1,423,026	1,528,752	105,726	7.4%
Headcount:						
Full-Time	14	13	13	14	1	7.7%
Part-Time	0	0	0	0	0	n/a
Total	14	13	13	14	1	7.7%



Administrative Services: Information Services (G1)

Financial Summary:

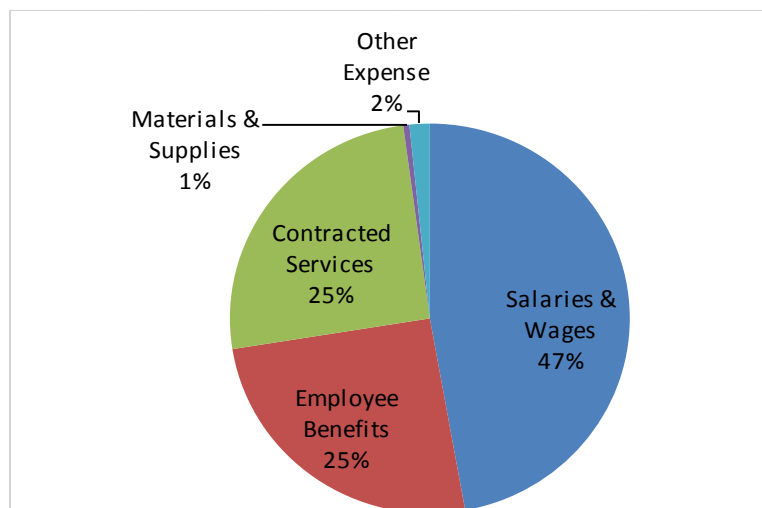
	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$457,080	\$223,011	\$480,342	\$485,224	\$4,882	1.0%
Employee Benefits	239,990	122,010	264,227	260,430	-3,797	-1.4%
Contracted Services	183,290	66,545	203,250	208,250	5,000	2.5%
Materials & Supplies	42,833	26,693	32,500	30,000	-2,500	-7.7%
Other Expense	3,557	5,989	8,125	5,425	-2,700	-33.2%
Tele/Other Utilities	8,788	7,109	5,940	6,036	96	1.6%
Transportation	987	260	600	500	-100	-16.7%
Grand Total	936,525	451,617	994,984	995,865	881	0.1%
Programs:						
98 - Training	27,899	28,351	34,600	32,128	-2,472	-7.1%
99 - Administration	908,626	423,266	960,384	963,737	3,353	0.3%
Grand Total	936,525	451,617	994,984	995,865	881	0.1%
Funds:						
10 - General	936,525	451,617	994,984	995,865	881	0.1%
Grand Total	936,525	451,617	994,984	995,865	881	0.1%
Headcount:						
Full-Time	7	7	7	7	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	7	7	7	7	0	0.0%



Administrative Services: Financial Services (H1)

Financial Summary:

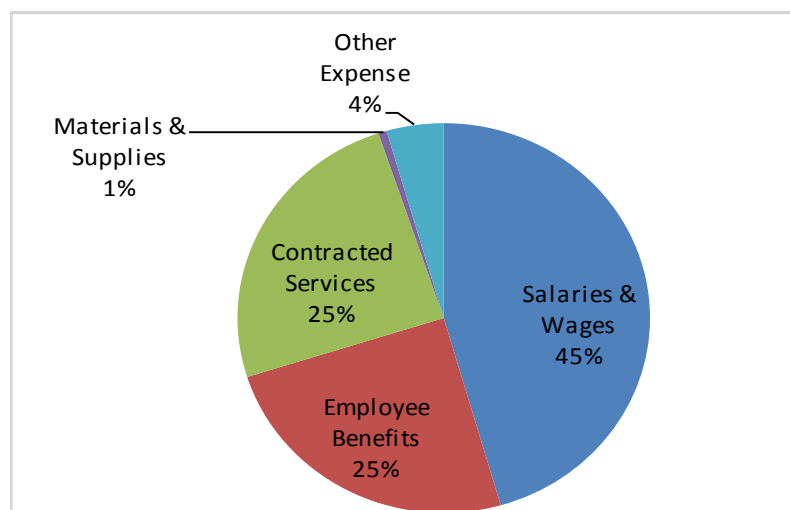
	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$406,756	\$185,927	\$417,655	\$424,687	\$7,032	1.7%
Employee Benefits	212,374	103,840	229,243	227,893	-1,350	-0.6%
Contracted Services	226,150	145,858	223,910	228,580	4,670	2.1%
Deferred Cost W/O	10,086	0	0	0	0	n/a
Materials & Supplies	3,986	1,935	4,925	4,475	-450	-9.1%
Other Expense	14,463	4,403	16,060	14,450	-1,610	-10.0%
Transportation	169	50	250	275	25	10.0%
Grand Total	873,984	442,013	892,043	900,360	8,317	0.9%
Programs:						
77 - Billing	170,771	87,487	172,750	176,164	3,414	2.0%
98 - Training	25,004	11,639	30,212	27,889	-2,323	-7.7%
99 - Administration	678,209	342,887	689,081	696,307	7,226	1.0%
Grand Total	873,984	442,013	892,043	900,360	8,317	0.9%
Funds:						
10 - General	808,948	428,484	815,622	821,255	5,633	0.7%
20 - Water General	65,036	13,529	76,421	79,105	2,684	3.5%
Grand Total	873,984	442,013	892,043	900,360	8,317	0.9%
Headcount:						
Full-Time	8	8	8	8	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	8	8	8	8	0	0.0%



Administrative Services: Employee Services (I1)

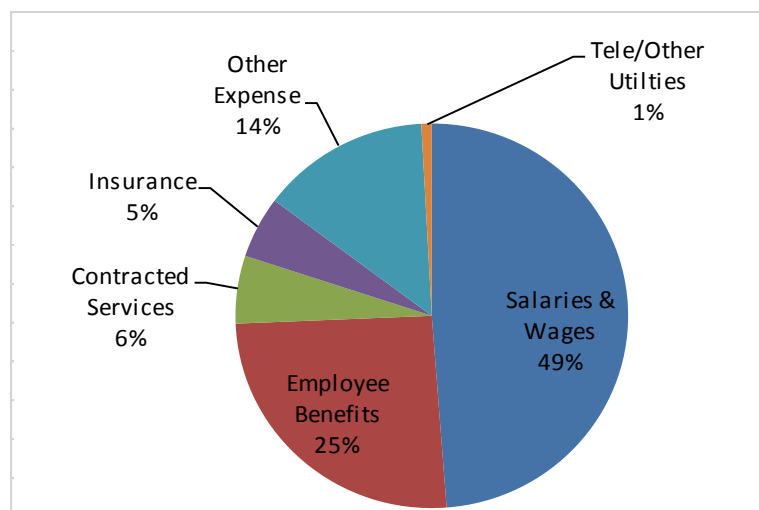
Financial Summary:

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$213,303	\$107,643	\$218,076	\$222,609	\$4,533	2.1%
Employee Benefits	111,856	59,622	119,961	120,069	108	0.1%
Contracted Services	117,595	31,941	77,000	121,000	44,000	57.1%
Materials & Supplies	2,557	1,197	3,000	3,200	200	6.7%
Other Expense	18,081	9,338	22,950	18,550	-4,400	-19.2%
Tele/Other Utilities	2,050	774	2,160	2,844	684	31.7%
Transportation	273	28	500	500	0	0.0%
Grand Total	465,715	210,543	443,647	488,772	45,125	10.2%
Programs:						
98 - Training	19,175	13,705	16,025	16,674	649	4.0%
99 - Administration	446,540	196,838	427,622	472,098	44,476	10.4%
Grand Total	465,715	210,543	443,647	488,772	45,125	10.2%
Funds:						
10 - General	465,715	210,543	443,647	488,772	45,125	10.2%
Grand Total	465,715	210,543	443,647	488,772	45,125	10.2%
Headcount:						
Full-Time	3	3	3	3	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	3	3	3	3	0	0.0%



Administrative Services: Executive (I1)**Financial Summary:**

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$688,653	\$398,662	\$825,504	\$841,274	\$15,770	1.9%
Employee Benefits	341,586	243,447	443,222	440,590	-2,632	-0.6%
Contracted Services	104,533	58,000	95,020	98,200	3,180	3.3%
Insurance	89,273	46,122	88,353	89,262	909	1.0%
Materials & Supplies	4,071	4,579	5,738	17,325	11,587	201.9%
Other Expense	216,354	62,929	231,337	220,970	-10,367	-4.5%
Tele/Other Utilities	14,914	5,729	14,100	14,760	660	4.7%
Transportation	1,532	663	2,560	1,750	-810	-31.6%
Grand Total	1,460,916	820,131	1,705,834	1,724,131	18,297	1.1%
Programs:						
5 - Public Relations	174,988	74,745	181,253	177,221	-4,032	-2.2%
98 - Training	44,325	19,128	73,508	74,019	511	0.7%
99 - Administration	1,241,603	726,258	1,451,073	1,472,891	21,818	1.5%
Grand Total	1,460,916	820,131	1,705,834	1,724,131	18,297	1.1%
Funds:						
10 - General	1,380,226	791,821	1,660,334	1,678,631	18,297	1.1%
20 - Water General	70,845	19,044	45,500	45,500	0	0.0%
50 - Wastewater General	3,401	70	0	0	0	n/a
57 - WW Portland	6,318	9,196	0	0	0	n/a
62 - WW Westbrook	126	0	0	0	0	n/a
Grand Total	1,460,916	820,131	1,705,834	1,724,131	18,297	1.1%
Headcount:						
Full-Time	8	8	8	9	1	12.5%
Part-Time	1	1	1	1	0	0.0%
Total	9	9	9	10	1	11.1%



Non-Departmental

Non-Department expenses are expenses that are not specifically assigned to a department. Other expenses include Public Utilities Commission's assessment, real estate taxes assessed by the Town of Standish and Bad Debt write-off.

	2016 Actual	2017 Jan-Jun	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Contracted Services						
6631 - ENGINEERING SERVICES	29,572	-	-	-	-	n/a
66354 - MAINTENANCE SERVICES	150,605	-	-	-	-	n/a
663599 - MISC OTHER SERVICES	(27,183)	-	-	-	-	n/a
Contracted Services Total	152,994	-	-	-	-	n/a
Materials & Supplies						
6619 - ASSET PURCHASES	32,266	-	-	-	-	n/a
Materials & Supplies Total	32,266	-	-	-	-	n/a
Other Expense						
6670 - BAD DEBT EXPENSE	11,171	19,200	38,400	32,400	(6,000)	-15.6%
667561 - WATERSHED GRANTS/SUPPORT	47,944	40,060	-	-	-	n/a
6675611 - GRANTS - PASS-THROUGH	4,447	1,300	-	-	-	n/a
6706 - AMORT OF U P A CQ ADJUSTS	17,000	8,500	17,000	17,000	-	0.0%
Other Expense Total	80,562	69,060	55,400	49,400	(6,000)	-10.8%
Regulatory/Taxes						
670821 - STANDISH REAL ESTATE TAX	42,595	22,173	42,900	46,350	3,450	8.0%
670822 - OTHER R/E TAX(NON-STANDI)	7,847	4,877	7,400	7,750	350	4.7%
670823 - PUC ASSESSMENT	75,015	77,297	80,000	78,700	(1,300)	-1.6%
670824 - ME DRINKING WTR PROGRAM	68,700	-	68,665	68,665	-	0.0%
670825 - PUC PUBLIC ADVOCATE	11,118	-	19,050	15,000	(4,050)	-21.3%
Regulatory/Taxes Total	205,275	104,347	218,015	216,465	(1,550)	-0.7%
Grand Total	471,097	173,407	273,415	265,865	(7,550)	-2.8%

The District pays (670821 – Standish Real Estate Tax) real estate taxes and personal property taxes to the Town of Standish for land and other property in the town. Real estate charges in other municipalities are paid using account 670822 – Other R/E Tax (Non-Standish).

The District also pays annual assessments the Maine Public Utility Commission (PUC) and the Maine Drinking Water Program. The PUC assessment has two components – general assessment (670823 – PUC Assessment) and public advocacy (670825 – PUC Public Advocate). The PUC bases the general assessment on the utility's size and the amount of time the Commission spends in each industry sector. The assessment from the Drinking Water Program (670824 – ME Drinking WTR Program) is based on population served.

The actual contracted services charges in 2016 are one-time repair charges incurred at the Shore Acre Tank in Cape Elizabeth for which the District receives payments from its use by cell phone providers.

Community

Connections

The Portland Water District is proud to serve the public. As an integral part of the community, we strive to support various causes aligned with our company values and vision.

\$1,500 DiPietro Memorial Scholarship



The 2017 scholarship was awarded to Mohammed Omane of Portland. Omane is pursuing a degree in business administration at the Southern Maine Community College. He is the first in his family to attend college.

Environmental Education

Through our environmental education program, we connect with thousands of students-- teaching about our water resources and encouraging stewardship. The program is active in area schools but also routinely offers fun and interactive activities and events like Trail Day and Water Connections.



Lifeline Water Rates and Water Conservation Grants

PWD offers qualified residential customers discounted lifeline water rates.

Annual Charity Golf Classic

Thanks to all the generous sponsors, participants, and volunteers, the Portland Water District's 16th Annual Charity Golf Classic raised over \$9,000 for worthy causes supported by United Way and MaineShare.



Water Bottle Filling Fountain Grants

The Board of Trustees awarded three grants in 2017: Ocean Avenue Elementary,

the City of Portland, and the Westbrook School Department. Ocean Ave took the grant one step further and promotes healthy options for hydration. Student Anneliese Collin created a poster with the help of her older sister to compare water to other choices. The Portland Water District donated 500 water bottles to their efforts.



Portable Potable Water

The Portland Water District provides various potable water solutions for community events including a portable water fountain, igloo containers, eco cups, and reusable water bottles.



Introduction

Total salaries, wages and benefits budget for 2018 is \$17,117,388. This is 3.6% higher than the 2017 budget.

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

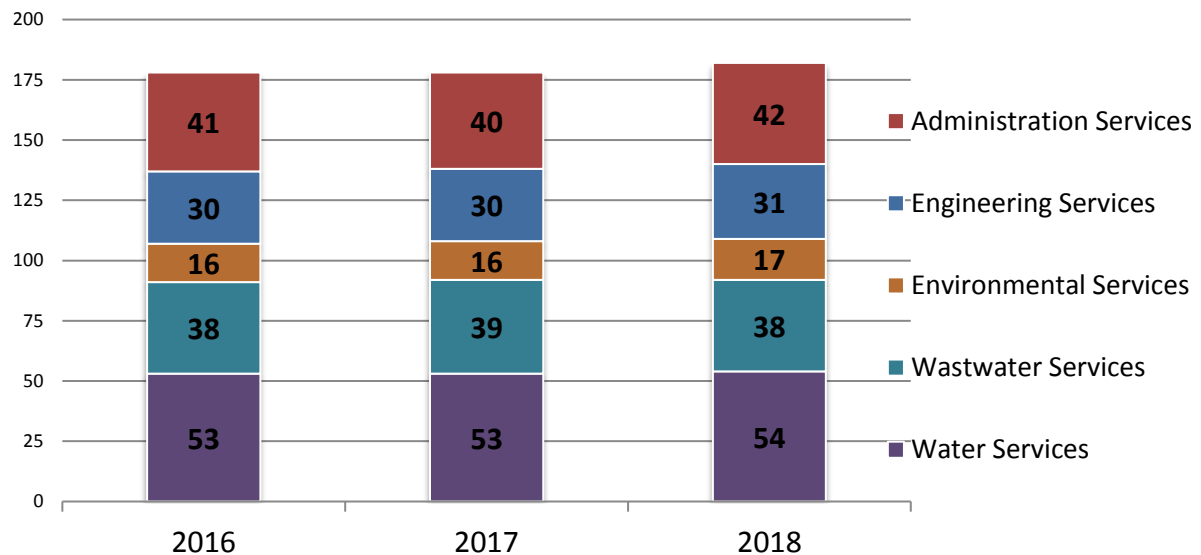
	2016 Actual	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages	\$10,380,244	\$10,943,145	\$11,441,316	\$498,171	4.6%
Employee Benefits	<u>4,962,174</u>	<u>5,576,845</u>	<u>5,676,072</u>	<u>\$99,227</u>	<u>1.8%</u>
Actual	15,342,418	16,519,990	17,117,388	597,398	3.6%

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 \$443,123 in labor/benefits to capital projects in 2018; which is \$41,120 (10.2%) higher than the 2017 budget.

	2016 Actual	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Operations & Maintenance	\$15,052,510	\$16,117,987	\$16,674,265	\$556,278	3.5%
Capital	<u>289,908</u>	<u>402,003</u>	<u>443,123</u>	<u>41,120</u>	<u>10.2%</u>
	15,342,418	16,519,990	17,117,388	597,398	3.6%

Total Employee Positions:

Authorized positions increased to 182; this is the first time that total positions has changed since 2009 and increased in more than 20 years.



Salary Costs

The Budget assumes total labor costs will increase by 4.6% (\$498,171).

The budget assumed pay rates would be 3.0% higher than the rates paid on July 1, 2017 and that the District headcount for regular employees would increase from 178 to 182. These four (4) new positions add approximately \$211,000 to the labor budget. The increase without these positions would be \$287,171 or 2.6%.

Operating labor will increase 4.2% while capital labor will increase 16.1% as the ratio of operating/ capital labor goes from 97.1%/2.9% to 96.8%/3.2%.

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

	2016 Actual	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	\$9,542,509	\$10,060,207	\$10,500,418	\$440,211	4.4%
Overtime	507,370	473,964	535,596	61,632	13.0%
Doubletime	41,680	48,333	53,518	5,185	10.7%
Standby	132,314	127,655	131,996	4,341	3.4%
Premium Time/Standby	681,364	649,952	721,110	71,158	10.9%
Trustee Compensation	23,075	27,000	27,000	0	0.0%
District Employed Temps	125,842	157,820	151,788	-6,032	-3.8%
Agency Temps	7,454	48,166	41,000	-7,166	-14.9%
Temporary Employees	133,296	205,986	192,788	-13,198	-6.4%
Total Labor Cost	10,380,244	10,943,145	11,441,316	498,171	4.6%

Total Labor broken out by O&M and Capital:

	2016 Actual	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Operating Expense	\$10,114,274	\$10,625,197	\$11,072,089	\$446,892	4.2%
Capital Expenditures	265,971	317,948	369,230	51,282	16.1%
	10,380,245	10,943,145	11,441,319	498,174	4.6%
Operating Expense	97.4%	97.1%	96.8%		
Capital Expenditures	2.6%	2.9%	3.2%		
	100.0%	100.0%	100.0%		

Labor Hours/Average Pay Rates

Budgeted hours for the 2018 Budget were up by 7,781 hours or 1.9%. Regular time increased 8,320 hours reflecting the additions to headcount. Premium Time/Standby hours increased (8.8%) to reflect current trends while Temporary Employee hours were reduced 14.9% (2,262 hours).

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

	2016 Actual	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	355,533	368,680	377,000	8,320	2.3%
Overtime	14,563	13,227	14,730	1,504	11.4%
Doubletime	896	989	1,078	90	9.1%
<u>Standby</u>	<u>5,337</u>	<u>5,404</u>	<u>5,535</u>	<u>131</u>	<u>2.4%</u>
Premium Time/Standby	20,796	19,619	21,343	1,724	8.8%
District Employed Temps	10,096	12,585	10,842	(1,743)	-13.9%
<u>Agency Temps</u>	<u>373</u>	<u>2,570</u>	<u>2,051</u>	<u>(519)</u>	<u>-20.2%</u>
Temporary Employees	10,469	15,155	12,893	(2,262)	-14.9%
	386,798	403,455	411,236	7,781	1.9%

Labor Rates by Type:

On average pay rates were increased 3.0%. Changes to overtime, double-time and standby varied due to shifts in personnel budgeted to cover those hours. Temporary Employee rates increased to reflect market demands. Please note that the rates for Agency Temps are higher because the agencies must cover costs such as FICA and workers comp.

	2016 Actual	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	\$26.84	\$27.29	\$27.85	\$0.56	2.1%
Overtime	34.84	35.83	36.36	0.53	1.5%
Doubletime	46.52	48.90	49.65	0.75	1.5%
<u>Standby</u>	<u>24.79</u>	<u>23.62</u>	<u>23.85</u>	<u>0.23</u>	<u>1.0%</u>
Premium Time/Standby	32.76	33.13	33.79	0.66	2.0%
District Employed Temps	12.46	12.54	14.00	1.46	11.6%
<u>Agency Temps</u>	<u>19.98</u>	<u>18.73</u>	<u>19.99</u>	<u>1.26</u>	<u>6.7%</u>
Temporary Employees	12.73	13.59	14.95	1.36	10.0%
	26.84	27.12	27.82	0.70	2.6%

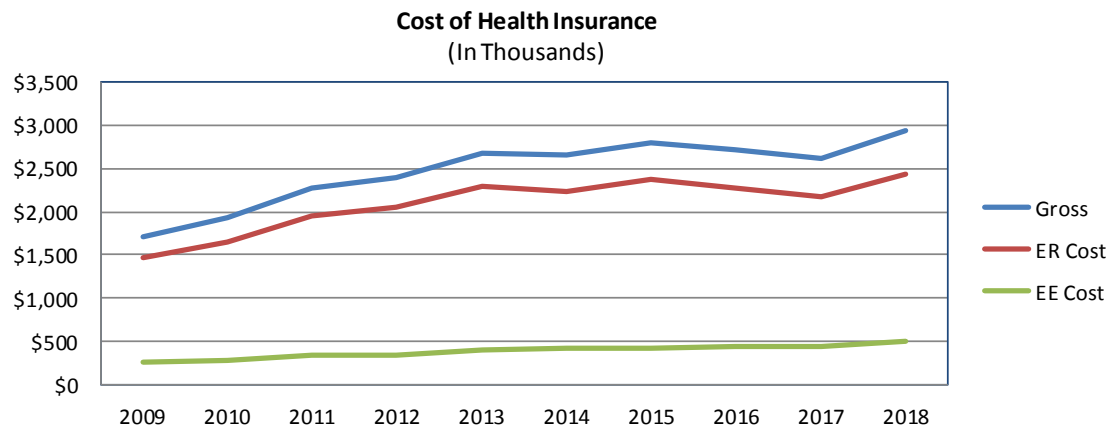
Employee Benefits

In order to qualify for benefits, employees must work more than 20/24 hours/week (non-union/union). Seasonal or temporary employees are monitored for eligibility as required under ACA, but in general do not qualify for benefits. Benefits are charged to departments as a percentage of the regular non-premium pay. In 2018, the benefits percentage decreased from 47.15% to 45.75%. Health insurance costs rose 11.5% while pension costs decreased 6.9%.

Health Insurance

Claims experience for the health plan has not been as favorable as prior years resulting in a renewal rate increase 10% for calendar year 2018. The 2018 Budget for Health Insurance is \$2,448,000. This is an increase of \$253,319 (11.5%) from the prior year's budget.

The 2017 Budget assumed the District would pay 93% of an employee's health insurance premiums and 70% of the premiums for dependents. The 2018 Budget assumes a reduction in the employee coverage to 92% while keeping the dependent percentage the same. The result, when combined with other factors such changes to employee plans (single, employee with children, employee and spouse only for family plans) resulted in an increase in total employee contributions of \$70,150 (16.1%) to \$506,600.



The District makes health insurance coverage available to regular employees who work over 20 hours per week (24 hours per week for Union employees). The medical cost for part-time employees is pro-rated based on hours worked. The District provides \$30/week to any employee who is insured outside the District. The Budget assumed six positions will be vacant:

Year	Insured	Non-Insured	Total
2017	163	10	173
<u>2018</u>	<u>167</u>	<u>9</u>	<u>176</u>
Change	+4	-1	+3

Employee Benefits (continued)

Pension

Pension related expenses are \$1,866,723 in the 2018 Budget. The District offers employees a defined benefit plan and a deferred compensation plan.

The defined benefit plan's contributions in the 2018 Budget decreased \$168,566 (10.6%) to \$1,414,448. This contribution is consistent with the Board adopted long-term funding policy and represents the amount calculated by the District's actuary as of May 1, 2017. The decline is primarily due to the better than expected investment returns. The plan is solely funded by the District without any employee contribution.

In addition, the deferred compensation plan for Union employees hired prior to 2011, and Non-Union employees hired prior to 2012, will fully match employee contributions up to \$1,225 annually. This cost has been budgeted at \$126,175 for 2018.

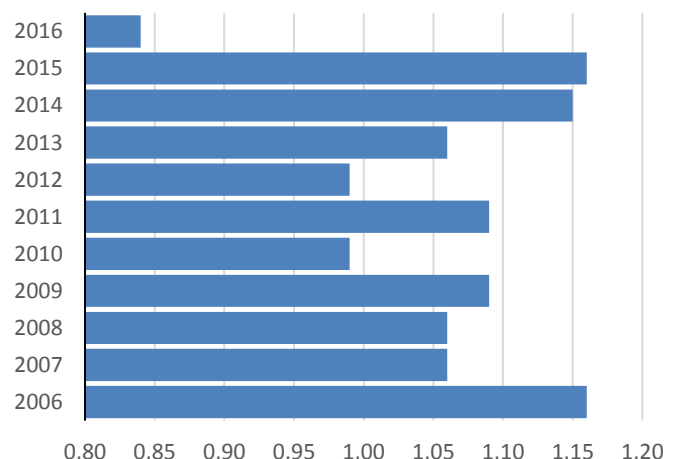
New Union employees hired during or after 2011, and Non-Union employees hired during or after 2012, are enrolled in the deferred compensation plan only. The plan requires employees to contribute 3.0% of their pay which the District matches at a rate of 150%. Effective April 4, 2016, the District matches up to 4.5% of their pay, with employee contributions above 3% remaining voluntary. The expense for the match is budgeted at \$190,000 for 2018.

Workers Compensation

The District participates in the Maine Municipal Association's workers' compensation program. The premium assessed is based on amount of wages and a claim experience factor. In 2017, the "Mod" factor of .84 was lowered to 0.73, the lowest it has been over our 10-year average of 1.08. This is the direct result of older claims dropping off the experience rating, active claims management, increased baseline examination for injuries and accident investigations. When the mod rate dipped to .84 it resulted in premium reductions of over \$60,000 annually. The reduction in 2017 will provide an additional \$10,000 in premium savings. Effective 1/1/18, our mod rate will again drop to .68. This reduction in premiums will result in an approximate \$4,000 annually in savings.

The 2018 Budget is \$195,000, with a deductible cost of \$9,000 the total budget is \$204,000.

Maine Municipal Assoc. - Mod Factor



Other Benefits

Other benefits which include dental, uniforms, unemployment, long-term disability and life insurance total \$285,277 (down 1.0% over the prior year).

Employee Benefits (continued)

	2016 Actual	2017 Budget	2018 Budget	Budget Diff \$	Budget Diff %
Health Insurance:					
6604041 - HEALTH INSURANCE-EMPLOYEE	2,596,773	2,615,531	2,940,100	324,569	12.4%
66040419 - HEALTH INSUR - EE CONTRIB	(437,685)	(436,450)	(506,600)	(70,150)	16.1%
6604043 - MEDICAL INSURANCE PAYOUT	14,920	15,600	14,500	(1,100)	-7.1%
	2,174,008	2,194,681	2,448,000	253,319	11.5%
Pension Expenses:					
6604061 - PENSION EXPENSES	101,804	118,000	126,100	8,100	6.9%
6604062 - PENSION CONTRIBUTION	1,200,000	1,583,014	1,414,448	(168,566)	-10.6%
6604063 - DEF COMP MANDATORY	157,687	165,000	190,000	25,000	15.2%
6604064 - DEF COMP ELECTIVE	134,714	130,000	126,175	(3,825)	-2.9%
6604065 - PENSION LEGAL EXPENSE	3,084	10,000	10,000	-	0.0%
	1,597,289	2,006,014	1,866,723	(139,291)	-6.9%
Workers Compensation:					
660409 - WORKERS' COMPENSATION	195,549	247,000	195,000	(52,000)	-21.1%
6604091 - WORKES COMP DEDUCTABLE	10,883	7,500	9,000	1,500	20.0%
	206,432	254,500	204,000	(50,500)	-19.8%
Other Benefits:					
66025 - BENEFITS CONTINGENCY	-	20,000	27,602	7,602	38.0%
660402 - LONG-TERM DISABILITY	27,330	27,000	27,000	-	0.0%
660403 - LIFE INSURANCE	21,794	20,000	20,000	-	0.0%
660407 - EDUCATION SUBSIDY	2,795	11,000	11,000	-	0.0%
660408 - PROGRAMS ADMINISTRATION	6,418	7,100	10,000	2,900	40.8%
660410 - UNEMPLOYMENT COMPENSATION	6,738	15,000	15,000	-	0.0%
660413 - PWD TRAINING PROGRAM	3,800	17,800	5,000	(12,800)	-71.9%
6604151 - FIELD UNIFORMS	32,198	33,000	34,850	1,850	5.6%
6604152 - OFFICE CLOTHING	5,941	7,200	7,200	-	0.0%
660416 - DENTAL COVERAGE	48,512	50,000	60,000	10,000	20.0%
660417 - WELLNESS PROGRAM	-	2,500	2,500	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	23,919	24,750	26,000	1,250	5.1%
660420 - WORKFORCE PLANNING	199	1,000	1,000	-	0.0%
660421 - POST RETIREMENT BENEFITS	29,612	24,057	24,057	-	0.0%
660422 - ACTUARY NON-PENSION	-	7,000	2,500	(4,500)	-64.3%
663592 - RECRUITING SERVICES	-	20,000	10,000	(10,000)	-50.0%
66595 - INDENTITY FRAUD INSURANCE	1,067	1,067	1,067	-	0.0%
667599 - OTHER MISCELLANEOUS	(2,093)	(282)	451	733	-259.9%
	208,229	288,192	285,227	(2,965)	-1.0%
Total Employee Benefits	4,185,958	4,743,387	4,803,950	60,563	1.3%
660401 - FICA - EMPLOYERS' SHARE	776,216	833,458	872,122	38,664	4.6%
Total Costs	4,962,174	5,576,845	5,676,072	99,227	1.8%
Total Regular Labor (Benefits Basis)	9,491,457	10,060,207	10,500,418	440,211	4.4%
Benefit Rate	44.10%	47.15%	45.75%	-1.40%	-3.0%
Total Rate	51.75%	54.80%	53.40%	-1.40%	-2.6%

Note: The total employee benefits expense above (\$5,676,072) does not include \$92,680 in employee benefits charged directly to departments. With these costs, the District's benefits cost is \$5,768,752.

Authorized Headcount

The overall headcount increased from 178 to 182 between 2017 and 2018. **Six new positions are proposed:** Industrial Pretreatment Scientist, Wastewater Maintenance Manager, Associate Engineer, Asset Management Technician, Utility Specialist Foreperson & Customer Service Coordinator.

Eliminated were two position: Chief Plant Operator and SCADA Specialist. **Five positions were reclassified:** Customer Service Supervisor, Administrative Assistant Operation, Equipment Operator, Facility Maintenance Foreperson & Wastewater Operator.

	2016	2017	2018	16 to 18	17 to 18
Water Services					
A1 - Water Administration	5.00	5.00	5.00	0.00	0.00
A2 - Transmission/Distribution	22.00	22.00	22.00	0.00	0.00
A3 - Water Treatment	11.00	11.00	11.00	0.00	0.00
A6 - Utility Services	15.00	15.00	16.00	1.00	1.00
	53.00	53.00	54.00	1.00	1.00
Wastewater Services					
B1 - Wastewater Administration	1.00	1.00	2.00	1.00	1.00
B3 - All WWTFs	24.00	25.00	23.00	-1.00	-2.00
L9 - Water / WW Systems	13.00	13.00	13.00	0.00	0.00
	38.00	39.00	38.00	0.00	-1.00
Environmental Services					
A5 - Environmental Services	9.00	9.00	9.00	0.00	0.00
L6 - Water / WW Laboratory	7.00	7.00	8.00	1.00	1.00
	16.00	16.00	17.00	1.00	1.00
Engineering Services					
C1 - Facility Services Administration	10.00	10.00	10.00	0.00	0.00
E2 - Planning & Design	16.00	16.00	18.00	2.00	2.00
E7 - Instrumentation	4.00	4.00	3.00	-1.00	-1.00
	30.00	30.00	31.00	1.00	1.00
Administrative Services					
F1 - Customer Service	14.00	13.00	14.00	0.00	1.00
G1 - Information Services	7.00	7.00	7.00	0.00	0.00
H1 - Financial Services	8.00	8.00	8.00	0.00	0.00
I1 - Employee Services	3.00	3.00	3.00	0.00	0.00
J1 - Executive Office	8.00	9.00	10.00	2.00	1.00
Non-Departmental	1.00	0.00	0.00	-1.00	0.00
	41.00	40.00	42.00	1.00	2.00
Total	178.00	178.00	182.00	4.00	4.00

Non-Union Positions

The overall Non-Union headcount increased from 57 to 59. The table below shows the requested Non-Union positions by pay range. The Job Class Code (JCC) is in parentheses:

	2	2	0	Dist Sys Manager - Water (9014)	1	1	0
				Eng/Asset Mgmt Srv Mngr (9031)	1	1	0
<u>Range 2 (\$48,100 to \$72,100)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>	Environmental Srv Manager (9020)	1	1	0
Asset Analyst (9043)	1	1	0	Information Srvs Manager (9010)	1	1	0
BSA - GIS (5022)	1	1	0	Senior Project Engineer (9045)	3	3	0
Business Systems Analyst (9501)	1	1	0	Project Manager - Admin (9047)	<u>1</u>	<u>1</u>	<u>0</u>
Chief of Security Oper (1069)	1	1	0		10	10	0
Cust Serv Supervisor (5030)	1	0	-1				
Associate Engineer (5023)	1	2	1	<u>Range 5 (\$75,400 to \$113,200)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>
Environmental Educ Coord (5017)	1	1	0	Director of Opr Srvs (9011)	2	2	0
ES Conslt Safety/Training (5004)	1	1	0	Exec Director of EE Srvs (9007)	<u>1</u>	<u>1</u>	<u>0</u>
ES Consultant Employment (5003)	1	1	0		3	3	0
Financial Analyst (5020)	2	2	0				
Industrial Pretreatment Scientist	0	1	1	<u>Range 6 (\$84,900 to \$127,200)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>
Network Admin I (9503)	1	1	0	Corporate Counsel (9035)	1	1	0
Network Admin II (9044)	1	1	0	Exec Director of Admin (9004)	1	1	0
Purchasing Agent/Buyer (5005)	1	1	0	Exec Director of AMAP (9005)	<u>1</u>	<u>1</u>	<u>0</u>
Right of Way Agent (5014)	1	1	0		3	3	0
Scheduler/Coord AMAP (5032)	1	1	0				
Scheduler/Coordinator Ops (5033)	1	1	0	<u>Range 7 (\$102,200 to \$153,200)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>
Source Protection Coord (5018)	<u>1</u>	<u>1</u>	<u>0</u>	General Manager (9018)	1	1	0
	18	19	1				
<u>Range 3 (\$56,100 to \$84,200)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>	Workforce Management	<u>2017</u>	<u>2018</u>	<u>Change</u>
Admin Facility Chief Oper (5019)	1	1	0	Position (9600)	2	3	1
Cust Srv Program Manager (9502)	0	1	1				
Database Administrator (9027)	1	1	0	Full Time Positions	56	58	2
Network Admin III (9026)	1	1	0	Part Time Positions	<u>1</u>	<u>1</u>	<u>0</u>
Maintenance Manager (9038)	0	1	1	Total Non-Union Positions:	57	59	2
Project Engineer (9030)	3	3	0				
Public Relations Manager (PT) (9025)	1	1	0				
Regulatory Security Advsr (9028)	1	1	0				
SCADA Specialist (5034)	1	0	-1				
Transm Dist Supervisor (5011)	2	2	0				
Utility Asset Coord AMAP (9038)	1	1	0				
Utility Asset Coord Water (9039)	1	1	0				
Utility Specialist Suprv (9023)	1	1	0				
Wtr Svs Plnt/Sys Chief Op (9002)	1	1	0				
WW Chief Oper Plant/Sys (9042)	<u>3</u>	<u>2</u>	<u>-1</u>				
	18	18	0				

Union Positions

For the 2018 Budget, the Union headcount went up two (2) to 123. The number of part-time positions was unchanged at one (1).

<u>Paygrade - D (\$18.13/\$19.07)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>	<u>Paygrade - I (\$24.24/25.48)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>
AMR Specialist (1577)	1	1	0	Instrumentation Maint Per (1038)	2	2	0
Laboratory Assistant II (1092)	<u>1</u>	<u>1</u>	<u>0</u>	Senior WW Operator (1055)	5	5	0
	1	1	0	Utility Specialist (1085)	13	13	0
				Wtr Treat Plant Sys Oper (1051)	7	7	0
<u>Paygrade - E (\$19.17/\$20.19)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>	WW System Maint/Operator (1082)	<u>2</u>	<u>2</u>	<u>0</u>
Admin Dept Asst Finance (1027)	3	3	0		29	29	0
Administrative Asst Ops (1089)	1	0	-1				
Environmental Educator (5029)	1	1	0	<u>Paygrade - J (\$25.70/27.06)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>
Administrative Asst WW (1083)	<u>1</u>	<u>1</u>	<u>0</u>	Environmental Scientist (1022)	4	4	0
	6	5	-1	Facility Maint Foreperson (1565)	1	0	-1
				Tech Maint Pers Mech/Elec (1073)	5	5	0
<u>Paygrade - F (\$20.34/\$21.39)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>	Tech Maint Person SLWTF (1070)	1	1	0
Construction Technician (1004)	1	1	0	Water Resource Specialist (1021)	<u>4</u>	<u>4</u>	<u>0</u>
Cust Serv Coord Ctrl Ctr (1008)	3	3	0	(1 of 4 is part-time)	15	14	-1
Equip Operator II (1024)	1	0	-1				
Facility Maint Technician (1086)	3	3	0	<u>Paygrade - K (\$27.22/\$28.62)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>
Facility Supp Generalist (1091)	1	1	0	Dist System Foreperson (1557)	5	5	0
Technical Admin Asst (1522)	1	2	1	Facility Maint Foreperson (1565)	0	1	1
Wastewater Operator (1006)	4	3.25	-0.75	Garage Foreperson (1528)	1	1	0
Water System Operator (1005)	<u>10</u>	<u>11</u>	<u>1</u>	Lead Env Scien-Foreperson (1573)	1	1	0
	24	24.3	0.25	Operations Foreman, Sys (1090)	1	1	0
				Operations Foreperson (1053)	3	3	0
<u>Paygrade - G (\$21.57/22.68)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>	Utility Foreperson	0	1	1
Collections Coordinator (1028)	1	1	0	Ops Foreman, WW System (1093)	<u>1</u>	<u>1</u>	<u>0</u>
Cust Serv Coordinator (1017)	3	4	1		12	14	2
Engineering Tech II (1019)	1	1	0				
Equip Operator I (1023)	4	4	0	<u>Paygrade - L (\$28.89/\$30.39)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>
Garage Mechanic I (1029)	0	0	0	Inst Maint Foreperson (1537)	1	1	0
Fleet Maintenance Tech (1058)	1	1	0	Tech Maint Foreperson (1569)	<u>2</u>	<u>2</u>	<u>0</u>
Millwright I (1049)	1	1	0		3	3	0
WW Maintenance Operator (1059)	<u>11</u>	<u>10.8</u>	<u>-0.25</u>				
	22	22.8	0.75				
				Full Time Positions	121	123	2
<u>Paygrade - H (\$22.89/24.06)</u>	<u>2017</u>	<u>2018</u>	<u>Change</u>	Part Time Positions	<u>1</u>	<u>1</u>	<u>0</u>
Asset Mgmt Technician (1575)	3	4	1	Total Union Positions	121	123	2
Cust Serv Coordinator (1017)	3	3	0				
Collection Sys Maint Oper (1576)	1	1	0				
Inv Control Leadperson (1564)	<u>1</u>	<u>1</u>	<u>0</u>				
	8	9	1				

Temporary & Non-Benefit Employees

Temporary and non-benefit employees supplement regular employees particularly during the busy times of year. These positions are not benefits eligible, but the hours for benefits eligibility are now monitored carefully as is required under the Affordable Care Act. The Lab Assist II position is a non-benefit, employee (usually a college “intern”) who works 20 hours/week. All other positions are classified as “seasonal” employees who also are not offered benefits, but do have their hours tracked to monitor for benefits eligibility. The position totals are listed as full time equivalents (FTE’s). Temporary employees hired via outside agencies are also included below.

Water Operations	2016	2017	2018	Change '16 to 18
A1 - Water Administration	0.0	0.0	0.0	0.0
A2 - Transmission/Distribution	2.3	2.3	2.3	0.0
A3 - Water Treatment	0.0	0.0	0.0	0.0
A6 - Utility Services	1.3	1.3	1.3	0.0
	3.6	3.6	3.6	0.0
<u>Wastewater Operations</u>				
B1 - Wastewater Administration	0.0	0.0	0.0	0.0
B3 - Portland/Cape/Peaks WWTP's	0.2	0.2	0.2	0.0
B4 - Westbrook/Gorham/Windham WWTP	0.0	0.0	0.0	0.0
L9 - Water / WW Systems	0.1	0.1	0.1	0.0
	0.3	0.3	0.3	0.0
<u>Environmental Services</u>				
A5 - Environmental Services	3.0	2.0	2.0	-1.0
L6 - Water / WW Laboratory	0.5	0.5	0.0	-0.5
	3.5	2.5	2.0	-1.5
<u>Engineering Services</u>				
C1 - Facility Services Administration	0.5	0.5	0.5	0.0
E2 - Planning & Design	1.0	1.0	1.0	0.0
E3 - New Mains & Construction	0.0	0.0	0.0	0.0
E7 - Instrumentation	0.0	0.0	0.0	0.0
	1.5	1.5	1.5	0.0
<u>Administration Department</u>				
F1 - Customer Service	0.2	0.2	0.0	-0.2
G1 - Information Services	0.2	0.2	0.2	0.0
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	0.0	0.0	0.0	0.0
	0.4	0.4	0.2	-0.2
	9.2	8.3	7.6	-1.7

Temporary & Non-Benefit Employees (continued)

Temporary Positions Detail:

District Paid (Account 660131):

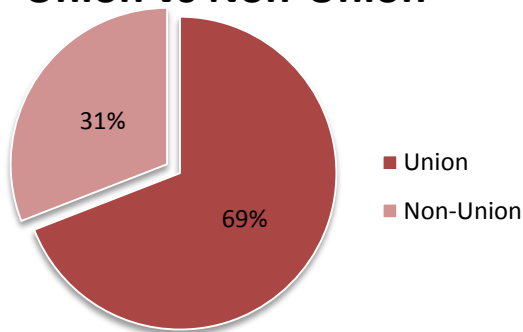
Org	Job Class	#EE	Hrs/Wk	# Wks	Hours	FTE's
A2	Water Operations Intern	1	40	15	600	0.29
	Construction Laborer	2	40	26	2,080	1.00
A5	Lake Security	6	10	20	1,200	0.58
	Lake Security	2	15	25	750	0.36
	Lake Security	1	10	46	460	0.22
	Wtr Resource Outreach Specialist	1	40	15	655	0.31
A6	Construction Laborer	2	40	26	2,080	1.00
B3	Wasterwater Operations Intern	1	40	10	400	0.19
C1	Facility Maintenance Technician	1	40	26	1,040	0.50
E2	Engineering Intern	2	40	13	1,040	0.50
	Engineering Aide	1	40	26	1,040	0.50
L6	Laboratory Assistant Part Time	1	20	52	1,040	0.50
L9	Wasterwater Operations Intern	1	40	5	200	0.10
		22			12,586	6.05

Agency Paid (Account 660136)

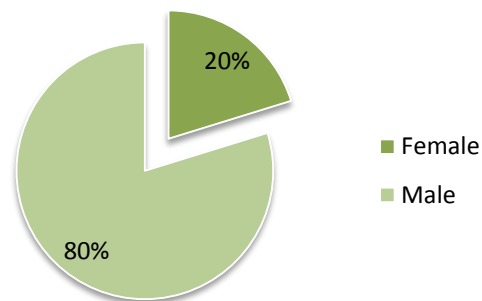
Org	Job Class	#EE	Hrs/Wk	# Wks	Hours	FTE's
A2	Temp Laborer	2	40	26	2,080	1.00
F1	Temp Clerical	1	40	11	440	0.21
I1	Temp Clerical	1	50	1	50	0.02
		4			2,570	1.24
Total District & Agency		26			15,156	7.29

Headcount – All Regular Employees

Union vs Non-Union



Gender



Work Force Management

In 2018, two (2) employees will reach age 65, the normal retirement age. That would bring the total of current employees, at or above 65, to 12.

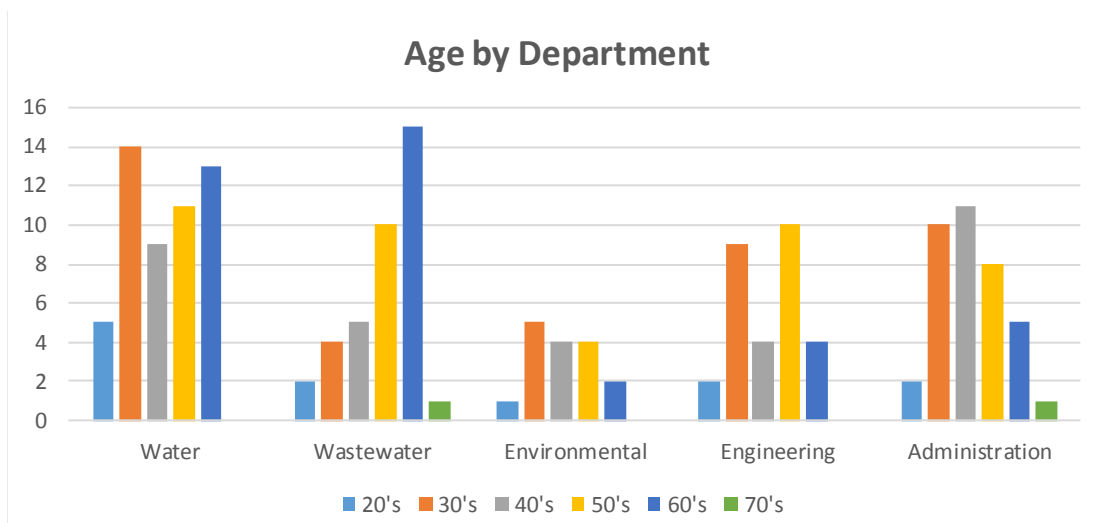
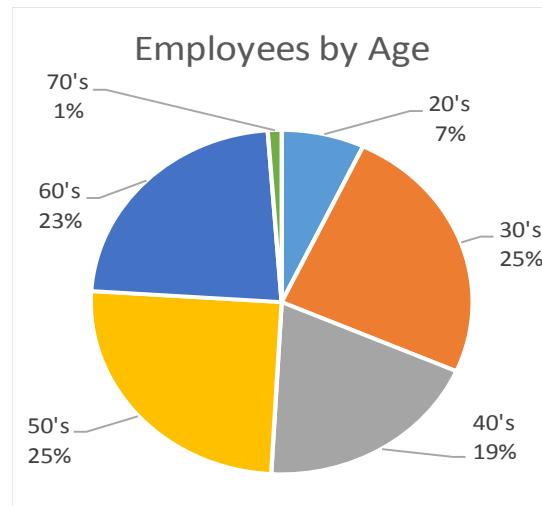
Management has been proactively managing the challenges of baby boomer retirements and the development of promoted personnel and unseasoned new hires.

The Wastewater Department has implemented an Apprentice Program to help educate new hires to the breadth of knowledge needed to operate our facilities, as well as to get exposure to other areas of PWD operations. Documentation, such as procedures for operating the rotary press, has further supported knowledge transfer.

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

technical roles, and foreperson or supervisory roles.

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



Average Length of Service (years)

<u>Water</u>	<u>Wastewater</u>	<u>Environmental</u>	<u>Engineering</u>	<u>Administration</u>	<u>All Depts</u>
17.5	19.7	13.7	17.1	10.8	16.1

Work Force Management (continued)

Employee Development

The District actively promotes skill development by encouraging participation in local, regional and national organizations, and on the job training. Also, a goal of an average of 80 hours of training per employee per year has been established.

Managing Today

To address work force management issues, the District requires all employees' performance be evaluated yearly with an action plan to assist with continuous development. Pay adjustments for non-union employees are based on performance. Non-Union Compensation policy requires that a market survey be conducted every two years to assure we are competitively compensating employees. The non-union market survey was conducted in 2016 with results implemented January 2017.

Travel Budget

The Board of Trustees approves an annual budget for out-of-state and overnight business travel. The General Manager specifically approves all travel requests. The total costs may not exceed the District's total budget without the Board's authorization.

Department	2017 Budget	2018 Budget	Change
Water Services	\$0	\$3,500	\$3,500
Wastewater Services	8,450	9,450	1,000
Environmental Services	7,600	8,150	550
Engineering Services	6,100	8,100	2,000
Administration	<u>28,000</u>	<u>20,500</u>	<u>-7,500</u>
	\$50,150	\$49,700	-\$450

Training Budget

Employee development is comprised of the annual budget for all in-state and out-of-state training events. Employee development costs include the travel budget listed above.

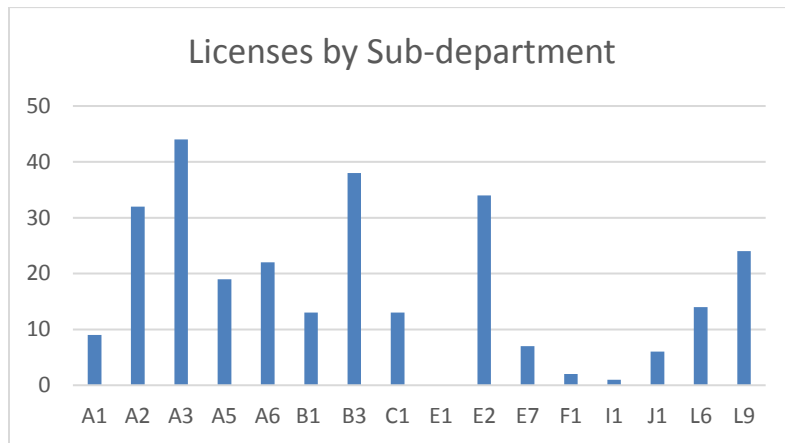
Department	2017 Budget	2018 Budget	Change
Water Services	\$227,269	\$232,013	\$4,744
Wastewater Services	173,208	177,620	4,412
Environmental Services	74,259	73,197	-1,062
Engineering Services	139,058	149,159	10,101
Administration	<u>212,947</u>	<u>208,863</u>	<u>-4,084</u>
	\$826,741	\$840,852	\$14,111

Operating Expense Budget	\$28,502,619	\$29,218,466
Percentage of O&M Budget	2.9%	2.9%

Work Force Management (continued)

Licenses

District employees are required to obtain certification as part of their jobs and are encouraged to obtain additional and higher level certification by offering annual stipends.



<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
C1	FACILITIES SERVICES
E2	PLANNING & DESIGN
E7	INSTRUMENTATION
F1	CUSTOMER SERVICE
G1	INFORMATION SERVICES
H1	FINANCIAL SERVICES
I1	EMPLOYEE SERVICES
J1	BOT & SENIOR MANAGEMENT
L6	WATER/WW LABORATORY
L9	WATER/WW SYSTEMS

BACKFLOW	15
BLDING OPER CERT 1	2
CCST I	3
ELECTRICIAN HELPER	2
GEOLOGIST	0
JOURNEY ELECTRICIAN	1
JOURNEY PLUMBER	1
LAB ANALYSIS CER I	4
LAB ANALYSIS CER II	2
LAW ENF OFFICER CERT	1
MAINE PROF ENGINEER	9
MASTER ELECTRICIAN	6
ME BAR MEMBER	1
ME EMER MED SER(EMS)	0
ME ENGIN INTERN CERT	0
ME WELDING	1
NOTARY PUBLIC	2
PLUMBER INSPECT LIC	5
PROJECT MANAGE CERT	0
PROPANE/GAS TECH	1
VEHICLE INSPECTOR	2
WASTEWATER COLL I	4
WASTEWATER COLL II	30
WASTEWATER COLL III	3
WASTEWATER COLL IV	14
WASTEWATER TREAT I	2
WASTEWATER TREAT II	12
WASTEWATER TREAT III	11
WASTEWATER TREAT IV	0
WASTEWATER TREAT V	10
WATER DIST I	8
WATER DIST II	25
WATER DIST III	8
WATER DIST IV	32
WATER TREAT/SYS I	16
WATER TREAT/SYS II	22
WATER TREAT/SYS III	2
WATER TREAT/SYS IV	21
	278

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 2018 as our forum of daily information sharing, and document management across PWD. Developing and implementing a common methodology for cataloging documents to improve knowledge retrieval/sharing, and reducing document redundancy are significant areas of growth this year, ultimately involving every employee.

An organization's total compensation package is a key factor in establishing our competitive posture in the employment market, and employee satisfaction. As with most organizations, we continue to monitor any modifications to the Affordable Care Act for impact on our health plan.

Employee Satisfaction Survey

A survey of employees on the work climate is conducted every other year. A new survey was devised and outsourced to utilize the expertise of Market Decisions Research. 80% of employees across PWD participated in the survey and the results have been analyzed. Employee loyalty was reflected in the fact that two out of five employees reported that they are extremely likely to recommend PWD as a workplace. Amongst our highest rankings are:

- Approval for the General Manager, Carrie Lewis, with 94% of the employees saying she has had a positive impact on PWD.
- Over 90% of participants confirmed that they know how to do their jobs safely and have the materials and equipment to do so. Employees confirmed that they know how and where to report any safety hazards and would not hesitate to do so.
- The employees also ranked our health plan as an important benefit that they consider to be good or better than other similar organizations.
- 80% agreed that PWD provides excellent customer service, with 50% strongly affirming this.

New this year, was the inclusion of Gallup Poll questions as a point of comparison to the overall working population in the United States. From the responses to these questions, 45% of PWD employees are highly engaged as compared to 31% of the general working population. The overall engagement index ratio for PWD is 2.8. This means that employees at PWD are 2.8 times more likely to be engaged rather than disengaged. The factors within that ratio were the responses by participants that they had the materials and equipment to do their jobs safely (4.56); employees said that they know what is expected of them (4.25); and the mission/purpose of PWD makes them feel that their jobs are important.

Employee Recognition

General Manager's Award

The 2016 General Manager's Awards went to **Susan Jasper** and **Steve Libby**. Each year, the general manager typically selects one employee from the previous years' Inspire award recipients to recognize with the General Manager Award. Last year there were two.



2016 Inspire Awards

Tim McMullin, Project Engineer

Steve Libby, Distribution System Foreperson

James Galasyn, Environmental Scientist

Elaine Gervais, Business Systems Analyst

Susan Jasper, Environmental Scientist

Dennis Welch, Operations Foreperson –
Systems

Carrie Walker, Executive Administrative
Assistant

Ryan Staples, Wastewater Maintenance
Operator

Mary Calder, Customer Service Coordinator

Matt Lane, Water Treatment Plant Systems
Operator

Marc Collins, Purchasing Agent/Buyer

Steve Picard, Senior Wastewater Plant Operator

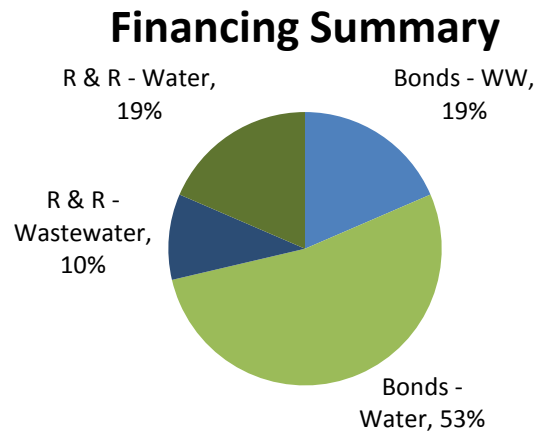
Jaret Cox, Water Systems Operator

Eric Hyland, Facility Maintenance Technician

Melissa Morris, Asset Management Technician

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 2018 financing options (source of funds) are noted in the chart below. The funds will be used to fund \$13.8 million in water projects and \$5.5 million in wastewater projects.



Annual Fund Operating Budget

The annual budget includes the impact of issuing \$13.2 million of debt and \$3.7 million in contributions to the renewal and replacement funds. All the funds are below the Board target maximum. The projects financed have minimal impact to the operating budget. Most of the projects address aging assets so related maintenance costs of those assets will be lower.

The transportation debt service and renewal & replacement contributions are allocated to funds and departments through an hourly rate and are included in the transportation - internal line item.

	2017 Budget	2018 Budget	\$ Change
Debt Service Principal, Interest & Related Expense	\$8,257,875	8,905,557	\$647,682
Debt Service - Allocated	606,177	672,225	66,048
Annual Debt Service	8,864,052	9,577,782	713,730
Renewal & Replacement - Water - General	2,800,000	2,600,000	(200,000)
Renewal & Replacement - Wastewater	1,271,482	1,385,651	114,169
Renewal & Replacement - Multi-Fund Assets	590,000	850,000	260,000
Renewal & Replacement - Funds	4,661,482	4,835,651	174,169
Renewal and Replacement - Transportation	380,000	320,000	(60,000)
Annual Renewal and Replacement Contributions	5,041,482	5,155,651	114,169
Total Capital / Finance	13,905,534	14,733,433	827,899

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 2018 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 2018 budget assumes that 1% of the proposed 3.82% rate adjustment will be used to fund the reserve and will pay for the debt service of the proposed \$2 million bond. The tentative plan is to issue a \$2 million bond each of the next 10 years and raise water rates an additional 1% each year.

Bond Options

The District issues bonds either directly to the market or through the Maine Municipal Bond Bank (MMBB). For larger projects, typically greater than \$10 million, the District considers issuing directly to the market. For smaller projects, the most cost effective option is to issue through MMBB.

MMBB has three different programs – General Bond, Drinking Water SRF (State Revolving Fund) and Clean Water SRF programs. General Bond issues are done twice a year at tax-exempt market rates. The SRF programs have a more flexible closing date and typically result in an interest rate 2% less than market. For qualifying projects, part of the principal may be forgiven. Projects financed through the SRF are competitively awarded by the State of Maine's Department of Human Services (water projects) or Department of Environmental Protection (wastewater projects). Those projects need to comply with certain procurement standards.

Bond Financing (continued)

The current water bond ratings by Moody's and Standard & Poor's ratings are Aa3 and AA, respectively. Moody's bond ratings range from AAA (highest quality) to C (lowest quality) and apply a number qualifier (1-high, 2-mid and 3-low) for each letter range. Standard & Poor's top four bond ratings (AAA, AA, A and BBB) generally are regarded as eligible for bank investment (AAA is highest rating). The latest rating for both was in June 2017. Moody's noted the District's recent deregulation from the Maine Public Utilities Commission. Additionally, the District's sizable and wealthy service area, as well as its strong liquidity and sound debt service coverage supported by annual rate increases were factors. In addition to the items Moody noted, S&P noted the District's sound system operations with virtually unlimited water supply and good financial flexibility due to the affordability of the water rates. Moody's noted as a challenge the weak legal security. The weak legal security references that the District has to be in default before evoking the municipalities' 'double barrel' general taxes cure.

The current Portland Fund wastewater bond rating by Moody's and Standard & Poor's ratings (June are AA1 and AA, respectively). Because the municipalities are ultimately responsible for wastewater debt, both firms used Portland's general obligation bond rating. Both noted the relatively strong regional economy, diverse tax base and above average socioeconomics factors along with the strong city's financial performance.

Maine Municipal Bond Bank

The Maine Municipal Bond Bank was created in 1972 by the Maine State Legislature. The agency has an immense history of providing Maine's cities, towns, school systems, water and sewer districts, and other governmental entities access to low cost capital funds through the sale of its highly rated tax-exempt bonds. Established as an independent agency, the Bond Bank is administered by a board of commissioners appointed by the Governor. The Bond Bank works closely with its municipal clientele to provide unique, cost effective and competitive financing programs.



GENERAL BOND RESOLUTION PROGRAM

For municipalities, school districts, water districts, sewer districts and other local government requesting loan financing through the General Resolution Program. Under this tax-exempt bond financing program, the proposed debt will be paid from a General Resolution pledge of the municipality or municipalities. [Click here to learn more about the approval and financing process of this program.](#)



CLEAN WATER SRF PROGRAM

Created by the Clean Water Act of 1972, the Maine Municipal Bond Bank serves as financial manager of the Clean Water State Revolving Loan Fund in cooperation with the Maine Department of Environmental Protection. [Click here to learn more about the approval and financing process of this program.](#)



DRINKING WATER SRF PROGRAM

Created by the Safe Drinking Water Act of 1996, the Maine Municipal Bond Bank serves as financial manager of the Drinking Water State Revolving Loan Fund in cooperation with the Maine Department of Human Services. [Click here to learn more about the approval and financing process of this program.](#)

Bond Financing (continued)

Bond Limits

The District has no legal limits of debt. A board approved policy establishes a target maximum level of debt service to 35% of total fund budget and minimum debt service ratio of 1.25. The table indicates the current status and projected status. The projected status is based on the projection included at the end of the Revenue section and includes bond financed capital projects as noted in the 5-year capital plan in the Capital Expenditures section.

The Gorham & Windham fund exceeds the debt service target due to a 2009 project requested by both municipalities. The project connected the Little Falls area to the Westbrook Regional Treatment Facility.

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

Funds	2016	2017	2018	2019	2020	2021
Water	20%	22%	25%	26%	26%	26%
Wastewater						
Cape Elizabeth	14%	15%	15%	17%	22%	22%
Cumberland	25%	33%	34%	35%	36%	35%
Gorham	37%	35%	35%	35%	38%	44%
Portland	19%	21%	21%	21%	23%	23%
Westbrook	18%	18%	20%	24%	27%	31%
Windham	41%	41%	40%	40%	42%	47%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2016	2017	2018	2019	2020	2021
Water	2.01	1.69	1.61	1.57	1.49	1.42
Wastewater						
Cape Elizabeth	1.47	1.44	1.52	1.48	1.32	1.35
Cumberland	1.29	1.10	1.15	1.14	1.13	1.14
Gorham	1.43	1.17	1.26	1.22	1.23	1.16
Portland	1.70	1.33	1.35	1.34	1.21	1.28
Westbrook	2.02	1.86	1.75	1.58	1.48	1.40
Windham	1.37	1.15	1.27	1.27	1.22	1.20

Water & Wastewater Funds Debt Service

Long-Term Debt Principal & Interest

The District has \$6,946,888 and \$2,253,283 of principal and interest payments in 2018. Of the total, \$6,492,950 and \$2,074,596 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 \$453,938 and interest of \$178,687). 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.

Administrative Fees

Maine Municipal Bond Bank (MMBB) bonds issued under the Drinking Water State Revolving Fund (DWSRF) for Water and the State Revolving Fund (SRF) for Wastewater 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. Totals fees in 2018 are budgeted at \$169,877.

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 2018 is estimated to be \$91,000.

Premiums & Deferred Outflow

The District has received premiums on bonds issued directly to the market. These premiums are recognized over the life of the bonds as a reduction in interest expense. In addition, a bond refunding was done in 2016 that resulted in a deferred outflow being added to the District's balance sheet. That outflow is being amortized over the remaining life of those bonds as an addition to interest expense. The net impact of these items on the 2018 Budget is a reduction of debt service expense of \$197,276.

Contracted Debt Service & Intra-Fund Note

The Cumberland Wastewater Fund contracts with the Town of Falmouth for the use of treatment and wastewater pump stations. Contracted Debt Service expense are payments made by Cumberland to reimburse Falmouth for debt issued to support the services provided, that cost in 2018 is \$308,046. 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 2018 principal (\$13,240) and interest expense (\$5,964) totaling \$19,204 are budgeted for 2018.

Water & Wastewater Funds Debt Service (continued)

Summary of Debt Service

	Principal	Interest	MMBB & DEP Admin Fees	Debt Issuance Expense	Premium / Def Outflow	Contracted/ Intrafund Note	Debt Service Total
Direct Charges							
Water Fund:							
Water General Assets	2,533,231	1,152,791	37,530	25,000	(165,815)	-	3,582,737
Water Capital Reserve	<u>772,500</u>	<u>244,479</u>	<u>-</u>	<u>20,000</u>	<u>-</u>	<u>-</u>	<u>1,036,979</u>
Sub-Total Water	3,305,731	1,397,270	37,530	45,000	(165,815)	-	4,619,716
Wastewater:							
Cape Elizabeth	165,600	44,197	6,926	5,000	-	-	221,723
Cumberland	6,250	791	352	-	-	308,046	315,439
Falmouth	238,000	45,347	14,171	-	-	-	297,518
Gorham	303,869	66,742	14,839	-	925	-	386,375
Portland	2,011,845	360,366	79,135	19,000	(12,700)	-	2,457,646
Westbrook	359,470	139,475	11,767	22,000	-	(13,240)	519,472
Windham	<u>102,185</u>	<u>20,408</u>	<u>5,157</u>	<u>-</u>	<u>-</u>	<u>19,204</u>	<u>146,954</u>
Sub-Total Wastewater	3,187,219	677,326	132,347	46,000	(11,775)	314,010	4,345,127
Total Direct	6,492,950	2,074,596	169,877	91,000	(177,590)	314,010	8,964,843
Meters Allocated							
Water Fund	277,084	109,904	-	-	(11,627)	-	375,361
Wastewater:							
Cape Elizabeth	11,540	4,395	-	-	(569)	-	15,366
Cumberland	5,288	2,041	-	-	(250)	-	7,079
Gorham	8,636	3,328	-	-	(408)	-	11,556
Portland	86,670	33,774	-	-	(3,920)	-	116,524
Westbrook	21,657	8,420	-	-	(990)	-	29,087
Windham	<u>350</u>	<u>135</u>	<u>-</u>	<u>-</u>	<u>(10)</u>	<u>-</u>	<u>475</u>
Sub-Total Wastewater	134,141	52,093	-	-	(6,147)	-	180,087
Contracted Services:							
Scarborough	4,704	1,866	-	-	(198)	-	6,372
South Portland	<u>38,009</u>	<u>14,824</u>	<u>-</u>	<u>-</u>	<u>(1,714)</u>	<u>-</u>	<u>51,119</u>
Sub-Total Contracted	42,713	16,690	-	-	(1,912)	-	57,491
Total Allocated	453,938	178,687	-	-	(19,686)	-	612,939
Direct & Allocated	6,946,888	2,253,283	169,877	91,000	(197,276)	314,010	9,577,782

Debt Service Summary

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

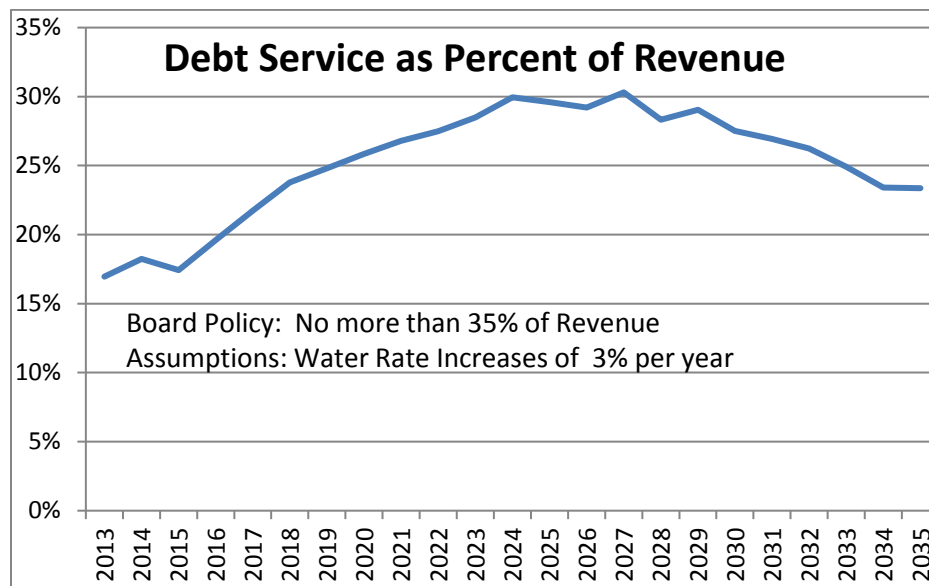
Direct Debt Service – These charges are related to assets belonging to the specific fund such as treatment plants, pump stations, mains, etc.

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

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

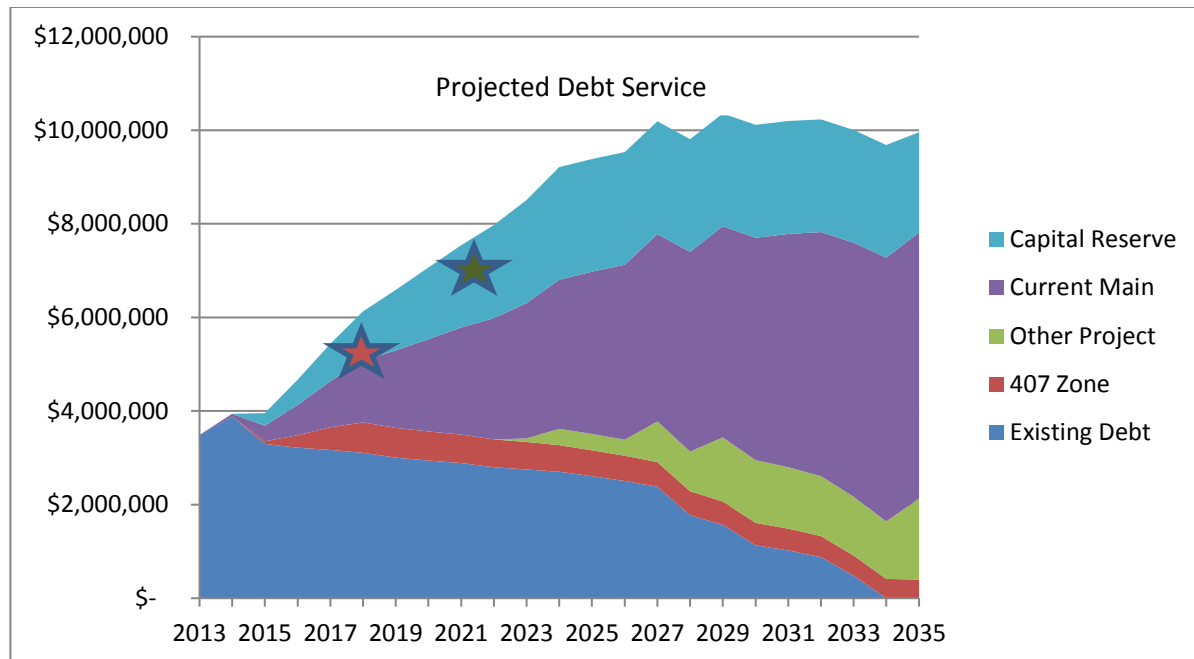
	Direct	Allocated	Total
Water Fund	4,619,716	375,361	4,995,077
Wastewater:			
Cape Elizabeth	221,723	15,366	237,089
Cumberland	315,439	7,079	322,518
Falmouth	297,518	-	297,518
Gorham	386,375	11,556	397,931
Portland	2,457,646	116,524	2,574,170
Westbrook	519,472	29,087	548,559
Windham	146,954	475	147,429
Sub-Total Wastewater	4,345,127	180,087	4,525,214
Contracted Services:			
Scarborough	-	6,372	6,372
South Portland	-	51,119	51,119
Sub-Total Contracted	-	57,491	57,491
	8,964,843	612,939	9,577,782

Long-Term Water Fund Target – established in 2013. Projected 2018-2021 percent is 25-26%.



Water Debt

The Water Fund has significant future bond financing needs including completing the 407 zone system upgrade and main renewals. In 2011, the Board adopted the policy to double the investment in main renewal by incrementally increasing the amount spent by \$500,000 until reaching an annual level of \$4 million in 2016. Starting in 2014, an additional annual investment of \$2 million was bonded to pay for main renewal and be funded through the capital reserve. Other major projects include the installation of new computer system and meter reading system.



★ The 2018 Budget requests \$5 million of debt service, belong the long-term plan

★ The updated multi-year projection indicates debt service payments will be \$7.4 million in 2021, \$100,000 below 2013 target.

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.

2017 bond issues may appear in the proposed section if the target issue date is after the publication date of 2018 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2017 Balance	2018 Principal	Yr End 2018 Balance	2018 Interest Exp	MMBB/DEP Admin Fee	Issue Cost	PUC Docket#
Existing Debt Water General LTD												
10/27/2005	WTR05-02	General Assets	2025	3.2500% - 5.0000%	\$900,000	\$360,000	\$45,000	\$315,000	\$12,971			2005-488
10/26/2006	WTR06-01	General Assets	2026	3.0000% - 5.0000%	\$1,500,000	\$675,000	\$75,000	\$600,000	\$19,426			2006-510
10/30/2008	WTR08-01	General Assets	2028	2.0750% - 5.5750%	\$1,500,000	\$825,000	\$75,000	\$750,000	\$38,317			2008-360
04/01/2009	WTR09-01	General Assets (407 Zone)	2028	1.0500% - 1.0500%	\$1,598,500	\$879,175	\$79,925	\$799,250	\$9,092	\$4,458		2008-360 AMENDED
08/28/2009	WTR09-04	General Assets (ARRA)	2029	0.0000% - 0.0000%	\$2,991,066	\$1,794,640	\$149,553	\$1,645,086	\$0	\$7,478		2009-128
08/28/2009	WTR09-05	General Assets (ARRA)	2029	0.0000% - 0.0000%	\$163,953	\$98,372	\$8,198	\$90,174	\$0	\$410		2009-128
05/27/2010	WTR10-02	General Assets (RZEDB)	2030	4.4730% - 5.7460%	\$400,000	\$325,000	\$25,000	\$300,000	\$9,413			2010-62
11/01/2010	WTR10-03	General Assets (DWSRF)	2030	1.0000% - 1.0000%	\$902,500	\$586,625	\$45,125	\$541,500	\$5,791	\$2,550		2010-62
10/27/2011	WTR11-01	General Assets	2031	0.5000% - 5.5000%	\$2,300,000	\$1,610,000	\$115,000	\$1,495,000	\$43,897			2011-266
05/01/2012	WTR12-03	Ozone UV Design & Forest Ave (DWSRF)	2032	1.0000% - 1.0000%	\$1,130,000	\$847,500	\$56,500	\$791,000	\$8,098	\$3,235		2011-266
10/25/2012	WTR12-01	General Assets	2032	1.4800% - 3.7060%	\$2,000,000	\$1,500,000	\$100,000	\$1,400,000	\$41,761			2012-357
05/01/2013	WTR13-01	Ozone-UV Construction Phase 1 (DWSRF)	2032	1.0000% - 1.0000%	\$2,850,000	\$2,250,000	\$150,000	\$2,100,000	\$22,250	\$8,625		2011-266
05/23/2013	WTR13-04	General Assets	2033	1.3400% - 3.7000%	\$1,428,000	\$1,142,400	\$71,400	\$1,071,000	\$31,850			2013-00167
11/04/2013	WTR13-06	Ozone-UV Construction Phase 2	2034	3.0000% - 4.2500%	\$8,000,000	\$6,800,000	\$400,000	\$6,400,000	\$260,000			2011-266
11/15/2013	WTR13-05	General Assets (DWSRF)	2033	1.0700% - 1.0700%	\$1,072,000	\$857,600	\$53,600	\$804,000	\$9,081	\$3,139		2013-00167
06/30/2014	WTR14-01	General Assets	2034	3.0000% - 3.5000%	\$2,541,000	\$2,150,000	\$130,000	\$2,020,000	\$60,857			2014-00093
05/14/2015	WTR15-01	General Assets (DWSRF) Scott Dyer Rd	2034	0.1500% - 0.1500%	\$459,000	\$391,024	\$22,727	\$368,297	\$575	\$1,166		2014-38
06/25/2015	WTR15-04	General Assets - Water Main Renewal	2035	3.0000% - 3.2500%	\$3,230,000	\$2,900,000	\$165,000	\$2,735,000	\$88,175			2015-00051
06/25/2015	WTR15-05	General Assets - Ozone Destruct	2035	3.0000% - 3.2500%	\$500,000	\$450,000	\$25,000	\$425,000	\$13,688			2015-00051
12/04/2015	WTR15-06	Water Main Renewal - Gray Road	2035	1.0000% - 1.0000%	\$270,000	\$243,000	\$13,500	\$229,500	\$2,396	\$797		2015-00051
06/20/2016	WT16-04	General Assets - Water Main Renewal	2036	3.0000% - 4.0000%	\$385,000	\$365,000	\$20,000	\$345,000	\$12,500			
06/20/2016	WT16-06	407 Zone Design	2036	3.0000% - 4.0000%	\$1,830,000	\$1,735,000	\$95,000	\$1,640,000	\$59,775			
06/20/2016	WTR16-09	General Assets 2007 Refi	2027	3.0000% - 4.0000%	\$3,034,938	\$3,010,438	\$346,063	\$2,664,375	\$101,782			
09/28/2016	WTR16-10	General Assets - Thorton Heights Phase 3	2036	1.0000% - 1.0000%	\$1,128,979	\$1,106,344	\$53,162	\$1,053,182	\$10,842	\$3,211		
09/28/2016	WTR16-11	General Assets Westbrook St DWSRF	2036	1.0000% - 1.0000%	\$566,362	\$540,641	\$25,979	\$514,662	\$5,255	\$1,563		
07/18/2017	WTR17-05	General Assets - Water Main Renewal	2037	3.0000% - 5.0000%	\$3,725,000	\$3,725,000	\$187,500	\$3,537,500	\$135,000			
Total Existing Debt Water General LTD						\$37,167,757	\$2,533,231	\$34,634,526	\$1,002,791	\$36,630		
Proposed Water General LTD												
05/01/2018	WT_407 Zone PS_7	407 Zone Pump Station SRF	2038	3.0000% - 3.0000%	\$2,000,000	\$0	\$0	\$2,000,000	\$40,000	\$900		
05/01/2018	WT_Project ABC_1	Hansen Asset System Replacement	2028	5.0000% - 5.0000%	\$1,000,000	\$0	\$0	\$1,000,000	\$33,333		\$10,000	
05/01/2018	WT_Water Mains 2018_2	Water Main Renewal 2018	2038	5.0000% - 5.0000%	\$2,000,000	\$0	\$0	\$2,000,000	\$66,667		\$10,000	
11/01/2018	WT_WaterMainSRF 2018	Water Main Replacement 2018 SRF	2038	3.0000% - 3.0000%	\$2,000,000	\$0	\$0	\$2,000,000	\$10,000		\$5,000	
Total Proposed Debt Water General LTD						\$0	\$0	\$7,000,000	\$150,000	\$900	\$25,000	
Total Existing and Proposed Debt Water General LTD						\$37,167,757	\$2,533,231	\$41,634,526	\$1,152,791	\$37,530	\$25,000	
Existing Debt Water Capital Reserv												
06/30/2014	WTR14-02	Water Assets - Capital Reserve	2024	3.0000% - 3.0000%	\$2,000,000	\$1,400,000	\$200,000	\$1,200,000	\$47,900			2014-00093
06/25/2015	WTR15-03	Water Assets - Capital Reserve	2025	3.0000% - 3.0000%	\$2,000,000	\$1,600,000	\$200,000	\$1,400,000	\$47,000			2015-00051
06/20/2016	WT16-05	Water Assets - Capital Reserve	2026	3.0000% - 4.0000%	\$1,830,000	\$1,645,000	\$185,000	\$1,460,000	\$55,725			
07/18/2017	WTR17-06	Water Assets - Capital Reserve	2027	3.0000% - 5.0000%	\$1,875,000	\$1,875,000	\$187,500	\$1,687,500	\$77,188			
Total Existing Debt Water Capital Reserve						\$6,520,000	\$772,500	\$5,747,500	\$227,812			

Water Funds Long-Term Debt

(continued)

Long-Term Debt Detail: (continued)

The table below is a list of all outstanding water fund bonds. A significant amount of debt will be paid off in the current year and will mitigate the debt service of the new bonds scheduled to be issued.

2017 bond issues may appear in the proposed section if the target issue date is after the publication date of 2018 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest		Original Issue Principal	Yr End 2017 Balance	2018 Principal	Yr End 2018 Balance	2018 Interest Exp	MMBB/DEP Admin Fee	Issue Cost	PUC Docket#
Proposed Water Capital Reserve													
11/01/2018	WT_GA2018 CR_1		Water General Assets - Capital Reserve	2028	5.0000% - 5.0000%	\$2,000,000	\$0	\$0	\$2,000,000	\$16,667		\$20,000	
Total Proposed Debt Water Capital Reserve							\$0	\$0	\$2,000,000	\$16,667	\$0	\$20,000	
Total Existing and Proposed Debt Water Capital Reserve							\$6,520,000	\$772,500	\$7,747,500	\$244,479	\$0	\$20,000	
Existing Debt Meters Allocated													
05/28/2009	WTR09-02	Meters	2029	2.0800% - 5.5800%	\$4,519,800	\$2,711,880	\$225,990	\$2,485,890	\$109,913				2006-403
05/28/2009	WTR09-03	Sub-Meters	2029	0.0000% - 5.5800%	\$180,200	\$108,120	\$9,010	\$99,110	\$4,382				2006-403
06/20/2016	WTR16-07	Meters 2007 Refi	2027	3.0000% - 4.0000%	\$1,734,250	\$1,720,250	\$197,750	\$1,522,500	\$58,161				
06/20/2016	WTR16-08	Submeters 2007 Refi	2027	3.0000% - 4.0000%	\$185,813	\$184,313	\$21,188	\$163,125	\$6,232				
Total Existing Debt Meters Allocated							\$4,724,563	\$453,938	\$4,270,625	\$178,687			
Total Existing and Proposed Water Debt							\$48,412,320	\$3,759,669	\$53,652,651	\$1,575,958	\$37,530	\$45,000	

Wastewater Funds Long-Term Debt

Long-Term Debt Detail:

The tables below contain a list of all outstanding debt for Cape Elizabeth, Cumberland, Falmouth, Gorham and Portland wastewater funds. Bonds for the Westbrook Regional Wastewater Treatment Plant and related interception assets are proportionately split between Westbrook, Windham and Gorham.

2017 bond issues may appear in the proposed section if the target issue date is after the publication date of the 2018 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue	Yr End 2017	2018	Yr End 2018	Accrued 2018 Interest & Fees			MMBB/DEP	Issue Cost
					Principal	Balance	Principal	Balance	Interest Exp	DEP Mgt Fee	Interest Expense	Admin Fee	
Existing Debt Cape Elizabeth													
10/30/2008	WW08-03	Cape - Generators	2028	2.0750% - 5.5750%	\$95,000	\$52,250	\$4,750	\$47,500	\$2,427	\$0	\$2,427		
12/16/2011	WW11-01	CESO Treatment / Spurwink (SRF)	2031	1.0000% - 1.0000%	\$2,430,000	\$1,701,000	\$121,500	\$1,579,500	\$16,808	\$0	\$16,808	\$6,926	
10/25/2012	WW12-03	Cape Ottawa Rd CSO Studies / Treatment	2032	1.4800% - 3.7060%	\$160,000	\$120,000	\$8,000	\$112,000	\$3,341	\$0	\$3,341		
05/28/2015	WW15-02	Wastewater CE Garden Lane	2035	1.5600% - 3.8900%	\$240,000	\$216,000	\$12,000	\$204,000	\$6,442	\$0	\$6,442		
05/25/2017	WW17-03	Cape Elizabeth WW Projects	2037	1.2600% - 3.9180%	\$315,000	\$315,000	\$15,750	\$299,250	\$8,860	\$0	\$8,860		
Total Existing Debt Cape Elizabeth						\$2,404,250	\$162,000	\$2,242,250	\$37,877	\$0	\$37,877	\$6,926	
Proposed Cape Elizabeth													
11/01/2017	WW_CapeWildwoodPS_3	CE Wildwood PS Upgrade	2037	5.0000% - 5.0000%	\$72,000	\$72,000	\$3,600	\$68,400	\$3,570	\$0	\$3,570		
09/01/2018	WW_CapeHeadworks_1	CE Headworks & Ventilation SRF	2038	3.0000% - 3.0000%	\$275,000	\$0	\$0	\$275,000	\$2,750	\$0	\$2,750		\$5,000
Total Proposed Debt Cape Elizabeth						\$72,000	\$3,600	\$343,400	\$6,320	\$0	\$6,320		\$5,000
Total Existing and Proposed Debt Cape Elizabeth						\$2,476,250	\$165,600	\$2,585,650	\$44,197	\$0	\$44,197	\$6,926	\$5,000
Existing Debt Cumberland													
12/22/2006	WW06-01	Cumberland -Tuttle Pump Station (SRF)	2026	1.4200% - 1.4200%	\$125,000	\$56,250	\$6,250	\$50,000	\$791	\$0	\$791	\$352	
Total Existing Debt Cumberland						\$56,250	\$6,250	\$50,000	\$791	\$0	\$791	\$352	
Existing Debt Falmouth													
05/01/2016	WW16-03	Mill Creek PS SRF	2036	1.0000% - 1.0000%	\$4,000,000	\$3,800,000	\$200,000	\$3,600,000	\$38,000	\$0	\$38,000	\$11,900	
03/21/2017	WW17-02	Falmouth Mill Creek PS Phase 2 SRF	2037	1.0000% - 1.0000%	\$760,000	\$760,000	\$38,000	\$722,000	\$7,347	\$0	\$7,347	\$2,271	
Total Existing Debt Falmouth						\$4,560,000	\$238,000	\$4,322,000	\$45,347	\$0	\$45,347	\$14,171	
Existing Debt Gorham													
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$78,120	\$18,994	\$3,906	\$15,088	\$213	\$0	\$213	\$63	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$73,185	\$21,802	\$3,659	\$18,143	\$221	\$0	\$221	\$140	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS Upgrades (SRF)	2025	1.6300% - 1.6300%	\$252,000	\$100,800	\$12,600	\$88,200	\$1,626	\$0	\$1,626	\$712	
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades SRF	2028	2.2000% - 5.5000%	\$50,400	\$27,720	\$2,520	\$25,200	\$1,225	\$0	\$1,225		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens SRF	2029	2.0750% - 5.5750%	\$474,672	\$284,803	\$23,734	\$261,070	\$13,577	\$0	\$13,577		
01/15/2009	WW09-01	Little Falls Conveyance (SRF)	2028	1.4400% - 1.4400%	\$4,258,208	\$2,365,671	\$215,061	\$2,150,610	\$33,291	\$0	\$33,291	\$12,456	
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$253,475	\$139,411	\$12,674	\$126,738	\$1,362	\$0	\$1,362	\$703	
05/28/2009	WW09-04	Little Falls Conveyance	2029	2.0800% - 5.5800%	\$233,954	\$140,373	\$11,698	\$128,675	\$5,689	\$0	\$5,689		

Wastewater Funds Long-Term Debt

(continued)

Long-Term Debt Detail:

(continued)

The tables below contain a list of all outstanding debt for Cape Elizabeth, Cumberland, Falmouth, Gorham and Portland wastewater funds. Bonds for the Westbrook Regional Wastewater Treatment Plant and related interception assets are proportionately split between Westbrook, Windham and Gorham.

2017 bond issues may appear in the proposed section if the target issue date is after the publication date of the 2018 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue	Yr End 2017	2018	Yr End 2018	Accrued 2018 Interest & Fees			MMBB/DEP	Issue Cost
					Principal	Balance	Principal	Balance	Interest Exp	DEP Mgt Fee	Interest Expense	Admin Fee	
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$52,360	\$34,034	\$2,618	\$31,416	\$336	\$0	\$336	\$148	
Total Existing Debt Gorham						\$3,133,608	\$288,469	\$2,845,138	\$57,540	\$0	\$57,540	\$14,223	
Proposed Gorham													
12/01/2017	WW_Sludge Dewatering_4	WGWWTF Sludge Dewatering SRF	2037	3.0000% - 3.0000%	\$308,000	\$308,000	\$15,400	\$292,600	\$9,202	\$0	\$9,202	\$616	
Total Proposed Debt Gorham						\$308,000	\$15,400	\$292,600	\$9,202	\$0	\$9,202	\$616	
Total Existing and Proposed Debt Gorham						\$3,441,608	\$303,869	\$3,137,738	\$66,742	\$0	\$66,742	\$14,839	
Existing Debt Portland													
10/26/2001	WW01-01	Peaks Ryefield / Seashore Upgrades (SRF)	2021	2.1000% - 2.1000%	\$2,785,000	\$557,000	\$139,250	\$417,750	\$11,210	\$0	\$11,210	\$2,264	
11/01/2001	WW01-02	EETreatment Clarifiers/Screens/Grit Upgrades (SRF)	2021	2.1000% - 2.1000%	\$1,250,000	\$250,000	\$62,500	\$187,500	\$5,031	\$0	\$5,031	\$1,016	
04/01/2003	WW03-01	Refund Issue EETF Clarifiers/Screens/Grit (SRF)	2020	0.0000% - 4.0590%	\$1,615,500	\$264,511	\$89,750	\$174,761	\$2,007	\$0	\$2,007	\$1,397	
04/01/2003	WW03-02	Portland Treatment Odor Control (SRF)	2022	0.0000% - 4.2030%	\$5,200,000	\$1,264,301	\$260,000	\$1,004,301	\$14,179	\$0	\$14,179	\$4,178	
11/13/2003	WW03-12	EETF Dewatering/Clarifiers/Screens/Grit (SRF)	2023	0.0000% - 4.4930%	\$1,230,000	\$360,850	\$61,254	\$299,596	\$2,760	\$0	\$2,760	\$2,357	
11/13/2003	WW03-13	EE Treatment Primary Sedimentation & Odor (SRF)	2023	0.0000% - 4.4930%	\$2,000,000	\$598,721	\$100,000	\$498,721	\$7,284	\$0	\$7,284	\$3,832	
12/03/2004	WW04-01	EE Treatment Odor Control (SRF)	2024	1.3300% - 1.3300%	\$375,000	\$131,250	\$18,750	\$112,500	\$1,683	\$0	\$1,683	\$717	
12/03/2004	WW04-02	EE Treatment Dewatering (SRF)	2024	1.3300% - 1.3300%	\$1,740,000	\$609,000	\$87,000	\$522,000	\$7,810	\$0	\$7,810	\$3,329	
12/01/2005	WW05-01	EE Treatment Hypochlorite Upgrade (SRF)	2025	1.6300% - 1.6300%	\$1,900,000	\$760,000	\$95,000	\$665,000	\$12,259	\$0	\$12,259	\$5,369	
04/01/2009	WW09-03	Portland India Pump Station Upgrade (SRF)	2028	1.4700% - 1.4700%	\$5,700,000	\$3,090,934	\$280,994	\$2,809,940	\$44,748	\$0	\$44,748	\$16,322	
11/01/2010	WW10-03	Portland Northeast & Pump Station Upgrades (SRF)	2030	1.0000% - 1.0000%	\$752,200	\$488,930	\$37,610	\$451,320	\$4,827	\$0	\$4,827	\$2,125	
10/27/2011	WW11-02	Portland Pump Station Upgrades	2031	0.5000% - 5.5000%	\$400,000	\$280,000	\$20,000	\$260,000	\$7,634	\$0	\$7,634		
11/04/2013	WW13-02	Peaks Island Sewer Extension	2033	3.0000% - 4.0000%	\$3,000,000	\$2,400,000	\$150,000	\$2,250,000	\$93,750	\$0	\$93,750		
12/04/2015	WW15-07	EEWWTF Aeration Upgrade SRF	2035	1.0000% - 1.0000%	\$2,000,000	\$1,800,000	\$100,000	\$1,700,000	\$17,750	\$0	\$17,750	\$5,900	
07/08/2016	WW16-01	EEWWTF Aeration Phase 2 SRF	2036	1.0000% - 1.0000%	\$7,000,000	\$6,650,000	\$350,000	\$6,300,000	\$65,917	\$0	\$65,917	\$20,825	
07/08/2016	WW16-02	Fore River PS SRF	2036	1.0000% - 1.0000%	\$1,200,000	\$1,140,000	\$60,000	\$1,080,000	\$11,300	\$0	\$11,300	\$3,570	
05/01/2017	WW17-01	EEWWTF Aeration Phase 3 SRF	2036	1.0000% - 1.0000%	\$1,900,000	\$1,895,000	\$99,736	\$1,795,264	\$18,784	\$0	\$18,784	\$5,934	
Total Existing Debt Portland						\$22,540,498	\$2,011,845	\$20,528,653	\$328,933	\$0	\$328,933	\$79,135	
Proposed Portland													
05/01/2018	WW_NortheastPS_2	Northeast Odor Control Upgrades	2038	5.0000% - 5.0000%	\$550,000	\$0	\$0	\$550,000	\$18,333	\$0	\$18,333		\$5,000
09/01/2018	WW_Chlorine Tank SRF_2	Chlorine Contact Tank, Influent Screens SRF	2038	3.0000% - 3.0000%	\$960,000	\$0	\$0	\$960,000	\$9,600	\$0	\$9,600		\$10,000
11/01/2018	WW_IndiaStTideGate_1	India St Tide Gate Replacement	2038	5.0000% - 5.0000%	\$420,000	\$0	\$0	\$420,000	\$3,500	\$0	\$3,500		\$4,000
Total Proposed Debt Portland						\$0	\$0	\$1,930,000	\$31,433	\$0	\$31,433		\$19,000
Total Existing and Proposed Debt Portland						\$22,540,498	\$2,011,845	\$22,458,653	\$360,366	\$0	\$360,366	\$79,135	\$19,000

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.

2017 Bond issues may appear in the proposed section if the target issue date is after the publication date of the 2018 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2017 Balance	2018 Principal	Yr End 2018 Balance	Accrued 2018 Interest & Fees			MMBB/DEP Admin Fee	Issue Cost
									Interest Exp	DEP Mgt Fee	Interest Expense		
Existing Debt Westbrook													
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$284,208	\$69,101	\$14,210	\$54,890	\$775	\$0	\$775	\$228	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$266,254	\$79,317	\$13,313	\$66,005	\$804	\$0	\$804	\$510	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS Upgrades (SRF)	2025	1.6300% - 1.6300%	\$1,316,800	\$526,720	\$65,840	\$460,880	\$8,496	\$0	\$8,496	\$3,721	
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades SRF	2028	2.2000% - 5.5000%	\$183,360	\$100,848	\$9,168	\$91,680	\$4,456	\$0	\$4,456		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens SRF	2029	2.0750% - 5.5750%	\$2,384,641	\$1,430,785	\$119,232	\$1,311,553	\$68,206	\$0	\$68,206		
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$974,925	\$536,209	\$48,746	\$487,463	\$5,240	\$0	\$5,240	\$2,705	
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$113,220	\$73,593	\$5,661	\$67,932	\$726	\$0	\$726	\$320	
12/04/2015	WW15-08	Westbrook CSO Upgrade SRF	2035	1.0000% - 1.0000%	\$1,000,000	\$900,000	\$50,000	\$850,000	\$8,875	\$0	\$8,875	\$2,950	
Total Existing Debt Westbrook						\$3,716,573	\$326,170	\$3,390,402	\$97,578	\$0	\$97,578	\$10,435	
Proposed Westbrook													
12/01/2017	WW_Sludge Dewatering_4	WGWWTF Sludge Dewatering SRF	2037	3.0000% - 3.0000%	\$666,000	\$666,000	\$33,300	\$632,700	\$19,897	\$0	\$19,897	\$1,332	
09/01/2018	WW_DanaCourtUpgrades_	Dana Court WE Upgrades SRF	2038	3.0000% - 3.0000%	\$2,200,000	\$0	\$0	\$2,200,000	\$22,000	\$0	\$22,000		\$22,000
Total Proposed Debt Westbrook						\$666,000	\$33,300	\$2,832,700	\$41,897	\$0	\$41,897	\$1,332.00	\$22,000
Total Existing and Proposed Debt Westbrook						\$4,382,573	\$359,470	\$6,223,102	\$139,475	\$0	\$139,475	\$11,767	\$22,000

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.

2017 Bond issues may appear in the proposed section if the target issue date is after the publication date of the 2018 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue	Yr End 2017	2018	Yr End 2018	Accrued 2018 Interest & Fees			MMBB/DEP	Issue Cost
					Principal	Balance	Principal	Balance	Interest Exp	DEP Mgt Fee	Interest Expense	Admin Fee	
Existing Debt Windham													
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$9,672	\$2,352	\$484	\$1,868	\$26	\$0	\$26	\$8	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$9,061	\$2,699	\$453	\$2,246	\$27	\$0	\$27	\$17	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS Upgrades (SRF)	2025	1.6300% - 1.6300%	\$31,200	\$12,480	\$1,560	\$10,920	\$201	\$0	\$201	\$88	
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades SRF	2028	2.2000% - 5.5000%	\$6,240	\$3,432	\$312	\$3,120	\$152	\$0	\$152		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens SRF	2029	2.0750% - 5.5750%	\$40,687	\$24,412	\$2,034	\$22,378	\$1,164	\$0	\$1,164		
01/15/2009	WW09-01	Little Falls Conveyance (SRF)	2028	1.4400% - 1.4400%	\$1,681,792	\$934,329	\$84,939	\$849,390	\$13,149	\$0	\$13,149	\$4,920	
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$21,600	\$11,880	\$1,080	\$10,800	\$116	\$0	\$116	\$60	
05/28/2009	WW09-04	Little Falls Conveyance	2029	2.0800% - 5.5800%	\$196,046	\$117,627	\$9,802	\$107,825	\$4,767	\$0	\$4,767		
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$4,420	\$2,873	\$221	\$2,652	\$28	\$0	\$28	\$12	
Total Existing Debt Windham						\$1,112,084	\$100,885	\$1,011,199	\$19,631	\$0	\$19,631	\$5,105	
Proposed Windham													
12/01/2017	WW_Sludge Dewatering_4	WGWWTF Sludge Dewatering SRF	2037	3.0000% - 3.0000%	\$26,000	\$26,000	\$1,300	\$24,700	\$777	\$0	\$777	\$52	
Total Proposed Debt Windham						\$26,000	\$1,300	\$24,700	\$777	\$0	\$777	\$52	
Total Existing and Proposed Debt Windham						\$1,138,084	\$102,185	\$1,035,899	\$20,408	\$0	\$20,408	\$5,157	

Capital Reserve – Water

In 2013, a new state law (35-A M.R.S. 6107-A, Funding for infrastructure improvements for water utilities) was enacted. The law allows a water utility to fund future infrastructure improvements through recovery in rates. As required by the law, the Maine Public Utilities Commission adopted a rule (Chapter 675 – Infrastructure Surcharge and Capital Reserve Accounts) that outlines the maximum amount of funds the may be recovered through rates, use of those funds, and reporting requirements.

The maximum dollar amount of funds that may be recovered through rates depends on the size of the utility. Portland Water District is considered a large utility (utilities with revenues greater than \$750,000 are considered large) and therefore the amount of revenue requirement attributed to funding a capital reserve should not exceed either of the following:

1% of Gross Plant (as of 12/31/2016)	\$ 3,015,923
10% of Revenue Requirement (2018 Budget)	\$ 2,342,670

The capital reserve can only be used to pay for the costs of construction associated with the projects identified in the utility's System Infrastructure Assessment Report (SIA) and are related to transmission, distribution, and treatment of water. The District submitted a SIA that identified water mains that need to be replaced due to age or type of material.

SIA Program	Main to be replaced (ft)	Cost per foot	Miles of pipe	Program Cost
A (Cast Iron pipe >100 years old)	559,680	\$225	106 miles	\$126 million
B (Cast Iron pipe 75-100 years old)	443,520	\$225	84 miles	\$100 million
C (Galvanized Iron pipe)	59,136	\$200	11 miles	\$12 million
D (2 ½" diameter Cast Iron pipe)	84,480	\$200	16 miles	\$17 million
Totals			217 miles	\$255 million

The District has chosen to increase each year an additional 1% for 10 years with the revenue reserved to pay the debt service costs of issuing a \$2 million bond each year. The bond proceeds will be used to replace water mains identified in the SIA.

The 2018 budget assumes 1% of the proposed 3.82% water rate adjustment be dedicated to the capital reserve. In 2014, 2015, 2016 and 2017 1% of the rate adjustments were dedicated to the reserve.

	2016 Actual	2017 Budget	2018 Budget
Revenue	619,218	836,796	1,099,268
Expense	516,593	788,202	1,036,980
Annual Charge	102,625	48,594	62,288
Carry Forward	189,113	245,882	395,931
	291,738	294,476	458,219

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.

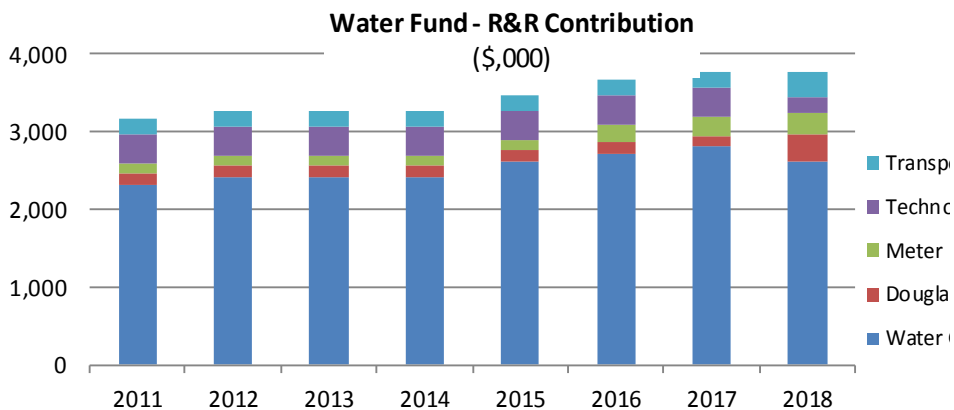
Transportation – These assets are used by all District funds. The charge for the R&R funding is part of the hourly rate of each vehicle (an internal line item).

2018 Contributions:

	Fund	Douglass St	Meters	Technology	Combined*	Total
Water	\$2,600,000	\$232,992	\$189,631	\$111,500	\$534,123	\$3,134,123
Wastewater:						
Cape Elizabeth	100,000	11,124	5,133	7,320	23,577	123,577
Cumberland	72,538	5,544	2,755	4,120	12,419	84,957
Gorham	86,690	8,388	4,437	5,340	18,165	104,855
Portland	720,000	79,380	50,170	57,400	186,950	906,950
Westbrook	370,574	17,136	12,238	12,580	41,954	412,528
Windham	35,849	2,124	232	1,740	4,096	39,945
Contracted Services:						
Falmouth	-	-	-	-	-	-
Scarborough	-	36	3,219	-	3,255	3,255
South Portland	-	3,276	22,185	-	25,461	25,461
R&R - Funds	3,985,651	360,000	290,000	200,000	850,000	4,835,651
R&R - Transportation						320,000
R&R - Total						5,155,651
*Combined = Douglass St + Meters + Technology						

Water Fund - Renewal & Replacement Fund

The District will contribute a total of \$3,770,000 to the renewal and replacement fund in 2018. Similar to the debt service costs, renewal and replacement reserve is directly received from the fund or indirectly through appropriate allocation method from all funds. The Water renewal and replacement contribution is capped at approximately \$4,080,000, which is the estimated depreciation of all water assets, per Maine Public Utility Commission rules. Starting in 2011, the District began to track and reserve balances by different categories of renewal & replacement with part of the general surplus designated to the transportation, technology, meter and Douglass Street building reserves.



	Water General	Douglass Street	Water Meters	Technology	Transportation	Total
Balance 12/31/15	\$3,745,123	\$330,885	-\$11,260	\$453,388	\$585,169	\$5,103,305
Contribution - 2016	\$2,700,000	\$150,000	\$240,000	\$200,000	\$380,000	\$3,670,000
Expenditure	-\$1,277,436	-\$243,558	-\$307,260	-\$94,789	-\$393,965	-\$2,317,007
Balance 12/31/16	\$5,167,687	\$237,327	-\$78,520	\$558,599	\$571,204	\$6,456,297
Contribution - 2017	\$2,800,000	\$150,000	\$240,000	\$200,000	\$380,000	\$3,770,000
Expenditure (Est'd)	-\$2,823,125	-\$400,000	-\$263,500	-\$745,000	-\$375,000	-\$4,606,625
Balance 12/31/17 (Est'd)	\$5,144,562	-\$12,673	-\$102,020	\$13,599	\$576,204	\$5,619,672
Contribution - 2018	\$2,600,000	\$360,000	\$290,000	\$200,000	\$320,000	\$3,770,000
Expenditure (Est'd)	-\$3,325,000	-\$300,000	-\$250,000	-\$200,000	-\$500,000	-\$4,575,000
Balance 12/31/18 (Est'd)	\$4,419,562	\$47,327	-\$62,020	\$13,599	\$396,204	\$4,814,672
Target R&R Balance (1% of Gross Fixed Asset Cost)						\$3,015,923

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 2016, operating surpluses in Cape Elizabeth, Cumberland, Gorham, Portland, Westbrook and Windham were transferred to each fund's R&R fund.

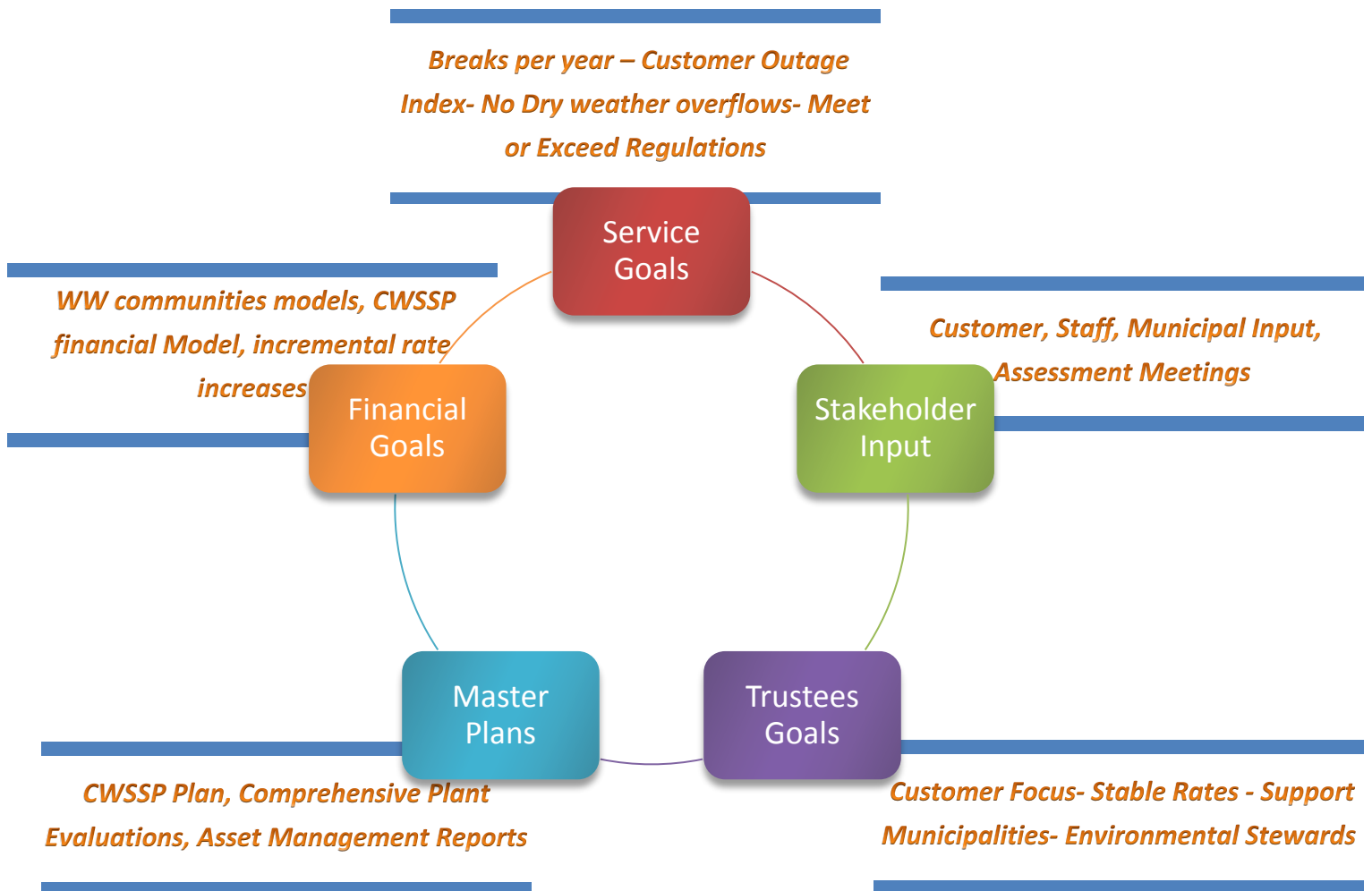
In 2018, R&R contributions stayed the same in Portland. Most other funds had an increase: Cape Elizabeth went from \$80,000 to \$100,000, Cumberland went from \$19,628 to \$72,538, Gorham went from \$54,202 to \$86,690, Westbrook from \$377,652 to \$370,574, and Windham from \$20,000 to \$35,849.

The estimated 2018 expenditures from the R&R fund are based on the 2018 Capital Improvements Budget as outlined in the Capital Expenditure section.

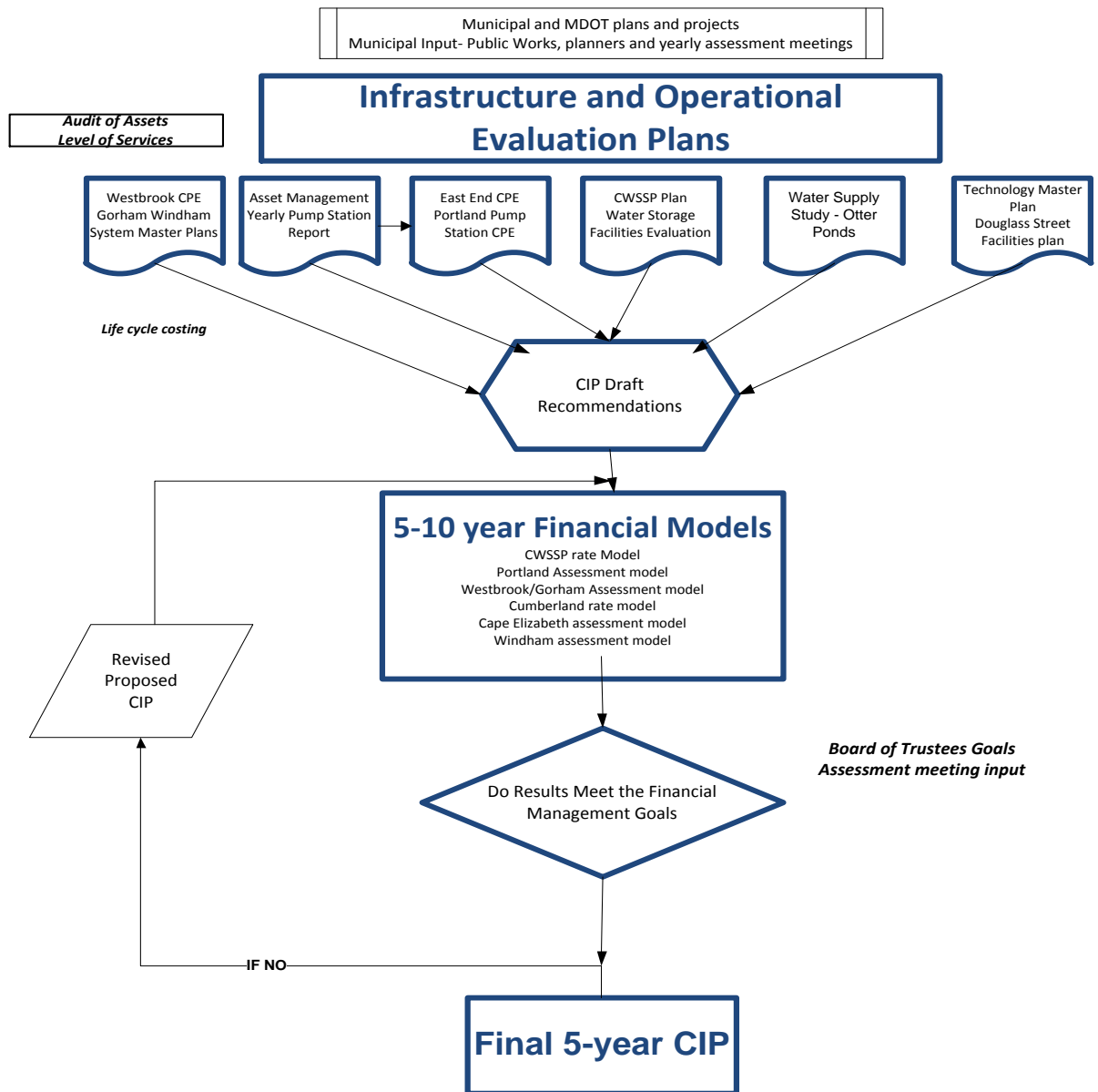
	----- Wastewater Funds -----					
	CAPE ELIZABETH	CUMBERLAND	GORHAM	PORTLAND	WESTBROOK	WINDHAM
Balance 12/31/15	234,302	281,831	661,208	2,562,557	1,984,405	230,014
Contribution - 2016	80,000	19,628	83,815	725,000	407,904	32,687
Operating Surplus Transfer	14,956	-	177,370	593,826	683,921	70,550
<u>Expenditure</u>	<u>(44,941)</u>	<u>(24,928)</u>	<u>(34,797)</u>	<u>(666,410)</u>	<u>(103,210)</u>	<u>(1,318)</u>
Balance 12/31/16 Estimated	284,317	276,532	887,596	3,214,973	2,973,020	331,933
Contribution - 2017	80,000	19,628	54,202	720,000	377,652	20,000
Operating Surplus Transfer	-	25,186	71,536	598,992	38,409	19,335
<u>Expenditure (Est'd)</u>	<u>(335,529)</u>	<u>(147,072)</u>	<u>(167,576)</u>	<u>(1,483,023)</u>	<u>(229,501)</u>	<u>(210,000)</u>
Balance 12/31/17 Estimated	28,788	174,274	845,759	3,050,943	3,159,580	161,268
Contribution - 2018	100,000	19,628	86,690	720,000	370,574	35,849
Operating Surplus Transfer	-	-	-	-	-	-
<u>Expenditure (Est'd)</u>	<u>(30,000)</u>	<u>(20,000)</u>	<u>(33,400)</u>	<u>(1,165,000)</u>	<u>(243,300)</u>	<u>(18,300)</u>
Balance 12/31/18 Estimated	98,788	173,902	899,050	2,605,944	3,286,854	178,817
Target Renewal & Replacement (5% of Net Capital Assets)	<u>\$812,500</u>	<u>\$388,000</u>	<u>\$880,800</u>	<u>\$5,218,000</u>	<u>\$1,072,000</u>	<u>\$150,000</u>

Introduction

A five-year capital improvement plan is developed each year taking into consideration various factors including Infrastructure and Operational Evaluation Plans, Strategic/Tactical Goals and Benchmarks, Multi-year Financial Projections and Board Established Budget Guidelines (described in the Introduction Section). The plan is developed with much stakeholder's input, including input from customers, municipalities, regulators and staff. Staff recommends the Board of Trustees authorize the projects in first year of the plan to be completed. Capital Expenditures are for a physical asset that exceeds \$10,000 and has a useful life of greater than 5 years or extends the useful life of an existing asset for more than 5 years.



Capital Improvement Program Process



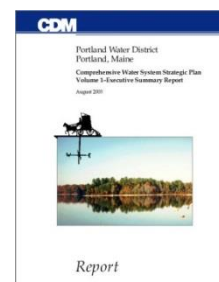
Infrastructure and Operational Evaluation Plans

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 2018 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 three tanks from the system – Munjoy Hill reservoir, Shore Acres and Oak Hill. In 2008, the District rehabilitated 2 tanks, Steep Falls and Gowen. In 2009, the Standish Tank was rehabilitated and a bulk mixer added. In 2012, modifications to the concrete tanks to comply with OSHA fall protection standards were made (CIP project #203).

	2012	2013	2014	2015	2016	2017	2018
Program– 43	2.0	\$2.5	\$3.0	\$3.5	\$4.0	\$4.0	\$4.0
Capital Reserve Funding			\$2.0	\$2.0	\$2.0	\$2.0	\$2.0
Program -111	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0
Total Funding	\$3.0	\$3.5	\$6.0	\$6.5	\$7.0	\$7.0	\$7.0

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

Proposed \$7,000,000 for 2018 estimated to replace between 5-6 miles

In the plan, system deficiencies and recommended actions were identified. The most significant project identified from the priority -1 projects was inadequacies associated with service from the Elevation 407 zone. CWSSP recommended the combining of the 407-north zone with the south zone. Many projects have been completed to that end. This included the inclusion of transmission main piping in the MDOT Rt. 202/Presumpscot River Bridge project, installation of 8,000 feet of trunk main on Fort Hill road along with several upgrades in the Little Falls area of Gorham and Windham as part of the Little Falls Conveyance Project. In 2008, 4,000 feet of transmission main was extended to the new pump station location on Ward's Hill road. In 2009, the transmission main was extended from the end of the Fort Hill main along Huston Road to the proposed pump station location. In 2016 the District completed the Transmission portion of the north 407 zone by extending 24" main from the pump station site 6500-feet down Dyer Road and Huston Road to route 202 connecting into the 2008 upgrades. This project provided an increase in pressure to approximately 150 customers that had substandard pressure and increase fire protection to the area.

A hydraulic analysis of the combined system and final design of the new 407 zone pump station was completed in 2017 and the pump station construction started in 2017 (CIP 307) and is expected to go on-line in the Fall of 2018. Land acquisition and design for a new storage facility to replace the Windham Center Tank is proposed for 2018 (CIP 307).

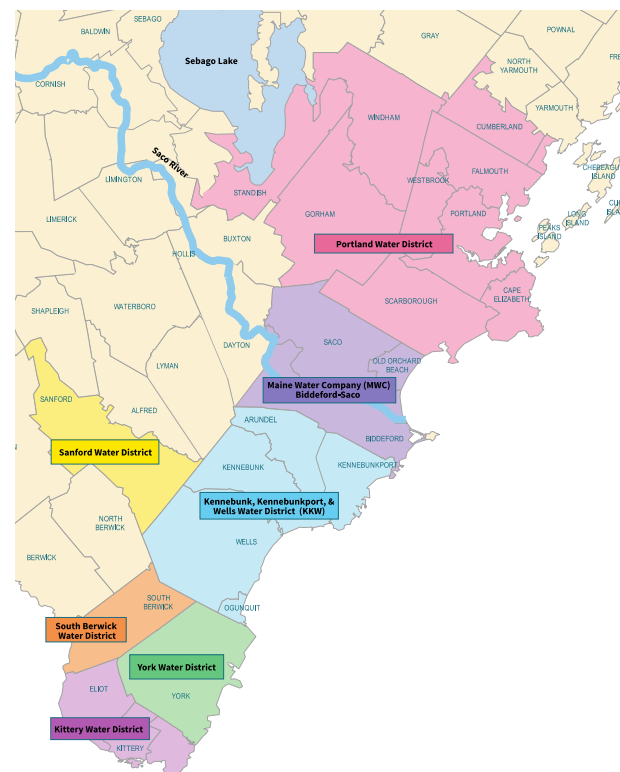
Water Fund (continued)

Southern Maine Regional Water Council – Water Master Plan Study – October 2008 (Updated 2016)



The Southern Maine Regional Water Council, made up of the 7 major water utilities of Cumberland and York County, completed a master plan in October of 2008. This document provides the southern Maine region with a planning tool for regional solutions to sustainable water resources and infrastructure for the foreseeable future. This study attained the following goals:

- Identified existing and potential sources of supply in the region and established the present and projected water needs in the region. Also, identified the limitations and risks of the existing and future supplies.
- Explored the logistics, benefits and impediments of creating an integrated, regional water supply system.
- Detailed the hydraulic considerations and infrastructure required to supply water over a large geographical area and evaluated potential water quality issues associated with blending various supplies and considered existing and future interconnections between systems.
- Developed short-term strategies for mutual-aid and sharing of resources between member utilities and developed an action plan to protect identified resources for future generations.
- Developed an integrated water supply plan for the entire region.
- Considered potential governance models for a regional supply organization.



The Council has continued to collaborate on regional utility planning and purchasing efforts. In 2016, the Council completed update to the 2008 Regional Plan. The updated plan created a regional hydraulic model, explored in detail individual interconnections between all the utilities, identified, and reviewed the following:

- existing capabilities for each system
- hydraulic limitations
- available water from neighboring systems
- water quality compatibility issues

Water Fund (continued)

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

Camp Dresser & McKee completed a study of the Sebago Lake Water Treatment Facility 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.

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 under design and construction is expected in 2019(CIP #18 SLWTF intakes).

Wastewater Funds

Cape Elizabeth – Sewer System

To increase the hydraulic capacity of the Cape Elizabeth WWTF, particularly during high wet weather flow events, the plant was upgraded to accept 2.75 mgd and the bypass pump station was eliminated. Since the upgrade, the plant has performed well during several significant wet weather events, including a record 7-inch rain storm in August 2014.

In 2009, the District engaged Wright-Pierce to evaluate methods that could lead to elimination of an unlicensed combined sewer overflow associated with the Ottawa Road pump station in Northern Cape Elizabeth. The report stated the estimated expense involved in elimination of the CSO and recommended that another approach be taken. This report was accepted by the Department and led to a three-party license between the Town of Cape Elizabeth, the City of South Portland and PWD as well as the development of a Long-Term Control Plan to mitigate the Ottawa Rd. CSO.

The scope of Long Term Control Plan focuses on reduction of CSO volume through infiltration/inflow (I/I) reduction within the Town's and City of South Portland's collection systems. Improvements to the Ottawa Road Pump Station are also included in the Long Term Control Plan to address critical infrastructure nearing the end of its useful life. The Town of Cape Elizabeth is undertaking several projects to extend storm sewers.

Cape Elizabeth – Sewer System

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

Stonegate Pump Station improvements new VFD installation

Cape Elizabeth - Pump Stations

The District has continued with the installation of standby power generators at key pump stations. These generators enable systems to operate during the frequent power outages that occur in Cape Elizabeth while reducing manpower during these events. Additionally, automated emergency power will go a long way towards eliminating the occasional back-ups that have occurred within the collection system.

In 2014, an assessment of all of the pump stations in the system was completed, and stations with identified needs were then flagged for more detailed investigation. As a result of those studies and prior CIP's, upgrades at three stations are currently in construction and scheduled for completion in 2017 (Broad Cove South, #2313; Stonegate North #2556; and Wildwood #2314).

Proposed for 2018 is an upgrade to the Little John (Family Field) Pump Station to address components that are near the end of their useful life including pumps, piping, electrical switchgear, ventilation, and controls systems.



Wastewater Funds (continued)

Gorham/Westbrook/Windham – Westbrook Regional Treatment Plant Evaluations

Wright-Pierce completed a comprehensive plant evaluation of the Westbrook Regional WWTF in 2001. The plan outlined recommended upgrades to the facility constructed in the late '70s. To date, the District has made improvements to:

- The plant electrical system (including the installation of an emergency power generator)
- HVAC systems in the administrative area
- Complete roof replacement
- Plant water system
- Clarifier scum removal
- Scum handling, and sludge conveyances control
- Filtrate pumps
- Chlorine contact tanks
- RAS pumping system
- Dewatered sludge cake and pugmill mixer power pack
- Polymer system
- RAS and flow split to the secondary clarifiers
- The Plant Control System was upgraded in 2012/2013

Proposed major modifications for a headworks upgrade were set aside in favor of installing screens at the two major pump stations feeding the treatment plant. Start-up of these systems at the Cottage Place and East Bridge St. Pump Stations has successfully eliminated pump plugging and has reduced the quantity of rags at the treatment plant.

In 2013, design and replacement of the control system began. This was completed in 2014 along with improvements and automation of the disinfection system.

The aeration system was evaluated in 2015 to develop a roadmap for the eventual upgrade of the aeration system as it nears the end of its service life, and in light of potential regulatory changes. The recommended upgrades to the aeration system will facilitate process control to maintain dissolved oxygen to meet today's loadings, match current peak demand, and provide more energy efficient oxygen delivery. Similar to the East End plant, a selector is recommended to enhance process control and improve settleability.

In the summer of 2014, the Department of Environmental Protection requested that treatment plants across the State of Maine complete ambient and treatment plant effluent sampling for nitrogen and phosphorus. The recommended upgrades to the aeration facilities would be incorporated into any additional treatment system upgrades for nutrient removal, should that become necessary in the future; however, the latest permit renewal includes continued sampling and monitoring only.

The secondary clarification process at Westbrook has not been upgraded or modified since original construction and the sludge withdrawal mechanisms are nearing the end of their useful life based on an assessment of the clarifiers completed in 2016. It is recommended to combine the secondary clarifier and aeration upgrades: design for these upgrades is proposed for 2019 (#992 and #2712).

Wastewater Funds (continued)

Gorham/Westbrook/Windham – Westbrook Regional Treatment Plant Evaluations

In 2015, the District completed an evaluation of sludge dewatering technologies for the WWTF, including rehabilitation of the existing belt filter press. Alternative technologies were piloted to quantify the improvement in dewatering performance as compared to the existing equipment. It was determined that alternative technologies would increase the dewatered sludge solids content from an average of approximately 16% to a minimum of 20%, which significantly reduces the volume of sludge to be disposed. This would reduce sludge disposal costs while enhancing flexibility with respect to future sludge disposal alternatives. As a result, in 2016 the proposed belt filter press rehabilitation project (#2075) has been replaced with a proposed upgrade to an alternative technology (#2534). In 2016, alternative technologies were evaluated and competitively procured through an evaluated bid process that resulted in a recommendation to upgrade to a screw press technology in January of 2017. The equipment has been purchased and is currently in fabrication with an anticipated delivery date of October 2017; installation of the new system is expected to be complete in the spring of 2018.

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.



Screw Press Cover, Frame and Screen

Westbrook Gorham Windham Regional Treatment Plant



Wastewater Funds (continued)

Westbrook – Sewer System

In late 2007, the District signed a contract with Woodard & Curran, Brown & Caldwell and Jordan Environmental to upgrade the City of Westbrook's CSO Master Plan. This plan was completed and submitted to Maine DEP in 2008. Some of the work included in the plan will involve the City, and some will involve the District. Because the City operates the collection system, the bulk of the first five years will focus on the removal of Inflow & Infiltration from the City collection system. Later portions of the plan will include storage and other work on District owned assets.

The flow from all CSO outfalls is now continuously monitored.

The plan was updated in 2014 and submitted to the DEP per the State's requirements. The plan included a summary of the work completed in the first 5 years and a revised set of projects and schedule. The projects that involve District facilities are being completed in accordance with the Master Plan and have included several projects to increase the capacity of the interceptor system. The Master Plan includes increasing the pumping capacity at the Dana Ct. Pump Station (#2527) which is currently under detailed design; bids for construction are expected by the end of 2017. The plan also includes the addition of screens at CSO diversion structures, proposed for 2018 (#2524).

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 currently under construction; completion is scheduled before the end of 2017.

To ensure that accurate wastewater flow is measured and used for allocating operating costs to the Town of Gorham, a flow meter was installed to measure the flow from the Town of Gorham. 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 was substantially completed September 2017. The initial impact of the project has been to promote good settling, and reduce odors generated by the aeration system. The project was awarded a grant from Efficiency Maine for energy efficient design.

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.

Efforts are underway to upgrade the ventilation system in the headworks room at the Peaks facility and to facilitate dewatering of the sequencing batch reactor tanks for inspection, maintenance and construction activities. Completion of these upgrades is scheduled for June 2018.

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 complete (Phase 1). The second phase of upgrades to the Fore River station are underway, including installation of a bypass connection and forcemain condition assessment. Phase 2 design is scheduled for 2018 with anticipated construction completion in 2019, and will primarily include upgrade of the station's screening, electrical, and ventilation systems

Pictured below is the 27" concrete forcemain excavation completed as part of the bypass connection installation effort.

The City of Portland submitted a Tier III Long Term Control Plan for the mitigation of CSO flows to MEDEP in 2011. The plan includes a \$167 million plan over 15 years. This plan focuses on storage and dedicated wet weather systems at the East End WWTF in the later years of the plan. A 2 million gallon storage conduit along Baxter Blvd. and Payson Park was commissioned in 2013. Design and construction of the next two storage conduits is underway. These storage conduits are part of the



City's collection system and are owned, operated, and maintained by the City. The treatment of flow from the storage conduits is coordinated with the City on an ongoing and regular basis.

The Portland City Council approved a \$3.1 million sewer expansion on Peaks Island. The project was managed, constructed, and financed by the District. The project was completed in 2014.

Wastewater Funds (continued)

Cumberland – Pump Stations

In 2007, the District completed upgrading the Tuttle Road pump station and the Foreside Road pump station. Minor revisions were completed at Powell Road pump station in 2006. The Powell Rd. Pump Station was completed in 2008. This work completes major upgrades to all of the primary Cumberland pumping stations. Planned improvements to the Cumberland system are shown in subprogram 41. The following was completed in 2009:

- Hooking up a metering vault located on Route 88. This will give us a reading of all Cumberland flow going into Falmouth
- Refurbishment of the Ledge Lane pump station
- Minor repairs as needed

In 2011, the 4th year of CCTV assessment of buried infrastructure was completed. An emergency generator was installed at the Smalls Brook Crossing Pump Station. This was part of a continued program to install emergency generators at pump stations. In 2014, an assessment of all of the pump stations in the system was completed, and the Longmeadow station was identified for proposed upgrades.

The District and the Town of Cumberland have investigated Infiltration and Inflow sources in the collection system. CCTV work, flow monitoring, and smoke testing will be used to identify sources of I/I. The Town of Cumberland, with the District's assistance, will also inspect homes in an effort to properly manage sump pumps and other sources of inflow. This project is intended to better understand the peak flows that will be sent to Falmouth for treatment and will possible impact the capacity and cost of shared infrastructure in Falmouth.

The Town of Falmouth replaced the joint use Mill Creek Pump Station and Force Main, which came online in 2017.



Upgrades to the Longmeadow Pump Station are currently ongoing with completion expected by November of 2017. The construction progress photo below shows the new panels during installation

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

Program	Program Approval 11/27/17	Special Approval
SCADA & Technology	\$300,000	
<ul style="list-style-type: none"> Hansen Replacement (ABC project) 		\$3,800,000
Vehicle and Equipment Replacement	\$500,000	
Wastewater Collection Systems and Pumping	\$1,930,000	
Wastewater Treatment Facilities	\$3,505,000	
Water Distribution System Upgrades	\$8,725,000	
Water Facilities Program	\$475,000	
Water Supply - Sebago Lake and Steep Falls	\$25,000	
Program Totals	\$15,460,000	
Combined Program Total		\$19,260,000

Note: Projects that require Special Approval will be brought back to the Board of Trustees for specific authorization.

Proposed Board Action:

ORDERED: that the 2018-2022 Capital Improvement Plan is hereby adopted and the General Manager is authorized to solicit bids or proposals for the year 2018 projects, excepting CIP# 50, project 2542 – Hansen Replacement, 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 2018 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 2018

Program	Subprogram #	Budget
SCADA & Technology		
SCADA /Process Control - Water	110	\$50,000
SCADA /Process Control - Wastewater	177	\$50,000
Technology Upgrade and Replacement	50	\$4,000,000
	Program Total	\$4,100,000
Vehicle & Equipment Replacement		
Vehicle and Equipment Replacement	326	\$500,000
	Program Total	\$500,000
Wastewater Collection Systems & Pumping		
Cape Elizabeth Pump Stations - R&R	52	\$30,000
Cape Elizabeth Pump Stations - Capital	407	\$900,000
Cumberland WW Pump Stations - R&R	41	\$20,000
Gorham WW Pump Stations - R&R	60	\$15,000
Portland CSO Mitigation	131	\$400,000
Portland WW Pump Stations - R&R	70	\$335,000
Westbrook CSO Abatement	29	\$200,000
Westbrook WW Systems R&R	411	\$10,000
Windham - Little Falls WW system R&R	180	\$20,000
	Program Total	\$1,930,000
Wastewater Treatment Facilities		
Cape Elizabeth WWTF - Capital	418	\$1,100,000
East End WWTF - R&R	409	\$725,000
East End WWTF - Capital	21	\$1,575,000
Peaks Island R&R	423	\$55,000
Westbrook/Gorham /Windham WWTF R&R	416	\$50,000
	Program Total	\$3,505,000

Program Summary for 2018

Program	Subprogram #	Budget
Water Distribution System Upgrades		
Meter Replacement and Leak Detection	63	\$250,000
Gorham/Windham 407 Zone Improvements	307	\$400,000
Water Hydrants Replacement	65	\$200,000
Water Main Renewal - Seasonal Mains	56	\$25,000
Water Main Replacement - Capital	43	\$6,000,000
Water Main Replacement - R&R	111	\$1,000,000
Water Services - Renew Domestic & Fire	61	\$600,000
Water Valve Replacement	53	\$200,000
Water System Redundancy (Looping) and Upsizing Dev.	408	\$50,000
	Program Total	\$8,725,000
Water Facilities Program		
Facilities Improvements	68	\$300,000
Water Facilities Renewal and Replacement	122	\$150,000
Water Storage Facility Maintenance & Upgrade	203	\$25,000
	Program Total	\$475,000
Water Supply - Sebago Lake and Steep Falls		
Water System Security	46	\$25,000
	Program Total	\$25,000
	CIP Total	\$19,260,000

Fund Summary for 2018

Subprogram	Subprogram #	Budget	Manager
Division	10 Allocation		
Facilities Improvements	68	\$300,000	Welch, Andrew
Meter Replacement and Leak Detection	63	\$250,000	Wallace, Jim
Technology Upgrade and Replacement	50	\$4,000,000	Davis, Chad
Vehicle and Equipment Replacement	326	\$500,000	Welch, Andrew
	Division 10	Total	\$5,050,000
Division	20 Water - General		
Gorham/Windham 407 Zone Improvements	307	\$400,000	Johnson, Gordon
SCADA/Process Control - Water	110	\$50,000	Richard, Emile
Water Facilities Renewal and Replacement	122	\$150,000	Wallace, Jim
Water Hydrants Replacement	65	\$200,000	Wallace, Jim
Water Main Renewal - Seasonal Mains	56	\$25,000	Wallace, Jim
Water Main Replacement - Capital	43	\$6,000,000	Johnson, Gordon
Water Main Replacement - R&R	111	\$1,000,000	Johnson, Gordon
Water Services - Renew Domestic & Fire	61	\$600,000	Wallace, Jim
Water Storage Facility Maintenance & Upgrade	203	\$25,000	Johnson, Gordon
Water System Redundancy (Looping) and Upsizing development	408	\$50,000	Johnson, Gordon
Water Valve Replacement	53	\$200,000	Wallace, Jim
Water System Security	46	\$25,000	Wallace, Jim
	Division 20	Total	\$8,725,000
Division	51 Wastewater - Cape Elizabeth		
Cape Elizabeth Pump Stations - R&R	52	\$30,000	Poulin, Charlene
Cape Elizabeth Pump Stations - Capital	407	\$900,000	Rodriguez, Paul
Cape Elizabeth WWTF - Capital	418	\$1,100,000	Rodriguez, Paul
	Division 51	Total	\$2,050,000
Division	53 Wastewater - Cumberland		
Cumberland WW Pump Stations - R&R	41	\$20,000	Poulin, Charlene
	Division 53	Total	\$20,000

Fund Summary for 2018

Subprogram	Subprogram #	Budget	Manager
Division 55 Wastewater - Windham Little Falls			
Windham - Little Falls WW System R&R	180	\$20,000	Poulin, Charlene
	Division 55 Total	\$20,000	
Division 57 Wastewater - Portland			
East End WWTF - R&R	409	\$725,000	Sloan, Steve
East End WWTF - Capital	21	\$1,575,000	Rodriguez, Paul
SCADA/Process Control - Wastewater	177	\$50,000	Richard, Emile
Portland CSO Mitigation	131	\$400,000	Rodriguez, Paul
Portland WW Pump Stations - R&R	70	\$335,000	Poulin, Charlene
	Division 57 Total	\$3,085,000	
Division 61 Wastewater - Gorham Village			
Gorham WW Pump Stations - R&R	60	\$15,000	Poulin, Charlene
	Division 61 Total	\$15,000	
Division 62 Wastewater - Westbrook			
Westbrook CSO Abatement	29	\$200,000	Poulin, Charlene
Westbrook WW Systems R&R	411	\$10,000	Poulin, Charlene
	Division 62 Total	\$210,000	
Division 64 Wastewater - Joint Westbrook			
Westbrook/Gorham /Windham WWTF R&R	416	\$50,000	Sloan, Steve
	Division 64 Total	\$50,000	
Division 66 Wastewater - Peaks			
Peaks Island R&R	423	\$55,000	Sloan, Steve
	Division 66 Total	\$55,000	
Total of All Divisions:		\$19,260,000	

Financing Summary for 2018

In 2018, capital projects will be funded through bonds, bond anticipation notes and renewal and replacement (R&R) reserve withdrawals as described in the Capital Finance section.

Funding Source	Subprogram	Subprogram #	Budget
Bonds - Wastewater			
	Cape Elizabeth WWTF - Capital	418	\$1,100,000
	Cape Elizabeth Pump Stations - Capital	407	\$900,000
	Portland CSO Mitigation	131	\$400,000
	East End WWTF - Capital	21	\$1,575,000
	Total for: Bonds - WW		\$3,975,000
Bonds - Water			
	Water Main Replacement - Capital	43	\$6,000,000
	Technology Upgrade and Replacement	50	\$2,800,000
	Gorham/Windham 407 Zone Improvements	307	\$400,000
	Total for: Bonds - Water		\$9,200,000
R&R - Wastewater			
	Cape Elizabeth Pump Stations - R&R	52	\$30,000
	Cumberland WW Pump Stations - R&R	41	\$20,000
	East End WWTF - R&R	409	\$725,000
	Gorham WW Pump Stations - R&R	60	\$15,000
	Peaks Island R&R	423	\$55,000
	Portland WW Pump Stations - R&R	70	\$335,000
	SCADA/Process Control - Wastewater	177	\$50,000
	Westbrook CSO Abatement	29	\$200,000
	Westbrook WW Systems R&R	411	\$10,000
	Westbrook/Gorham /Windham WWTF R&R	416	\$50,000
	Windham - Little Falls WW System R&R	180	\$20,000
	Total for: R&R - Wastewater		\$1,510,000

Financing Summary for 2018

In 2018, capital projects will be funded through bonds, bond anticipation notes and renewal and replacement (R&R) reserve withdrawals as described in the Capital Finance section.

Funding Source	Subprogram	Subprogram #	Budget
R&R - Water			
	Facilities Improvements	68	\$300,000
	Meter Replacement and Leak Detection	63	\$250,000
	SCADA /Process Control - Water	110	\$50,000
	Technology Upgrade and Replacement	50	\$1,200,000
	Vehicle and Equipment Replacement	326	\$500,000
	Water Facilities Renewal and Replacement	122	\$150,000
	Water Hydrants Replacement	65	\$200,000
	Water Main Renewal - Seasonal Mains	56	\$25,000
	Water Main Replacement - R&R	111	\$1,000,000
	Water Services - Renew Domestic & Fire	61	\$600,000
	Water Storage Facility Maintenance & Upgrade	203	\$25,000
	Water System Redundancy (Looping) and Upsizing Dev	408	\$50,000
	Water Valve Replacement	53	\$200,000
	Water System Security	46	\$25,000
	Total for: R&R - Water		\$4,575,000
Grand Total			\$19,260,000

Priority Summary Report for 2018

Non-Routine

Priority Reason	Subprogram	Subprogram #	Budget
<u>Regulatory mandate</u>			
These projects are required by law or permits.			
	Portland CSO Mitigation	131	\$400,000
	Westbrook CSO Abatement	29	\$200,000
	Total for: Regulatory mandate		\$600,000
<u>Security of facilities</u>			
These are projects to address water and wastewater system security vulnerabilities.			
	Water System Security	46	\$25,000
	Security Improvements – WW East End	409	\$25,000
	Total for: Security of facilities		\$50,000
<u>Upgrade obsolete facility</u>			
These projects have been identified through comprehensive facility evaluations (CWSSP and CPE) as necessary to extend the life of existing facilities.			
	Cape Elizabeth Pump Stations – Capital	407	\$900,000
	Cape Elizabeth WWTF – Capital	418	\$1,100,000
	East End WWTF Capital Upgrade	21	\$1,575,000
	Facilities Improvements	68	\$300,000
	Gorham/Windham 407 Zone Improvements	307	\$400,000
	SCADA /Process Control - Water	110	\$50,000
	SCADA /Process Control - Wastewater	177	\$50,000
	Total for: Upgrade Obsolete facility		\$4,375,000

Items in RED are planned to be financed from bond issues in 2018 or future years. Other projects are to be financed through the renewal and replacement reserves.

Priority Summary Report for 2018

Routine

Priority Reason	Subprogram	Subprogram #	Budget
Routine replacement			
Projects that require year-to-year funding to routinely replace or renew			
Cape Elizabeth Pump Stations - R&R		52	\$30,000
Cumberland WW Pump Stations - R&R		41	\$20,000
East End WWTF - R&R		409	\$700,000
Gorham WW Pump Stations - R&R		60	\$15,000
Meter Replacement and Leak Detection		63	\$250,000
Peaks Island R&R		423	\$55,000
Portland WW Pump Stations - R&R		70	\$335,000
Technology Upgrade and Replacement		50	\$4,000,000
Vehicle and Equipment Replacement		326	\$500,000
Water Facilities Renewal and Replacement		122	\$150,000
Water Hydrants Replacement		65	\$200,000
Water Main Renewal - Seasonal Mains		56	\$25,000
Water Main Replacement - Capital		43	\$6,000,000
Water Main Replacement - R&R		111	\$1,000,000
Water Services - Renew Domestic & Fire		61	\$600,000
Water Storage Facility Maintenance & Upgrade		203	\$25,000
Water System Redundancy (Looping) and Upsizing Dev.		408	\$50,000
Water Valve Replacement		53	\$200,000
Westbrook WW Systems R&R		411	\$10,000
Westbrook/Gorham/Windham WWTF R&R		416	\$50,000
Windham - Little Falls WW System R&R		180	\$20,000
Total for: Routine replacement			\$14,235,000
Grand Total			\$19,260,000

Items in **RED** are planned to be financed from bond issues in 2018 or future years. Other projects are to be financed through the renewal and replacement reserves.

Subprograms with Pending Unscheduled Work

Subprogram Title	Subprogram #	Cost	Manager
<u>Division 20 Water - General</u>			
Watershed Land Acquisition	1	\$434,000	Twaddel, Norman
<u>Division 51 Wastewater - Cape Elizabeth</u>			
Ottawa Rd. CSO Abatement	119	\$350,000	Firmin, Scott
Total of All Divisions:		\$754,000	

Pending Unscheduled Work are projects that may occur in 2018.

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

Subprogram # 119 - A study is underway exploring the source and possible solutions to address sewer overflow on Ottawa Road in Cape Elizabeth. The study may indicate that a capital improvement needs to be made at the pump station.

If projects are undertaken, the Board of Trustees will be requested to approve and the Capital Improvement Plan amended. The project funding has not been included in the 2018 Budget.

CIP Operating Fund Summary Impact

51 - Wastewater - Cape Elizabeth									
Cape Elizabeth WWTF - Capital	418	\$1,100,000		\$7,750	\$32,750	\$87,625	\$85,975	\$84,325	
Headworks Heating and Ventilation Construction			\$250,000	\$7,750	\$20,000	\$19,625	\$19,250	\$18,875	Debt Service
Cape UV Disinfection			\$850,000		\$12,750	\$68,000	\$66,725	\$65,450	Debt Service
Cape Elizabeth WWTF - R&R	424	\$30,000							
Cape Eliz. WWTF - R&R			\$30,000						
Cape Elizabeth Pump Stations - Capital	52	\$900,000							
Little John Pump Station Upgrade			\$900,000		\$13,500	\$72,000	\$70,650	\$69,300	Debt Service
			\$2,030,000						
53 - Wastewater - Cumberland									
Cumberland WW Pump Stations - R&R	41	\$20,000							
Cumberland WW Pump Stations - R&R			\$20,000						
55 - Wastewater - Windham Little Falls									
Windham - Little Falls WW System R&R	180	\$20,000							
Windham R&R			\$20,000						
57 - Wastewater - Portland									
East End WWTF - R&R	409	\$725,000							
EEWWTF - R&R			\$75,000						
Security Improvements			\$25,000	\$250	\$250	\$250	\$250	\$250	Contract Services
Primary Clarifier Sludge Collection			\$250,000						
Disinfection System Hypochlorite Tank replacement			\$125,000						
Sludge Dewatering Press Rehabilitation Phase 1			\$100,000						
Odor Control System Fan Replacement			\$150,000						
East End WWTF - Capital	21	\$1,575,000		\$23,625	\$126,000	\$123,638	\$121,275	\$118,913	Debt Service
EEWWTF - Influent screen replacement			\$450,000						
EEWWTF - Effluent Flow Meter replacement			\$50,000						
Chlorine Contact Tank Isolation Piping Installation			\$400,000						
HVAC Upgrades: Dewatering Area			\$425,000						
Engineering for NEPS/ WWTF Backup power			\$250,000						
Portland CSO Mitigation	131	\$400,000							
India St & NEPS Tide Gate Replacement Construction			\$400,000	\$6,000	\$32,000	\$31,400	\$30,800	\$30,200	
Portland WW Pump Stations - R&R	70	\$335,000							
Stroutwater Pump Station Upgrades			\$110,000						
Northeast PS roof replacement			\$125,000						
Portland WW Pump Stations - R&R			\$100,000						
			\$3,035,000						

CIP Operating Fund Summary Impact

				\$3,035,000	
61 - Wastewater - Gorham Village					
Gorham WW Pump Stations - R&R	60	\$15,000			
Gorham WW Pump Stations - R&R			\$15,000		
62 - Wastewater - Westbrook					
Westbrook CSO Abatement	29	\$200,000			
Construction of CSO Debris Screens			\$200,000		
Westbrook WW Systems R&R	411	\$10,000			
			\$210,000		
64 - Wastewater - Joint Westbrook					
Westbrook/Gorham /Windham WWTF R&R	416	\$50,000			
Routine Renewal and Replacement			\$50,000		
66 - Wastewater - Peaks					
Peaks Island R&R	423	\$55,000			
Compressed Air replacement			\$35,000		
Peaks Island R&R			\$20,000		
			\$55,000		
Total 2016 CIP				\$19,260,000	

Capital Improvement Program - Five Year Plan

Subprogram	#	2018	2019	2020	2021	2022	Five -Year Total
Division: 10 Allocation							
Facilities Improvements	68	\$300,000	\$450,000	\$450,000	\$300,000	\$300,000	\$1,800,000
Meter Replacement and Leak Detection	63	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,250,000
Technology Upgrade and Replacement	50	\$4,000,000	\$200,000	\$200,000	\$200,000	\$200,000	\$4,800,000
Vehicle and Equipment Replacement	326	\$500,000	\$400,000	\$400,000	\$400,000	\$400,000	\$2,100,000
Division 10 Total		\$5,050,000	\$1,300,000	\$1,300,000	\$1,150,000	\$1,150,000	\$9,950,000
Division: 20 Water - General							
Gorham/Windham 407 Zone Improvements	307	\$400,000	\$2,500,000	\$1,000,000		\$1,575,000	\$5,475,000
SCADA/Process Control - Water	110	\$50,000	\$50,000	\$84,000	\$50,000	\$50,000	\$284,000
SLWTF - Emergency Storage/60" Transmission Phase 1	262				\$600,000	\$6,000,000	\$6,600,000
SLWTF Intakes - Replace Mechanical Screens	18		\$2,600,000				\$2,600,000
Water Facilities Renewal and Replacement	122	\$150,000	\$200,000	\$50,000	\$50,000	\$75,000	\$525,000
Water Hydrants Replacement	65	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
Water Main Renewal - Seasonal Mains	56	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$125,000
Water Main Replacement - Capital	43	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$30,000,000
Water Main Replacement - R&R	111	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$5,000,000
Water Services - Renew Domestic & Fire	61	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$3,000,000
Water Storage Facility Maintenance & Upgrade	203	\$25,000	\$450,000	\$50,000	\$50,000	\$50,000	\$625,000
Water System Redundancy (Looping) and Upsizing	408	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
Water System Security	46	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$125,000
Water Valve Replacement	53	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
Division 20 Total		\$8,725,000	\$13,900,000	\$9,284,000	\$8,850,000	\$15,850,000	\$56,609,000
Division: 50 Wastewater - General							
SCADA/Process Control - Wastewater	177	\$50,000	\$300,000	\$366,000	\$50,000	\$10,000	\$776,000
Division 50 Total		\$50,000	\$300,000	\$366,000	\$50,000	\$10,000	\$776,000

Capital Improvement Program - Five Year Plan

Subprogram	#	2018	2019	2020	2021	2022	Five -Year Total
Division: 51 Wastewater - Cape Elizabeth							
Cape Elizabeth Pump Stations - Capital	407	\$900,000	\$200,000				\$1,100,000
Cape Elizabeth Pump Stations - R&R	52	\$30,000	\$30,000	\$300,000	\$30,000	\$30,000	\$470,000
Cape Elizabeth WWTF - Capital	418	\$1,100,000				\$175,000	\$1,275,000
Cape Elizabeth WWTF - R&R	424		\$120,000	\$50,000	\$20,000	\$100,000	\$290,000
Division 51 Total		\$2,030,000	\$350,000	\$350,000	\$50,000	\$305,000	\$3,135,000
Division: 53 Wastewater - Cumberland							
Cumberland WW Pump Stations - R&R	41	\$20,000	\$220,000	\$20,000	\$155,000	\$20,000	\$435,000
Division 53 Total		\$20,000	\$220,000	\$20,000	\$155,000	\$20,000	\$435,000
Division: 55 Wastewater - Windham Little Falls							
Windham - Little Falls WW System Capital	181		\$75,000	\$425,000	\$387,500		\$887,500
Windham - Little Falls WW System R&R	180	\$20,000	\$20,000	\$85,000	\$20,000	\$20,000	\$165,000
Division 55 Total		\$20,000	\$95,000	\$510,000	\$407,500	\$20,000	\$1,052,500
Division: 57 Wastewater - Portland							
East End WWTF - R&R	409	\$725,000	\$1,100,000	\$550,000	\$300,000	\$300,000	\$2,975,000
East End WWTF Capital Upgrade	21	\$1,575,000	\$3,950,000		\$1,500,000		\$7,025,000
Portland CSO Mitigation	131	\$400,000					\$400,000
Portland WW Pump Stations - R&R	70	\$335,000	\$325,000	\$325,000	\$200,000	\$100,000	\$1,285,000
SCADA/Process Control - Wastewater	177		\$64,000	\$50,000			\$114,000
Division 57 Total		\$3,035,000	\$5,439,000	\$925,000	\$2,000,000	\$400,000	\$11,799,000
Division: 61 Wastewater - Gorham Village							
Gorham WW Pump Stations - R&R	60	\$15,000	\$130,000	\$20,000	\$20,000	\$20,000	\$205,000
Division 61 Total		\$15,000	\$130,000	\$20,000	\$20,000	\$20,000	\$205,000

Capital Improvement Program - Five Year Plan

Subprogram	#	2018	2019	2020	2021	2022	Five -Year Total
Division: 62 Wastewater - Westbrook							
Westbrook CSO Abatement	29	\$200,000			\$360,000		\$560,000
Westbrook WW Systems R&R	411	\$10,000	\$10,000	\$10,000	\$10,000	\$20,000	\$60,000
Division 62 Total		\$210,000	\$10,000	\$10,000	\$370,000	\$20,000	\$620,000
Division: 64 Wastewater - Joint Westbrook							
SCADA/Process Control - Wastewater	177			\$35,000			\$35,000
Westbrook Gorham Windham Regional WWTF - Capital	167		\$1,000,000	\$9,450,000			\$10,450,000
Westbrook/Gorham /Windham WWTF R&R	416	\$50,000	\$50,000	\$50,000	\$50,000	\$75,000	\$275,000
Division 64 Total		\$50,000	\$1,050,000	\$9,535,000	\$50,000	\$75,000	\$10,760,000
Division: 66 Wastewater - Peaks							
Peaks Island R&R	423	\$55,000	\$20,000	\$20,000	\$250,000	\$80,000	\$425,000
Division 66 Total		\$55,000	\$20,000	\$20,000	\$250,000	\$80,000	\$425,000
Grand Total		\$19,260,000	\$22,814,000	\$22,340,000	\$13,352,500	\$17,950,000	\$95,766,500

2017 CIP Progress Report

<u>Program</u>	<u>CIP #</u>	<u>Appropriated Funds</u>	<u>Carry over projects to 2018</u>	<u>Unspent-appropriate to R&R</u>
<u>SCADA & Technology</u>				
SCADA / Process Control - Water	110	\$225,000		
SCADA / Process Control - Wastewater	177	\$60,000	Completed, RR not spent	\$50,000
Technology Upgrades	50	\$200,000	Completed, Unspent Fund Tech Reserve	
<u>Vehicle & Equipment Replacement</u>				
Vehicle & Equipment Replacement	326	\$375,000	Completed 2017	
<u>Wastewater Collection Systems & Pumping</u>				
Cape Elizabeth Pump Stations - R&R	52	\$100,000	Mitchell Road, Peabbles Point shed – Bid in fall .Little John PS Fuel tank removal- completed	\$30,000
Cumberland WW Pump Stations - R&R	41	\$62,000	Ocean Terrace – Bid in fall 2017	\$20,000
Gorham WW Pump Station - R&R	60	\$90,000	Gateway Commons, Little River, Main Street MH, Bid in Fall 2017	\$10,000
Portland CSO Mitigation	131	\$20,000	On-going	
Portland Pump Station - R&R	70	\$100,000	On- going, R&R not spent	\$50,000
Portland Pump Station - Capital	420	\$3,050,000	Northeast Odor Control – est. completion date summer 2018, Fore River phase 2 – est. completion date fall 2018	
Westbrook CSO Abatement	29	\$2,245,000	Dana Court PS upgrades – ongoing estimated completion date fall 2018	
Westbrook WW Systems R&R	411	\$10,000	Completed – R&R not spent	\$10,000
Windham Little Falls System R&R	180	\$20,000	Completed- R&R not spent	\$20,000
Windham Little Falls System Capital	181	\$50,000	Postponed due to Windham not receiving CDBG grant to proceed	\$50,000
<u>Wastewater Treatment Facilities</u>				
Cape Elizabeth WWTF - R&R	424	\$50,000	Security upgrades on-going	\$20,000
Cape Elizabeth WWTF - Capital	418	\$25,000	On- going	
East End WWTF - R&R	409	\$485,000	On- going Multi-year projects	
East End WWTF - Capital	21	\$35,000	On- going	
Peaks Island R&R	423	\$185,000	On- going	
Westbrook/Gorham /Windham WWTF R&R	416	\$100,000	On- going - R&R not spent	\$50,000

2017 CIP Progress Report - continued

<u>Program</u>	<u>CIP #</u>	<u>Appropriated Funds</u>	<u>Carry over projects to 2018</u>	<u>Unspent Re-appropriate to R&R</u>
<u>Water Distribution System Upgrades</u>				
407 Zone Pump Station Construction	307	\$2,000,000	Ongoing, multiyear project Fall 2018 completion date	
Meter Replacement and Leak Detection	63	\$250,000	Completed	
Water Valve Replacement	53	\$200,000	Completed	
Water Hydrants Replacement	65	\$200,000	Completed	
Water Main Renewal - Cast Iron Mains	43	\$6,000,000	Completed Powsland, Walnut, Allison to carry over to 2018	
Water Main Renewal - Galvanized Mains	111	\$1,000,000	Completed	
Water Main Renewal - Seasonal Mains	53	\$25,000	Completed	
Water Services - Renew Domestic & Fire	61	\$560,000	Completed	
Water System Redundancy (Looping) and Upsizing	408	\$50,000	Completed	
<u>Water Facilities Program</u>				
Facilities Improvements	68	\$400,000	Completed	
SLWTF Intakes – Replace Mech. Screens	18	100,000	Design on-going	
Water Facilities Renewal and Replacement	122	\$120,000	On- going	
Water Storage Facility Maintenance & Upgrade	203	\$25,000	Completed - unspent	\$25,000
<u>Water Supply - Sebago Lake and Steep Falls</u>				
Water System Security	46	\$25,000	On- going	
Water System Security – Rt 35/237	46	\$250,000	On- going Route 35 project out to bid in Late Fall 2017 – Construction 2018	

Completed 2017 - This designates the subprogram is either completed or will be completed by first quarter of 2018. Carry over projects are projects that were programmed to be started in 2017 but will not start until sometime in 2018.

In the following Subprogram descriptions, items highlighted in gray are going to happen in 2018.

Subprogram # 1 Watershed Land Acquisition

Division: Water - General

Manager: Twaddel, Norman

Funding: Land Reserve

Priority: Regulatory mandate

Description:

Purchase land with or without buildings in accordance with the Watershed Land Purchase Policy.

Justification / Impact:

Ownership of land, particularly along the shore of Sebago Lake within the two-mile limit is the surest way to control land use which affects Lower Bay water quality and body contact.

History:

The District has a long standing policy to purchase Sebago Lake water frontage and other critical land for the purpose of watershed protection and long-term maintenance of Sebago Lake water quality. We do not aggressively solicit land to buy, but we have made public our interest to purchase Watershed land and, in recent times, all purchases have resulted from seller initiated contacts.

Origin of the Subprogram:

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
PEND 1	Watershed Protection Land Purchase	434,000
Total Cost, All Years:		434,000

Previous Years on CIP:

All since 1994

Related Projects:

None

Procurement Issues:

Purchase decisions are negotiated on the basis of professional real estate appraisals. Board of Trustees approval of individual purchases is required.

Eel Cove – Shorefront properties within the 2 mile limit left (Lanni, Porter purchased in 2007, Stanford in 2008 and Messenger 2017)



Subprogram # 2 Watershed Land Conservation

Division: Water - General

Manager: Hunt, Paul

Funding: Watershed Land Reserve

Priority: Regulatory mandate

Description:

Contribute towards land conservation projects in accordance with the Watershed Land Conservation Policy.

Justification / Impact:

There is a direct link between the degree to which a watershed is forested and the quality of water in the lakes and streams within it (AWWA, 2004). Conservation of forested land in perpetuity protects water quality, which benefits both customers of the Portland Water District and all other users of Sebago Lake.

History:

In 2007 the Portland Water District trustees adopted a policy to support measures to preserve Sebago Lake watershed land in perpetuity and to provide open space for lake-friendly public access. The District acknowledges that it is neither feasible nor necessary to own all land in the watershed. Instead the District cooperates and partners with organizations and individuals who seek to preserve and manage their watershed lands in a manner that protects water quality and therefore protects the health of drinking water consumers. In 2012, the policy was amended to allow for up a contribution of up to 25% of the easement/acquisition value and a Standard Operating Procedure was developed for assessing projects.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
PEND 1	Watershed Land Conservation	\$100,000
Total Cost, All Years:		\$100,000

Previous Years on CIP:

None

Related Projects:

Subprogram #1 – Watershed Land Acquisition

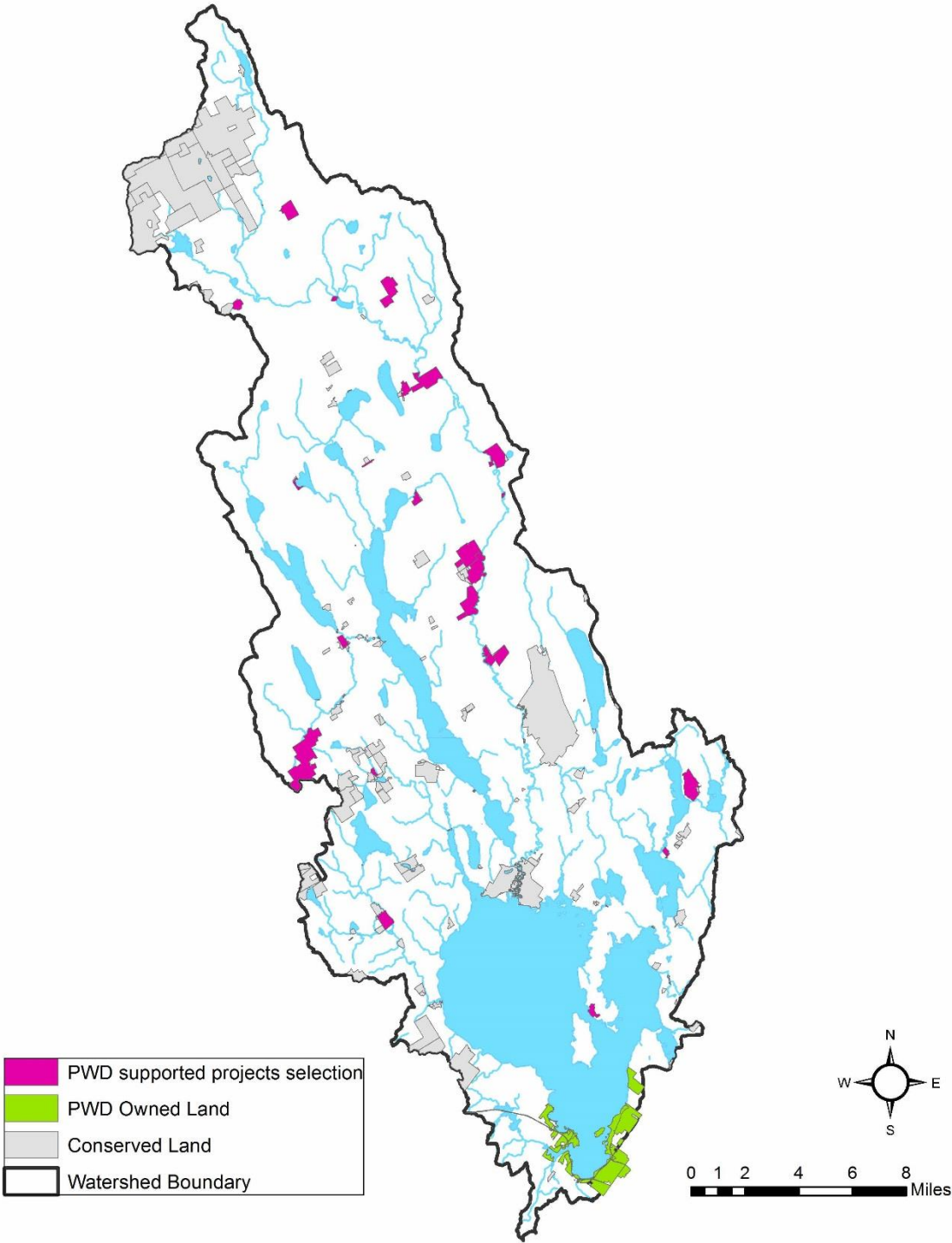
Procurement Issues:

Project contributions are recommended by staff based on a formula. Board of Trustees approval of contributions is required.

Summary of Watershed Conservation Projects 2008-2017 – 3798 Acres Conserved – District's contribution \$511,000

Project	Town	Acres	Year	Contribution
Hague	Waterford	350	2008	\$5,000
Little Moose Pond	Waterford	23	2009	\$500
Watkins	Waterford	690	2011	\$9,250
Camp Wawenock	Raymond	60	2010	\$10,000
Tenny River	Raymond	28	2012	\$5,000
Hague Farmstead	Waterford	88	2012	\$1,900
Perley Mills	Bridgton/Denmark	800	2013	\$50,000
Maple Ridge	Harrison	35	2013	\$5,880
Moon Valley	Harrison	14	2013	\$5,510
Flint Farm	Albany Township	156	2013	\$7,600
Perley Pond/NW River	Sebago	150	2014	\$33,600
Crooked River Watershed Forestland	Harrison/Otisfield	791	2014	\$268,899
Cummings Parcel	Harrison	10	2014	\$5,000
Stanley Parcel	Waterford	21	2015	\$1,575
Raymond Community Forest	Raymond	350	2014	\$38,944
Whitney Pond	Stoneham	70	2015	\$36,860
Proctor Pond	Albany Township	54	2015	\$9,000
Howe Woodlot	Waterford	40	2017	\$3,200
Fogg Lot	Otisfield	68	2017	\$13,600

Conserved Land in the Sebago Lake Watershed



Subprogram # 18**SLWTF Intakes - Replace Mechanical Screens****Division:** Water - General**Manager:** Johnson, Gordon**Funding:** Bonds - Water**Priority:** Routine replacement**Description:**

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

Justification / Impact:

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

History:

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

Origin of the Subprogram:

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

Budget Summary:

Budget year	Project	Budget Year Cost
2019	675 Replace Mechanical Screens	\$2,600,000
Total Cost, All Years:		\$2,600,000

Previous Years on CIP: 1998 to present**Related Projects:**

Procurement Issues: Internal engineering services followed by competitive proposals for purchase and installation.

Subprogram # 21**East End WWTF Capital Upgrade****Division:** Wastewater – Portland**Manager:** Rodriguez, Paul**Funding:** Bonds - Wastewater**Priority:** Upgrade obsolete facility**Description:**

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

Justification / Impact:

The current facility is thirty-nine years old and many of the original systems are worn out and/or functionally obsolete. Implementation of the program shown below allows the District to meet current and future regulatory requirements while obtaining the operating cost advantages of new technology. The impact and benefit of this program is reduced operating cost, system reliability and the ability to meet permit conditions.

History:

This implementation program began with the Woodard & Curran CPE completed in 1998. Wright-Pierce and CH2M-Hill were retained to implement the initial phases of this on-going program. Since then, work has been completed on the influent channels, screening, grit removal, primary sedimentation basins, odor control and secondary clarifiers. Construction of the new dewatering system, including the Fournier Rotary Presses, was completed in 2005. Fine bubble aeration system replaced the old mechanical air system in 2017.

Origin of the Subprogram:

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

Budget Summary:

Budget year	Project	Budget Year Cost
2018	2046 EEWWTF - Influent screen replacement	450,000
2018	2153 EEWWTP Effluent Flow Meter Replacement	50,000
2018	2583 Chlorine Contact Tank Isolation Piping Installation	400,000
2018	2705 HVAC Upgrades: Dewatering Areas	425,000
2018	2711 Engineering for NEPS/WWTF Backup Power	250,000
2019	2548 Dewatering System Odor Control System Expansion	250,000
2019	2650 Full Plant Medium Voltage Backup Power	3,700,000
2021	2651 Main Switchgear and Power Distribution Upgrade	1,500,000
PEND	2697 East End Dewatering System Expansion	850,000
Total Cost, All Years:		7,875,000

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

Subprogram # 29**Westbrook CSO Abatement****Division:** Wastewater - Westbrook**Manager:** Poulin, Charlene**Funding:** Bonds - Wastewater**Priority:** Regulatory mandate**Description:**

This project contemplates funding and programming the design and construction of projects recommended in a study that was completed by Woodard and Curran and Brown and Caldwell. The purpose of the study was to update the Westbrook CSO Master Plan.

Justification / Impact:

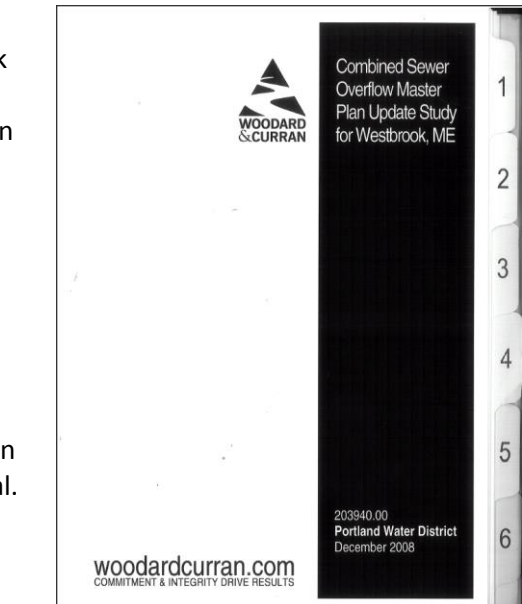
The District, City of Westbrook, and the DEP agreed that an upgrade to the existing CSO Master Plan was favored over work previously scheduled for the sewer between Brown and King Streets. The Westbrook/Gorham WWTF license was renewed in 2006. Written into the new license was a requirement for the District to submit a CSO Master Plan update and abatement schedule on or before December 31, 2008. This was completed on time and submitted to DEP for their approval

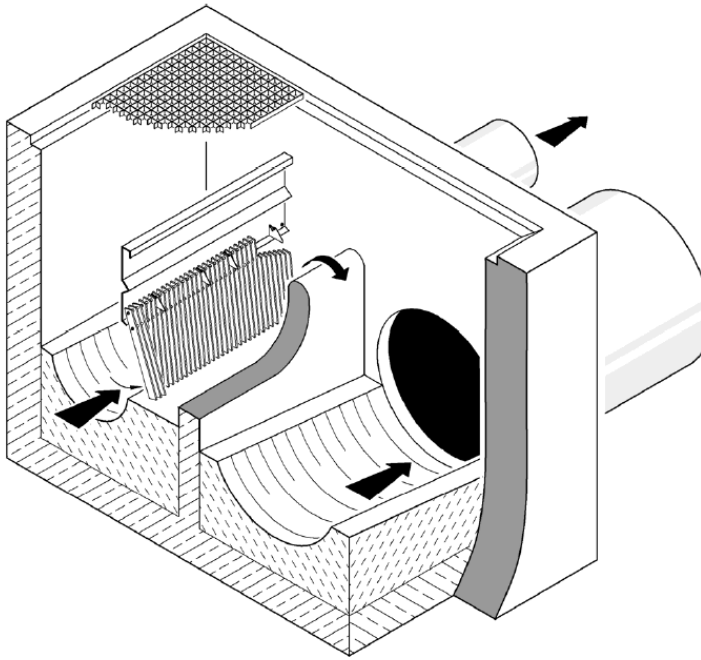
History:

King Street / Brown Street sewer work put aside in lieu of updating the Westbrook CSO Master Plan. Project awarded to Woodard and Curran/Brown and Caldwell. Updated Master Plan due on or before 12/31/08 for Department review and approval.

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

Budget year	Project	Budget Year Cost
2018	2524 Construction of Screens	200,000
2021	2521 Design New Storage Facility at Siphon Inlet	360,000
PEND	2522 Construction of New Storage Facility	3,200,000
PEND	2525 Evaluate size and options for Storage Facility	40,000
Total Cost, All Years:		3,800,000

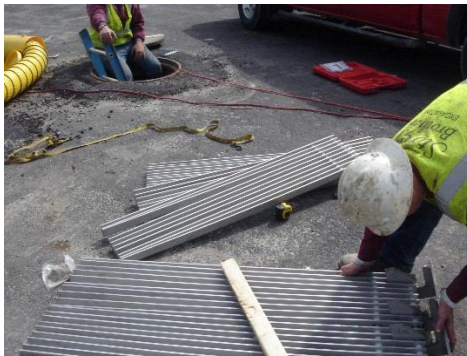
Previous Years on CIP: 2000 to present**Related Projects:****Procurement Issues:****Weir at Warren Ave CSO**



2017 - Design of Screens -Warren Ave, Dunn Street CSOs

2018 - Construction of Screens

Below - Mackworth Screens being installed. This is a City of Portland Project.



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>
2018	2315	Cumberland WW Pump Station - R&R	20,000
2019	2515	Cumberland WW Pump Stations - R&R	20,000
2019	2631	Stony Ridge Pump Station Upgrades	80,000
2019	2683	Ferne Lane PS Upgrade	30,000
2019	2684	Ledge Rd PS Upgrades	60,000
2019	2685	Brookside PS Upgrades	30,000
2020	2606	Cumberland WW Pump Stations - R&R	20,000
2021	2673	Cumberland WW Pump Stations - RR	20,000
2021	2686	Cumberland Meadows PS Upgrades	60,000
2021	2687	Smalls Brook PS Upgrades	75,000
2022	2706	Cumberland WW Pump Stations - R&R	20,000
Total Cost, All Years:			175,000

Previous Years on CIP:

2001 to present

Related Projects:

415 - Cumberland Pump Stations Capital Upgrades

Procurement Issues:

Condition Assessment – Cumberland Pump Stations



2016 – Longmeadow P.S. installed in 1983 – condition rating was 3.26 – Upgrades included new SCADA and pump control panels, pumps, valves, and electrical work. New rating is 4.5

2014 Cumberland Pump Station Report

Station	Rating	Station Type	Address
Brookside PS (2015)	3.18 4.5	Sub Dup	14 Brookside Drive
Cumberland Meadows	3.63	Sub Dup	12 Red Mill Way
Drowne Road	4.93	Sub Dup	2 Baxter Lane
Fern Ln PS	3.81	Sub Dup	26 Ferne Lane
Foreside Rd PS	3.75	Canned	82 Foreside Road
Ledge Rd PS	3.82	Sub Dup	23 Ledge Road Unit A
Longmeadow Dr PS (2016)	3.65 4.5	Sub Dup	17 Longmeadow Road
Ocean Terrace PS (2017)*	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		

*2017 project to be completed by first quarter 2018

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.

Level of Service – Reliability Performance

Water main break frequency - 10 breaks per 100 miles

History:

Cast iron mains in sizes 2 inches and above had been a standard from the late 1800s until the introduction of Ductile Iron pipe in the late 60s and early 70s and PVC and HDPE pipe in the 80s. The rigidity and lack of flexibility of cast iron has been attributed to failures such as frost movement, cross trenches, water hammers, contractor damages, as well as normal deterioration and corrosion through age. A percentage of these mains are unlined causing iron build up resulting in restricted flow and dirty water complaints. The District has a long term program to upgrade these mains.

Origin of the Subprogram:

The current list of projects is determined on the basis of water quality complaints, leak frequency data, age of main, and municipal/state reconstruction projects.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2018	1693 Water Main Replacement - Capital	6,000,000
2019	2507 Water Main Replacement - Capital	6,000,000
2020	1534 Water Main Replacement - Capital	6,000,000
2021	2663 Water Main Replacement - Capital	6,000,000
2022	2726 Water Main Replacement - Capital	6,000,000
Total Cost, All Years:		30,000,000

Previous Years on CIP:

All

Related Projects:

111 Galvanized Main Renewal Program

Procurement Issues:

Projects are contacted out by the District or through a Municipality or MDOT. It is the District's intent to seek cost effective ways of partnering with the municipalities and state on various projects.

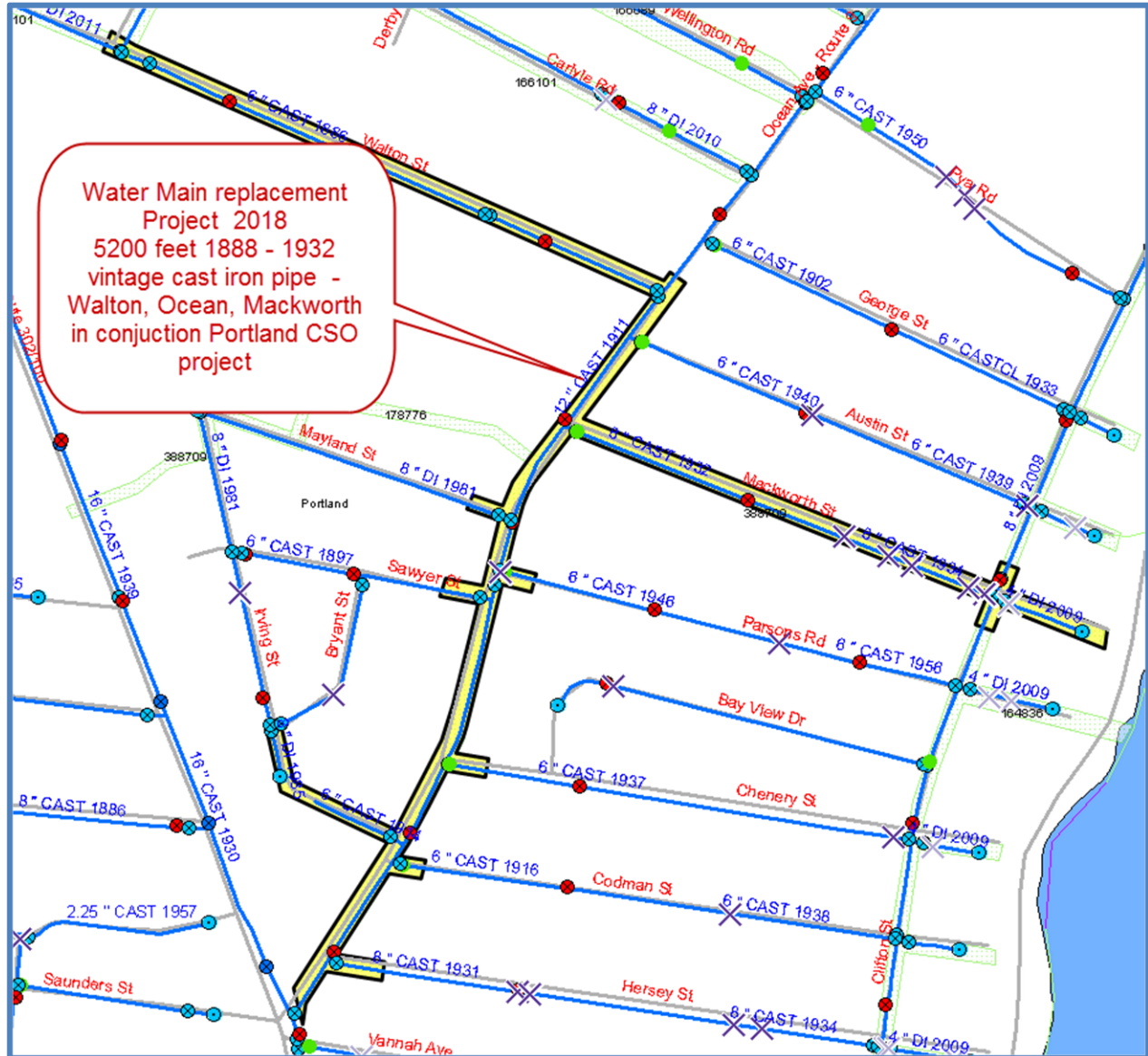
Subprogram # 43	Water Main Replacement – Capital
------------------------	---

	Anticipated Main Replacement Projects - 2018	MUN	Length	Partnering Agency
	River Road -302 to Heathwood	WI	1,600	Windham
	Walton, Canco to Ocean and Mackworth, Ocean to Clifton	PO	5,200	PO CSO
	Grasmere, Deerfield, Belmeade, Bedford - Forest to Brighton, Durham	PO	3,400	PO CSO
	Drew, Ship Channel, Danforth, Preble and Leighton	PO	3,000	SP CSO
SRF	Broadway (Anthoine Street to Elm Street)	SP	2,500	SP CSO
SRF	Pleasantdale Project *	SP	6,200	SP CSO
	New Gorham Road, Lewis to City line, Maple, Union, McKinley	WE	5,200	WE CSO
	Somerset Street (Elm to Forest)	PO	1,150	
	Preble, Somerset to Congress	PO	1,700	PO CSO
Estimated Total 2018			29,950	



District's Water Utility Specialist Joe Gray inspecting a new water service installation on the Mitchell Street, Westbrook. The District replaced 400 feet of 8" cast iron 1955 vintage water main with a new 8" ductile iron water main on Mitchell Street as part of the Westbrook CSO separation project.

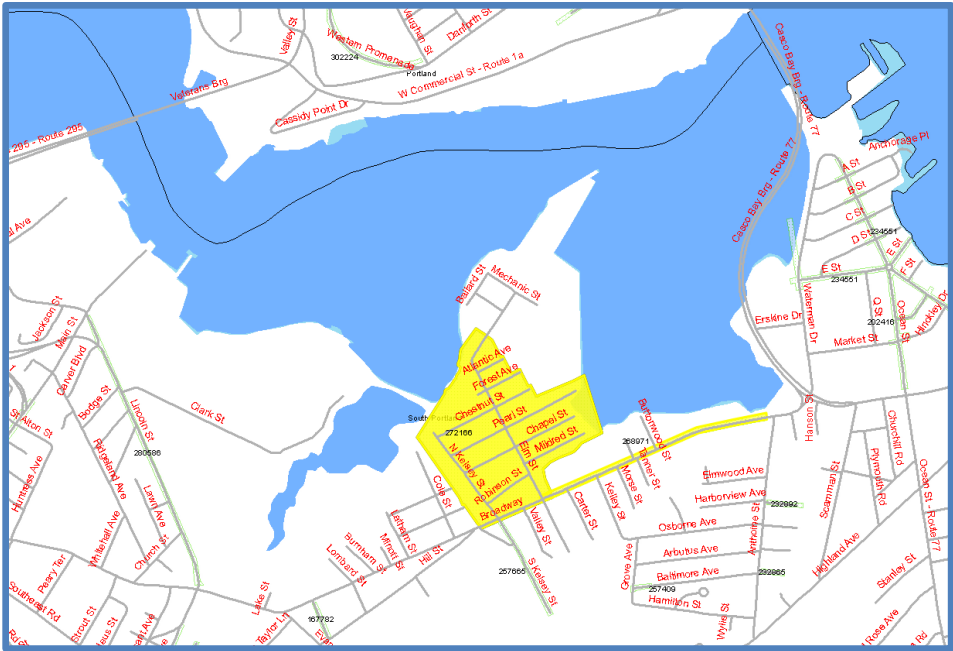
City of Portland – CSO Storm Water Separation Project – Mackworth Basin



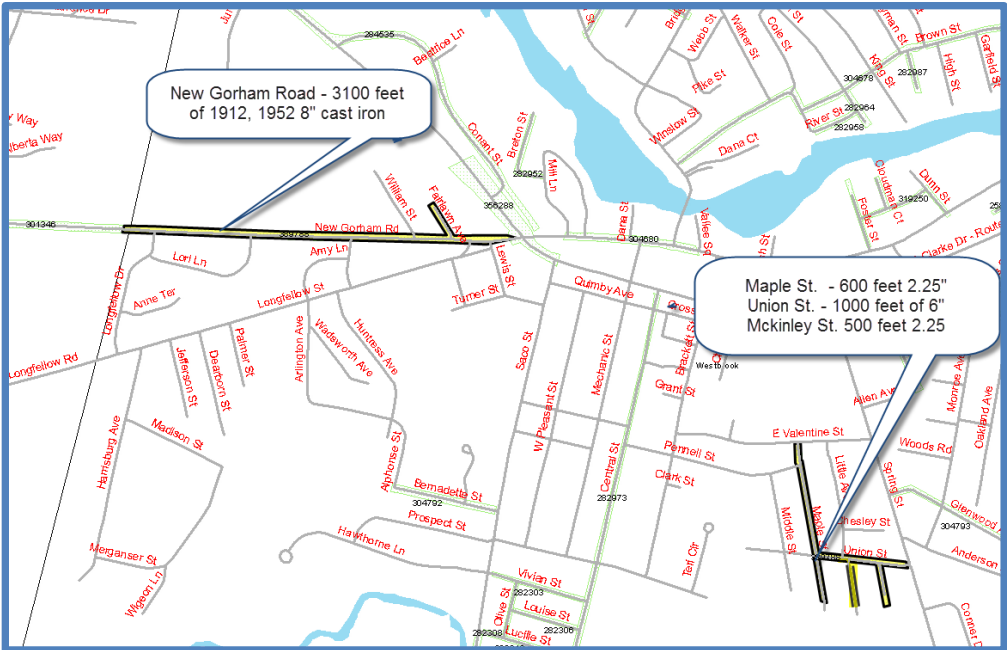
The following old water mains will be replaced in conjunction with the City of Portland Combined Sewer Overflow (CSO) storm separation project.

- Walton Street, Canco to Ocean Ave. - 1600 feet of 6" 1888 cast iron
- Ocean Ave Walton to Forest- 2200 feet of 12", 1911 cast iron (1 leak)
- Mackworth St. – Ocean to Clifton – 1200 feet of 6" 1932 cast iron (6 leaks)
- Irving Street – Ocean to Bryant – 200 feet of 6" 1914 cast iron

City of South Portland – CSO Storm Water Separation Project – Pleasentdale/Broadway Area



City of Westbrook – CSO Storm Water Separation Project – New Gorham Rd. and Maple Street



Subprogram # 46**Water System Security****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R - Water**Priority:** Security of facilities**Description:**

This program is to improve the physical security of the District's water facilities. The program supports installing and upgrading security measures on District property and facilities. These measures included perimeter fencing, signage, access control, cyber keys and locks, video surveillance and monitoring, security lighting and improved SCADA monitoring

Justification / Impact:

The District has performed two Vulnerability Assessments (2003, 2015) and has been following the recommendations from these reports.

History:

In the fall of 2004 and summer of 2005 fencing was installed on the East and West side of the lower bay inside the 2 mile limit. This was funded through the CIP. In 2005 hatch covers along with alarms were installed over tank hatches and a cyberlock system was installed on all SCADA panels. This was funded by a grant from MEMA - Homeland Security. In subsequent years video surveillance and access control was expanded to all major facilities across the District along with continued improvements to perimeter fencing and access control.

**Origin of the Subprogram:**

The vulnerability assessment completed in March of 2003 indicated that physical protection of existing facilities could be improved. Many of those recommendations were completed and a new Vulnerability Assessment was completed in 2015 and new recommendations are now determining the water system security improvements

Budget Summary:

Budget year	Project	Budget Year Cost
2018	2421 Water System Security Improvements	25,000
2019	2511 Water System Security Improvements	25,000
2020	2603 Water System Security Improvements	25,000
2021	2668 Water System Security Improvements	25,000
2022	2731 Water System Security Improvements	25,000
Total Cost, All Years:		125,000

Previous Years on CIP: 2004 to present

Related Projects:

Procurement Issues: Standard purchasing procedures will apply.

Subprogram # 50**Technology Upgrade and Replacement****Division:** Allocation**Manager:** Davis, Chad**Funding:** R & R - Water**Priority:** Routine replacement**Description:**

PWD has made a commitment to using technology as a means of operating more efficiently. This project is therefore an ongoing one. Project crosses all department lines and major processes. Focus is on establishing and maintaining a stable reliable network and databases to support PWD decision making, planning, budgeting and daily work activities. Project must also plan for growth and adaptation as new technology solutions become feasible.

Justification / Impact:

While economic payback can be demonstrated for many of the line items in this project, replacement of obsolete facilities is also a factor in technology investment. A fast, secure, reliable network and databases impacts PWD ability to be proactive and competitive. Better available information that is timely supports a customer centric business perspective.

History:

Technology infusion into PWD began anew after EMA study in 1996 recommended the use of technology to reduce a competitive gap, improve customer service and operating efficiency. Early on a technology master plan was developed as a guide for our investments. Key development work focused on building a stable reliable network infrastructure, acquiring best fit software solutions and populating the associated databases and documenting standard operating procedures. Most of the work was done in team environments to ensure the technology solution met the needs of the target PWD employee group. The PWD network consists of a 206 PC/Laptop/Thin Client wide area network supported by 39 servers housing various applications and data sources supporting asset management, customer billing, financials, GIS, voice mail, email, and VoIP phone. Our network also supports over fifty employees in the field via a wireless data network. Technology advances and cost savings continue to influence the design and delivery of information to our employees and customers.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2018	2414 Technology Upgrades	200,000
2018	2542 Hansen System Replacement (Assets, Billing, Customer)	3,800,000
2019	2025 Technology Upgrades	200,000
2020	2449 Technology Upgrades	200,000
2021	2656 Technology Upgrades	200,000
2022	2718 Technology Upgrades	200,000
Total Cost, All Years:		4,800,000

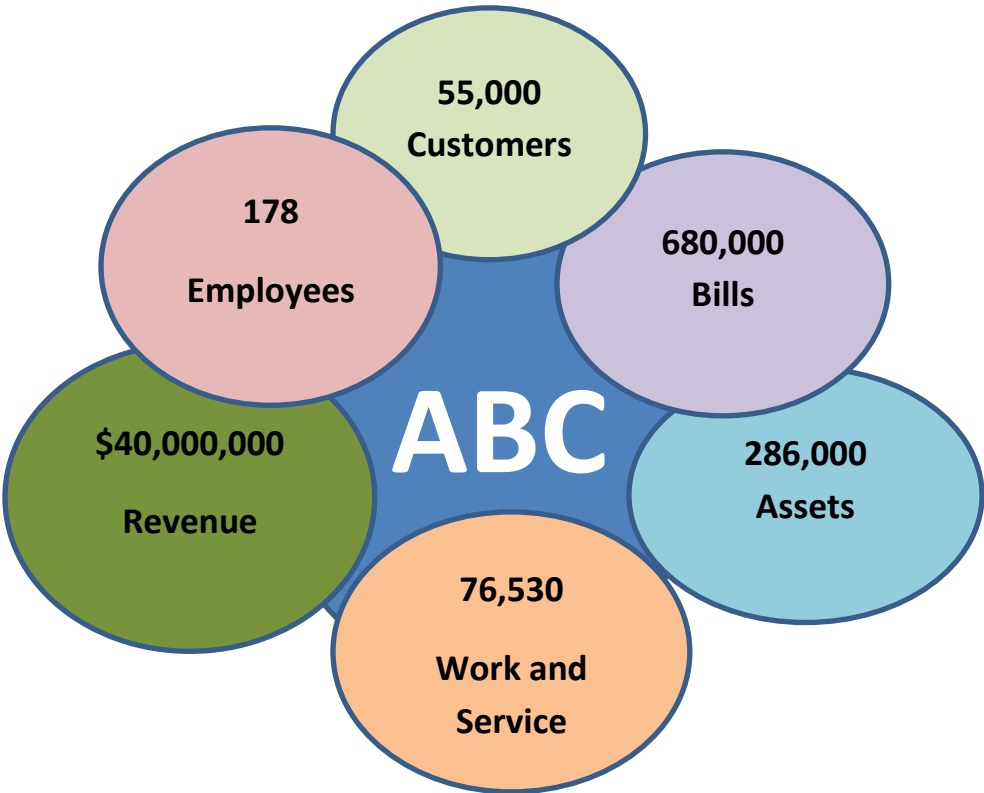
Previous Years on CIP:

All since 1996

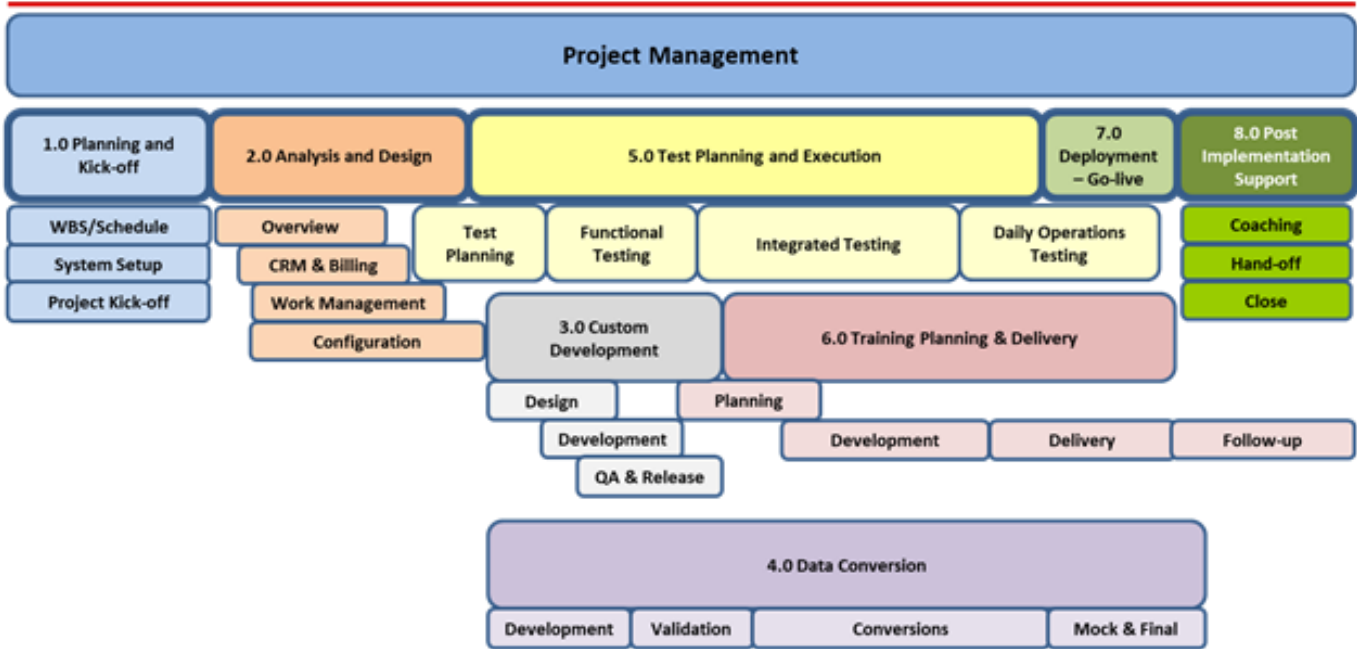
Related Projects:**Procurement Issues:**

Standard procurement procedures are used for major hardware, software and consulting purchases.

Assets - Billing - Customer Relations Project



Implementation Methodology



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:**

Budget year		Project	Budget Year Cost
2018	2312	Cape Elizabeth Pump Stations - R&R	30,000
2019	2513	Cape Elizabeth Pump Stations - R&R	30,000
2020	1104	Algonquin PS Upgrade	120,000
2020	2610	Cape Elizabeth Pump Stations - R&R	30,000
2020	2675	Stonegate South PS Upgrade	90,000
2020	2677	Peabbles Cove PS Upgrades	60,000
2021	2672	Cape Elizabeth Pump Stations - R&R	30,000
2022	2708	Cape Elizabeth Pump Stations - R&R	30,000
Total Cost, All Years:			420,000

Previous Years on CIP: 2005 to present**Related Projects:** Subprogram 407

Condition Assessment – Cape Elizabeth Pump Stations

<u>2014 Cape Elizabeth Pump Station Report</u>			
Station	Rating	Station Type	Address
Algonquin Pump Station	3.30	Sub Dup	10 Waumbek Road
Birch Knolls	4.00	Sub Sing	19 Birch Knolls
Broad Cove No. Pump Station	3.79	Sub Tri	53 Broad Cove Road
Broad Cove So. Pump Station (2016)	3.15 4.5	Sub Dup	32A Broad Cove Road
Clifford	4.00	Sub Sing	886A Shore Road
Cragmoor North	3.65	Sub Dup	7A Cragmoor
Cragmoor South	3.30	Sub Sing	876A Shore Road
Cross Hill	3.65	Sub Dup	59 Wells Road
Little John (2018)	2.76	Packaged Dry Pit	7 Little John Road
Garden Ln Pump Station (2014)	5	Sub Dup	5 Garden Lane
Gull Crest - Public Works Building	3.08	Sub Dup	9 Cooper Drive
Gull Crest - Public Works Transfer Station	3.04	Sub Sing	21 Dennison Drive
Hunts Point	3.90	Sub Dup	1A Hunt's Point Road
Maiden Cove Pump Station Postponed until 2019	1.98	Ejection	5 Kenyon Lane
Mitchell Rd Pump Station (2017)	3.16	Sub Dup	468 Mitchell Road
Oakhurst Pump Station	2.94	Sub Dup	123 Oakhurst Road
Ottawa Rd Pump Station	2.09	Packaged Dry Pit	14 Ottawa Road
Pachios	3.97	Sub Dup	880A Shore Road
Peabbles Cove Pump Station	3.31	Sub Dup	15 Peabbles Cove Road
Peabbles Point Pump Station	2.87	Sub Dup	56 Shipwreck Cove Road
Running Tide Pump Station	3.59	Sub Dup	13A Running Tide Road
Spurwink Pump Station	4.16	Canned	445 Spurwink Ave
Stonegate North (2016)	3.47 4.5	Sub Dup	30 Stonegate Road
Stonegate South	3.04	Sub Dup	8 Stonegate Road
Tall Pines East Pump Station	4.67	Sub Dup	225 Ocean House Road
Tall Pines Pump Station	2.58	Sub Dup	30 Tall Pine Road
Wildwood Pump Station (2015)	2.95 4.5	Sub Dup	34A Wildwood Drive
Cape Elizabeth Average	3.38		
PWD Overall Average (74 Stations)	3.47		

Subprogram # 53**Water Valve Replacement****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R - Water**Priority:** Routine replacement**Description:**

Replacement of deteriorated valves in the distribution system.

Justification / Impact:

Replacement is determined and prioritized through data and workorders generated from our Distribution Valve Operation Program, Inspectors Valve Operation Reports, Leak Reports, Flushing Program Data, and the Distribution Maintenance Crews.

History:

Internal inspection of valves replaced has shown decay of the discs and spreaders which render the valves non-operational and ineffective in isolating a section of the distribution system. External inspection has shown corrosion of nuts and bolts, corroded operating nuts, and bent operating stems. Repacking and rebolting these valves has only provided a costly and temporary solution to the external portion of the valve. Replacement insures the valve will be up to standard and operational for many years to come with no required maintenance.

**Origin of the Subprogram:**

Our target is to replace 50 (+ or -) valves per year.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2018	2416 Replace Distribution Valves	200,000
2019	2504 Replace Distribution Valves	200,000
2020	2593 Replace Distribution Valves	200,000
2021	2669 Replace Distribution Valves	200,000
2022	2724 Replace Distribution Valves	200,000
Total Cost, All Years:		1,000,000

Previous Years on CIP:

All

Related Projects:**Procurement Issues:**

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

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

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

Justification / Impact:

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

History:

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

Origin of the Subprogram:

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

Budget Summary:

Budget year	Project	Budget Year Cost
2018	2418 Water Main Replacement - Seasonal Mains	25,000
2019	2506 Water Main Replacement - Seasonal Mains	25,000
2020	2601 Water Main Replacement - Seasonal Mains	25,000
2021	2662 Water Main Replacement - Seasonal Mains	25,000
2022	2725 Water Main Replacement - Seasonal Mains	25,000
Total Cost, All Years:		125,000

Previous Years on CIP: All**Related Projects:** 57**Procurement Issues:** This work is accomplished by District Staff, equipment and material.

Subprogram # 60**Gorham WW Pump Stations - R&R****Division:** Wastewater - Gorham Village**Manager:** Poulin, Charlene**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

This is an ongoing project designed to maintain and improve Gorham wastewater pump stations. Modifications and upgrades will assure adequate capacity, reliability and safety.

Justification / Impact:

Components of the older pump stations have reach their useful life and obsolete equipment should be replaced. Replacing this equipment before it fails completely will reduce the amount spent on operating and maintaining the equipment

History:

This planned renewal and replacement will assit operations in moving toward a goal of performing more predictive and preventive maintenance instead of emergency maintenance.

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

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2018	2319 Gorham WW Pump Stations - R&R	15,000
2019	2517 Gorham WW Pump Stations - R&R	10,000
2019	2689 Briarwood PS Upgrades	60,000
2019	2690 Meadowland PS Upgrades	60,000
2020	2688 Park South PS Upgrades	20,000
2021	2679 Gorham WW Pump Stations - R&R	20,000
2022	2707 Gorham WW Pump Stations - R&R	20,000
2023	2609 Gorham WW Pump Stations - R&R	10,000
Total Cost, All Years:		215,000

Previous Years on CIP: 2000 - present**Related Projects:** 71

Procurement Issues: Primarily staff labor for installation using standard parts procured competitively.

Subprogram # 61**Water Services - Renew Domestic & Fire****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R - Water**Priority:** Routine replacement**Description:**

Replace obsolete galvanized, cast iron, cement lined iron, and 50 year old copper services with current materials and sized for future conditions.

Justification / Impact:

Replacement is determined and prioritized by water quality concerns, leaking conditions, street reconditioning, distribution main replacement, and area/report analysis through District Data. This Project is also coordinated with the various municipal paving projects in order to minimize future inflated municipal street opening costs and repairs.

History:

Galvanized and cast iron were common materials used in the installation of services from the early 1900s to the late 1940s. Copper was also used starting in the 1930s. The relatively inferior material of galvanized and cast iron are subject to rust related water quality and restricted flow problems from plugging as well as leak frequency from deterioration and corrosion. Older copper lines (50 years old + or -) are starting to show signs of leak failures from the old tube nut fittings used to couple fittings together. From a cost and end product comparison it is more efficient to replace than repair. The District has a long term program to replace and upgrade all sub standard services.

Origin of the Subprogram:

There are approximately 1,000 (1/2" to 2" size) galvanized, cement lined iron, and cast iron domestic services, and an additional 11,000 copper services installed prior to 1950. We also have 260 cast iron services installed prior to 1950. Our Project is to replace at least 300 services per year.

Budget Summary:

Budget year	Project	Budget Year Cost
2018	2419 Water Services Replacement	600,000
2019	2509 Water Services Replacement	600,000
2020	2594 Water Services Replacement	600,000
2021	2665 Water Services Replacement	600,000
2022	2728 Water Services Replacement	600,000
Total Cost, All Years:		3,000,000

Previous Years on CIP:

All

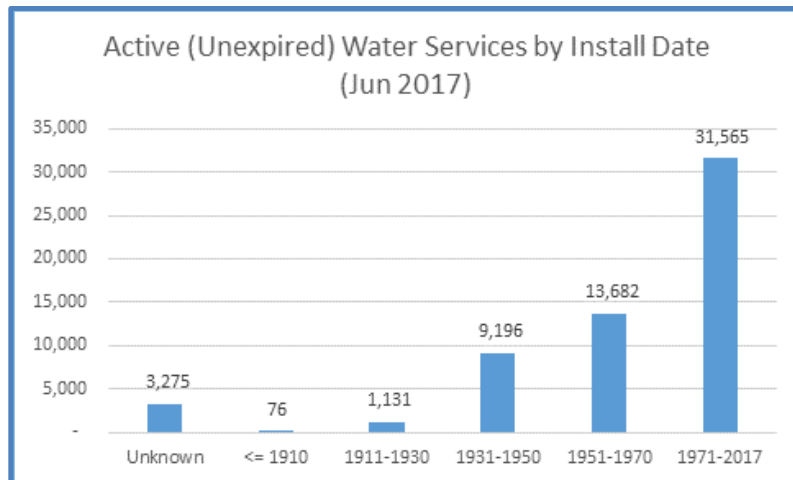
Related Projects:**Procurement Issues:**

Project to be performed using District Staff, equipment, and materials and contracted through our main replacement projects.

Subprogram # 61**Water Services - Renew Domestic & Fire****Active (Unexpired) Water Services by Install Date**

Install Date	# Services	%
Unknown	3,275	5.9%
<= 1910	76	0.1%
1911-1930	1,131	2.0%
1931-1950	9,196	16.5%
1951-1970	13,682	24.6%
1971-2017	31,565	56.7%

Total **55,650**



Subprogram # 63**Meter Replacement and Leak Detection**

Division: Allocation
Funding: R & R - Water

Manager: Wallace, Jim
Priority: Routine replacement

Description:

This work includes the cost to maintain the Long Service Meter Change program, and replacement of damaged meters. It also include the purchasing of leak detection and monitoring equipment. The District completed a change out all of its 50,000 meters to radio read system in 2009. The meters and batteries are expected to last 20 years for the smaller meters and less for the larger meters.

Justification / Impact:

This is a required program to meet PUC requirements and maintain accurate billing of customer accounts and account for loss water. Since long service meters typically under estimate the actual water flow, the Long Service Meter Change program is needed to assure that the District receives all the revenue to which it is entitled.

History:

New terms and conditions have recently been instituted to increase the long service interval from 15 to 20 years.

Origin of the Subprogram:

These costs do not reflect the value of meters and radio reading devices which is contributed by customers.

Budget Summary:

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2018	2411	Meter Replacement and Leak Detection	250,000
2019	2502	Meter Replacement and Leak Detection	250,000
2020	2654	Meter Replacement and Leak Detection	250,000
2021	2655	Meter Replacement and Leak Detection	250,000
2022	2715	Meter Replacement and Leak Detection	250,000
Total Cost, All Years:			1,250,000

Previous Years on CIP:

all

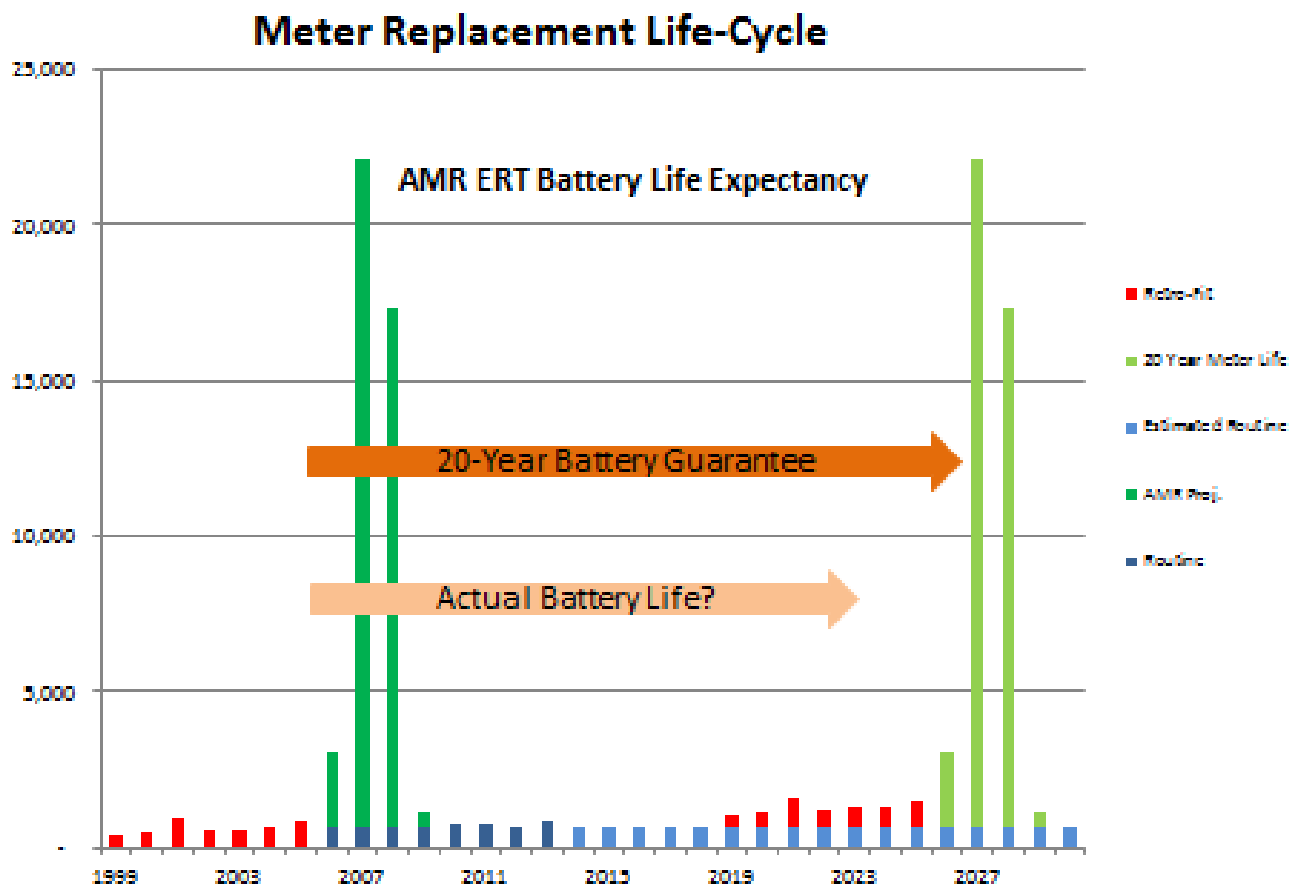
Related Projects:

none

Procurement Issues:

Standard meter procurement procedures,



Subprogram # 63**Meter Replacement and Leak Detection**

The above graph is projecting the life cycle of the District's 50,000 meters. The next major meter change-out is projected for 2026-2028.

Subprogram # 65**Water Hydrants Replacement****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R - Water**Priority:** Routine replacement**Description:**

Replace and upgrade obsolete hydrants to meet current safety and operational standards, and to insure inventory parts availability for hydrant repairs.

Justification / Impact:

Replacement is determined and prioritized by: (1) hydrant failures (major damage and/or external leak,) (2) upgrade and replacement of obsolete sub standard hydrants based on (age - safety standards - repair parts availability - cost comparison to replace or repair,) (3) distribution main replacement program, (4) municipal and state reconstruction projects and (5) data gathered from the Hydrant Repair and Reconditioning Programs and the Winter Hydrant Inspection Program.

History:

The O & M Hydrant Repair/ Reconditioning Programs and the Hydrant Winter Inspection Programs have been in place since the early 60s. These programs insure that our hydrants meet fire protection standards and provide direction for our C. I. P. Replacement Program. In recent times the ability to procure replacement parts for the 620 Matthews Post hydrants (Vintage late 1800s to the late 1940s) has become difficult or impossible. The 870 Darling B-50 hydrants (vintage early 1950s to early 1960s) require major internal rebuilding. Both hydrant makes are not traffic model hydrants and fail to have a sheer 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:

Budget year	Project	Budget Year Cost
2018	2417 Hydrant Replacement	200,000
2019	2505 Hydrant Replacement	200,000
2020	2600 Hydrant Replacement	200,000
2021	2661 Hydrant Replacement	200,000
2022	2723 Hydrant Replacement	200,000
Total Cost, All Years:		1,000,000

Previous Years on CIP:

All

Related Projects:**Procurement Issues:**

Project is performed using District staff, equipment, and materials

Subprogram # 68**Facilities Improvements**

Division: Allocation
Funding: R & R - Water

Manager: Welch, Andrew
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:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2018	2407 Facilities Upgrade R&R	25,000
2018	2719 Douglass St. HVAC/CHP Master Plan	75,000
2018	2720 Ecology Center /Nixon Room HVAC Improvements	65,000
2018	2721 Douglass St Offices/ Breakroom Renovation	60,000
2018	2722 Douglass St, Boiler Room Roof Replacement	75,000
2019	2535 Douglass Street Slate Roof replacement - Phase 2	250,000
2019	2538 Facilities Upgrade R&R	100,000
2019	2540 Douglass Street - Electrical Improvements	100,000
2020	2501 Facilities Upgrade R&R	200,000
2020	2536 Douglass Street Roof replacement Phase 3	250,000
2021	2653 Facilities Upgrade R&R	300,000
2022	2736 Facilities Upgrade R&R	300,000
2023	872 Demolish Douglass St. Stock Platform	20,000
2023	1070 Lunchroom Addition	100,000
Total Cost, All Years:		1,920,000

Previous Years on CIP: 2000
Related Projects: None
Procurement Issues:



**2017 – Douglass Street – 3rd floor
Exterior Wall Replacement Project.**

Contractor removing the old wall. This was a \$250,000 project



**2017 – Douglass Street – Gas conversion
project**

Installation of high-pressure gas main service to newly retrofitted oil burner to natural gas. This was a \$30,000 project. Expected first year's savings is \$18,000.

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:**

Budget year	Project	Budget Year Cost
2018	2427 Portland WW Pump Stations - R&R	100,000
2018	2637 Stroudwater Pump Station Upgrades	110,000
2018	2703 Northeast PS Roof Replacement	125,000
2019	1875 Systems Generator Installation - Portland	50,000
2019	2638 Garrison St. PS Upgrades	275,000
2020	2692 Congress St PS Upgrades	275,000
2020	2693 Westbrook St PS Generator	50,000
2021	2694 India St PS Generator	200,000
2022	2709 Portland WW Pump Stations- R&R	50,000
2022	2710 Portland WW Pump Stations- R&R	50,000
PEND	2567 Northeast Generator Replacement	650,000
Total Cost, All Years:		1,935,000

Previous Years on CIP:

2003

Related Projects:

420 - Portland WW Pump Station Capital Upgrade Program

Procurement Issues:

Subprogram # 110**SCADA/Process Control - Water****Division:** Water - General**Manager:** Richard, Emile**Funding:** R & R - Water**Priority:** Upgrade obsolete facility**Description:**

The program supports 30 water sites across the District in upgrading and replacing the exiting Supervisory Control and Data Acquisition (SCADA) equipment. The work needed is replacement of hardware and software to be compatible to the District SCADA standards and provide for increased automation of the water systems and treatment. Programmable Logic Controllers (PLC) have been replaced across the District to meet the new standards and remove outdated, non-maintainable equipment

Justification / Impact:

The benefit of this program to increase the automation and reduce the staff hours needed to perform routine activities for the systems and treatment plants across the District.

History:

The District started changing out the system in 2003 by replacing the existing 20 year-old system and installing new SCADA equipment where it did not exist. Most systems have been retrofitted or replaced but more automation of these systems will continue

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

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2018	2412	Miscellaneous Control Project Upgrades	50,000
2019	1807	Miscellaneous Control Project Upgrades	50,000
2020	2174	Miscellaneous Control Project Upgrade	50,000
2020	2613	SLWTF SCADA PC Replacement Project	18,000
2020	2616	SLWTF SCADA Server Replacement Project	16,000
2021	2659	SCADA /Process Control - Water	50,000
2022	2717	Micellaneous Control Projects Upgrades	50,000
Total Cost, All Years:			284,000

Previous Years on CIP: 2003**Related Projects:** 177**Procurement Issues:**

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:

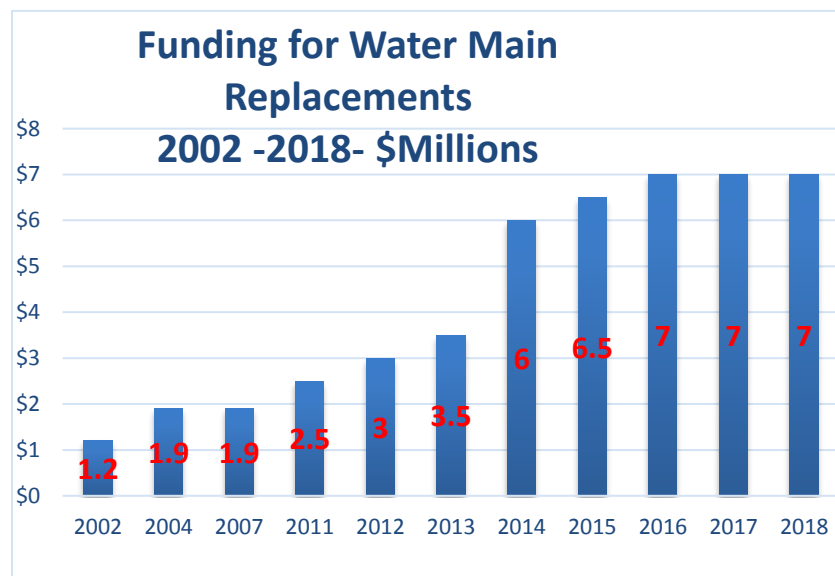
This is a cost saving and water quality improvement process. Mains selected for replacement are prioritized on the basis of water quality complaints including low volumes, leak frequency data, and age of existing plant. Commitment to Municipal and MDOT based on street reconstruction, and paving is also 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:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2018	1675 Water Main Replacement - R&R	1,000,000
2019	2508 Water Main Replacement - R&R	1,000,000
2020	2599 Water Main Replacement - R&R	1,000,000
2021	2664 Water Main Replacement - R&R	1,000,000
2022	2727 Water Main Replacement - R&R	1,000,000
Total Cost, All Years:		5,000,000

Previous Years on CIP:

All

Related Projects:

43 Cast Iron Main Renewal

Procurement Issues:

Project will be placed out to bid

Subprogram # 119**Ottawa Rd. CSO Abatement****Division:** Wastewater - Cape Elizabeth**Manager:** Firmin, Scott**Funding:** Bonds - Wastewater**Priority:** Regulatory mandate**Description:**

This is currently an unlicensed CSO point. However, ongoing collector sewer reconstruction by the Town of Cape Elizabeth and the City of South Portland is expected to reduce wet weather flow in this area so that the CSO structure can be closed or abandoned. DEP is aware of this work and is supportive of postponing any District action pending the impact of the afore mentioned sewer line work.

Justification / Impact:

If ultimately required - it is due to regulatory issues. The benefit will be environmental because less storm water is discharged to Casco Bay.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
PEND	1724 Ottawa Rd. Pump Station Upgrade	350,000
Total Cost, All Years:		350,000

Ottawa Road Pump station – installed in 1976

Subprogram # 122**Water Facilities Renewal and Replacement****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R - Water**Priority:** Routine replacement**Description:**

This is an ongoing project designed to maintain and improve water pump stations, treatment facilities and related infrastructure. Modifications and upgrades will assure adequate capacity, reliability and safety of these facilities.

Justification / Impact:

Components of the older pump stations have reach their useful life and obsolete equipment should be replaced. Replacing this equipment before it fails completely will reduce the amount spent on operating and maintaining the equipment

History:

This planned renewal and replacement will assist operations in moving toward a goal of performing more predictive and preventive maintenance instead of emergency.

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

Budget year	Project	Budget Year Cost
2018	2713 Water Facilities R&R	150,000
2019	2175 Water Facilities R&R	50,000
2019	2378 SLWTF HVAC Controls Replacement	50,000
2019	2714 Steep Falls Finished Water Piping Replacement	100,000
2020	2252 Water Facilities Renewal and Replacement	50,000
2021	2660 Water Facilities Renewal and Replacement	50,000
2022	2454 SLWTF Ammonia Storage Tank Replacement	75,000
Total Cost, All Years:		525,000

Previous Years on CIP:

2007 to present

Related Projects:**Procurement Issues:****2018 – Water Facilities R&R – Projects scheduled**

- Switchgear Spare Breakers for SLWTF
- Chemical Pumps/Motors/Drives for SLWTF
- T-Valve Roof
- Mackworth Electrical Service renewal
- Replace T-Valve Air Compressors

Subprogram # 131**Portland CSO Mitigation****Division:** Wastewater - Portland**Manager:** Rodriguez, Paul**Funding:** Bonds - Wastewater**Priority:** Regulatory mandate

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 Dry Weather Overflows and 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.

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

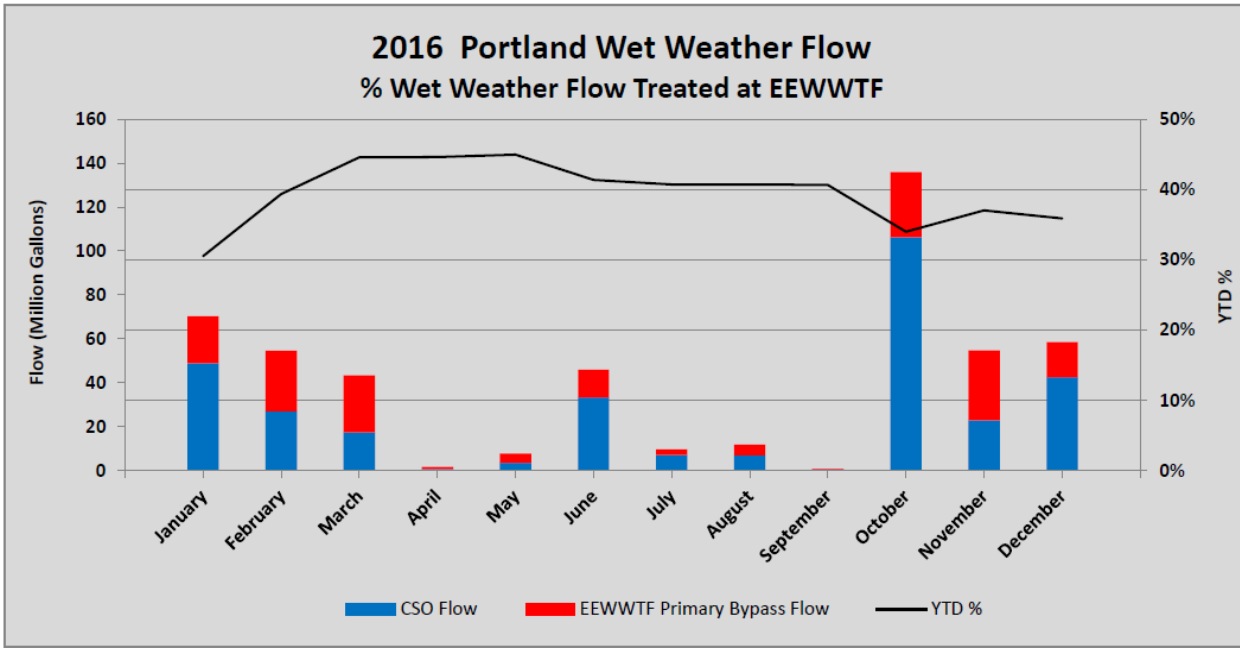
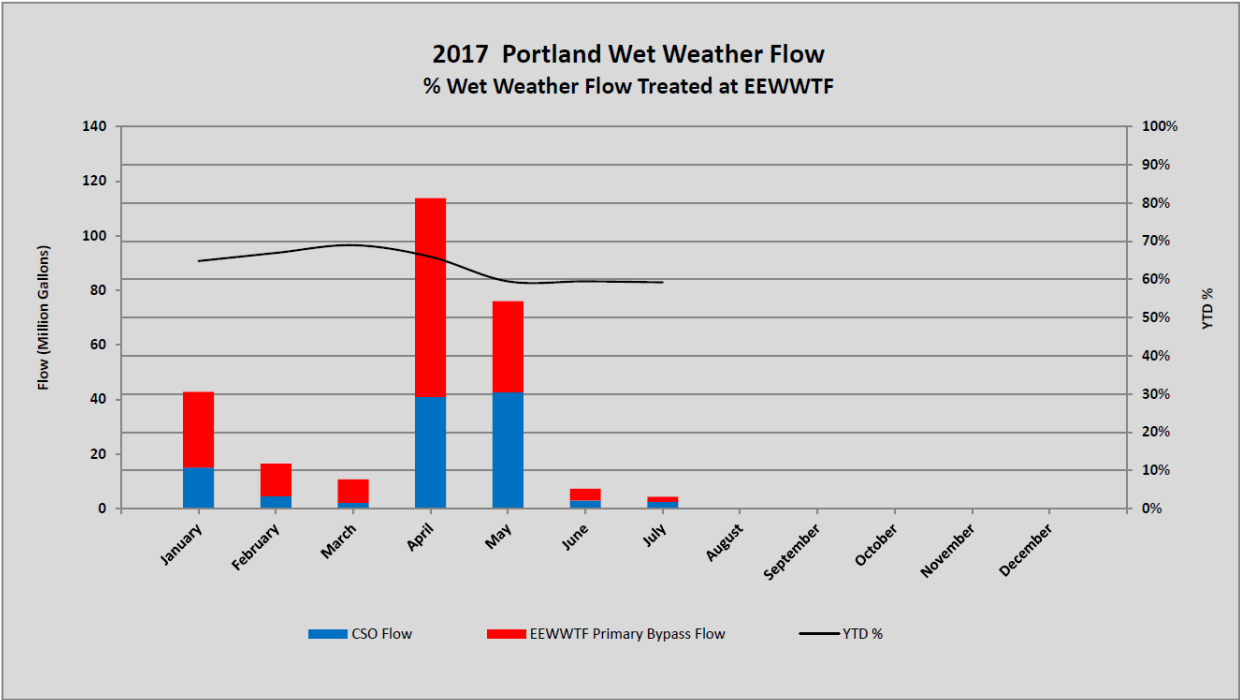
<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2018	2577 India St and NEPS Tide Gate Replacement	400,000
		Total Cost, All Years: 400,000

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

Subprogram # 131

Portland CSO Mitigation

The charts 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. Recent studies and evaluations include the Aeration System Alternatives Analysis (2015) and the Secondary Clarifier Condition Assessment (2016)

Origin of the Subprogram:

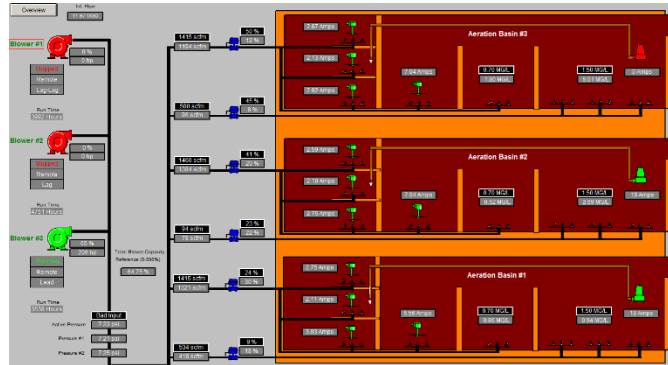
Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2019	992 Secondary Clarifier Improvements Design	250,000
2019	2712 Aeration Upgrade Detailed Design	750,000
2020	2578 Secondary Clarifier Improvements - Construction	2,300,000
2020	2587 Aeration Upgrade	7,150,000
Total Cost, All Years:		10,450,000

Previous Years on CIP: 2001 to present

Subprogram # 177**SCADA/Process Control - Wastewater****Division:** Wastewater - Portland**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



In 2017 the new aeration system went on line. The system is fully automated and represented in District's SCADA system

Justification / Impact:

The benefit of this program to increase the automation and reduce the staff hours needed to perform routine activities for the systems and treatment plants across the District.

History:

The District started changing out the system in 2003 by replacing the existing 20 year-old system across the 6 wastewater communities and installing new SCADA equipment where it did not exist. Most systems have been retrofitted or replaced but more automation of these systems will continue.

Budget Summary:

Budget year	Project	Budget Year Cost
2018	2428 Process Control and SCADA upgrades	50,000
2019	2028 Process Control and SCADA upgrades	50,000
2019	2463 EEWWTP SCADA PC Renewal Program	14,000
2019	2597 SCADA Radio Modem Replacement Project - phase 3	300,000
2020	1683 Process Control and SCADA upgrades	50,000
2020	2467 Westbrook SCADA Server Renewal Program	19,000
2020	2598 SCADA Radio Modem Replacement Project - phase 4	350,000
2020	2614 Westbrook SCADA Server Replacement Project	16,000
2020	2615 EEWWTP SCADA Server Replacement Project	16,000
2021	2670 SCADA/ Process Control - Wastewater	50,000
2022	2464 Douglass St SCADA PC Renewal Program	10,000
PEND	2369 High Flow Control Programing	25,000
Total Cost, All Years:		836,000

Previous Years on CIP: 2003 to present**Related Projects:** 110

Subprogram # 180**Windham - Little Falls WW System R&R****Division:** Wastewater - Windham Little Falls**Manager:** Poulin, Charlene**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

This program provides for a planned approach to the replacement of obsolete equipment for the Windham-Little Falls wastewater pump stations. Few improvements had taken place during the first 25 - years of operation. The scope of this program is based on the amount of required maintenance and current performance of the existing infrastructure. The scope includes complete replacement of drives, motors, pumps, controls and other major equipment to ensure operational reliability of the pump stations.

Justification / Impact:

When pump stations have reached the end of their useful design life (typical 20-years) obsolete equipment should be replaced. These improvements will ensure the pump stations continue to deliver adequate flows to the WWTP with increased reliability. Additionally, these needed improvements will allow for a Preventative Maintenance plan that will keep the pump stations operating at the design level well into the life of the upgrade.

History:

The original Windham-Little Falls waste water system was built in 1987. The original system included two pump stations. These two pump station were to be replaced with a single new pump station as part of the 2008 redevelopment of the Keddy Mill site. This project was never completed and the existing pump stations are now more than 25-years old.

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

Budget year		Project	Budget Year Cost
2018	2318	Windham - Little Falls WW System 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
2020	2695	Route 202 PS Upgrades	60,000
2021	2682	Windham - Little Falls WW System R&R	20,000
2022	2732	Windham - Little Falls WW System R&R	20,000
Total Cost, All Years:			165,000

Previous Years on CIP: 2000 to present**Related Projects:** 181**Procurement Issues:** Engineering and contracting will be via standard competitive retention procedures.

Subprogram # 181**Windham - Little Falls WW System Capital****Division:** Wastewater - Windham Little Falls**Manager:** Poulin, Charlene**Funding:** Bonds - Wastewater**Priority:** Routine replacement**Description:**

This program provides for a planned approach to the replacement of obsolete equipment for the Windham-Little Falls wastewater pump stations. Few improvements had taken place during the first 25 - years of operation. The scope of this program is based on the amount of required maintenance and current performance of the existing infrastructure. The scope includes complete replacement of drives, motors, pumps, controls and other major equipment to ensure operational reliability of the pump stations.

Justification / Impact:

When pump stations have reached the end of their useful design life (typical 20-years) obsolete equipment should be replaced. These improvements will ensure the pump stations continue to deliver adequate flows to the WWTP with increased reliability. Additionally, these needed improvements will allow for a Preventative Maintenance plan that will keep the pump stations operating at the design level well into the life of the upgrade.

History:

The original Windham-Little Falls waste water system was built in 1987. The original system included two pump stations. These two pump station were to be replaced with a single new pump station as part of the 2008 redevelopment of the Keddy Mill site. This project was never completed and the existing pump stations are now more than 25-years old.

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

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2019	2646	Depot Street Sewer Redesign Plan	75,000
2020	2645	Depot Street Pump Station - Phase 1	425,000
2021	2647	Depot Street Pump Station - phase 2	387,500
Total Cost, All Years:			887,500

Previous Years on CIP:**Related Projects:** 180**Procurement Issues:** Engineering and contracting will be via standard competitive retention procedures.

Subprogram # 203 Upgrade

Water Storage Facility Maintenance &

Division: Water - General

Manager: Johnson, Gordon

Funding: R & R - Water

Priority: Routine replacement

Description:

This project consists of developing a maintenance program. Maintenance that may be necessary includes leak repair, painting, inside liners, base and /or cover needs. Once this work is complete, a multi-year program of maintenance contracts will be let to upgrade individual facilities. In some facilities, recirculation systems to routinely turn over the water in the tank and / or new altitude valves will be installed.

Justification / Impact:

Basic maintenance to preserve and prolong the useful life of needed facilities. Prevent water quality problems due to corrosion and from water stagnating in the tank.

History:

Several steel standpipes and elevated tanks have been removed over the last decade. Those which remain will be evaluated for their hydraulic value and water quality impact in the Comprehensive Water System Strategic Plan. Those which are considered to be valuable hydraulic assets to the water system will be upgraded via this ongoing program.

Origin of the Subprogram:

Maintenance has been deferred for several years pending completion of a hydraulic study to determine which tanks still have hydraulic value.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2018	2420 Water Tank Maintenance	25,000
2019	370 Water Tank Maintenance	50,000
2019	1840 Water Tank Maintenance: Gorham Tank	400,000
2020	2604 Water Tank Maintenance	50,000
2021	2666 Water Tank Maintenance	50,000
2022	1839 Water Tank Maintenance: Gowen Road Tank	50,000
Total Cost, All Years:		625,000

Previous Years on CIP:

Since 2000

Related Projects:

Comprehensive Water System Strategic Plan

Procurement Issues:

RFP preparation and contract administration will be by District Staff. Maintenance and repair services will be competitively bid.

Subprogram # 262 Transmission Phase 1

SLWTF - Emergency Storage/60"

Division: Water - General

Manager: Johnson, Gordon

Funding: Bonds - Water

Priority: Customer driven

Description:

Construct a 7.0 Million Gallon Prestressed Concrete Reservoir near the Sebago Lake Water Treatment Facility.

Justification / Impact:

The purpose is to provide additional storage for partial redundancy of the SLWTF so that it can be shut down for longer periods of time and improve water quality by relying less on in system storage.

History:

This project was conceived as part of the Comprehensive Water System Strategic Plan, as a future need and will be assessed further during a future "Water Purification Master Plan."

Origin of the Subprogram:

This is a CWSSP recommendation to improve water quality and backup storage.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2021	2730 SLWTF- Emergency Storage/60" Transmission - Design	600,000
2022	262 Emergency Storage Tank - 7.0 MG / 60" transmission	6,000,000
Total Cost, All Years:		6,600,000

Previous Years on CIP: 2004

Related Projects:

Procurement Issues: Standard consulting and/or contractor retention procedures.

Subprogram # 307**Gorham/Windham 407 Zone Improvements****Division:** Water - General**Manager:** Johnson, Gordon**Funding:** Bonds - Water**Priority:** Upgrade obsolete facility**Description:**

Phased design and construction of transmission mains, pumps & water tank for the integration of the 407 Zones (Gorham & Windham).

Justification / Impact:

The growth in these communities requires increased capacity. There are also specific service deficiencies and water quality issues that need to be addressed in the 407 Zones.

History:

The projects listed below were anticipated by the 1989 Master Plan. Further analysis and identification was undertaken as part of the CWSSP study.

Origin of the Subprogram:

Projects identified and proposed phasing outlined in Comprehensive Water System Strategic Plan.



2018 – Design of elevated Storage for 407 zone north. This project will replace an old undersized 1950 Tank (left) with new tank (right)

Budget Summary:

Budget year		Project	Budget Year Cost
2018	2658	407 Zone Tank Design and Land Acquisition	400,000
2019	497	New 407 Zone Tank Design/Construction	2,500,000
2020	498	407 Zone N - Piping Improvements	1,000,000
2022	510	407 Zone Reliability Improvements III	1,575,000
2023	463	407 Zone Service Area/ Supply Improvements	2,240,000
2023	465	407 Zone Reliability Improvements II	1,968,000
2023	508	407 Zone Reliability Improvements I	340,000
Total Cost, All Years:			10,023,000

Previous Years on CIP:

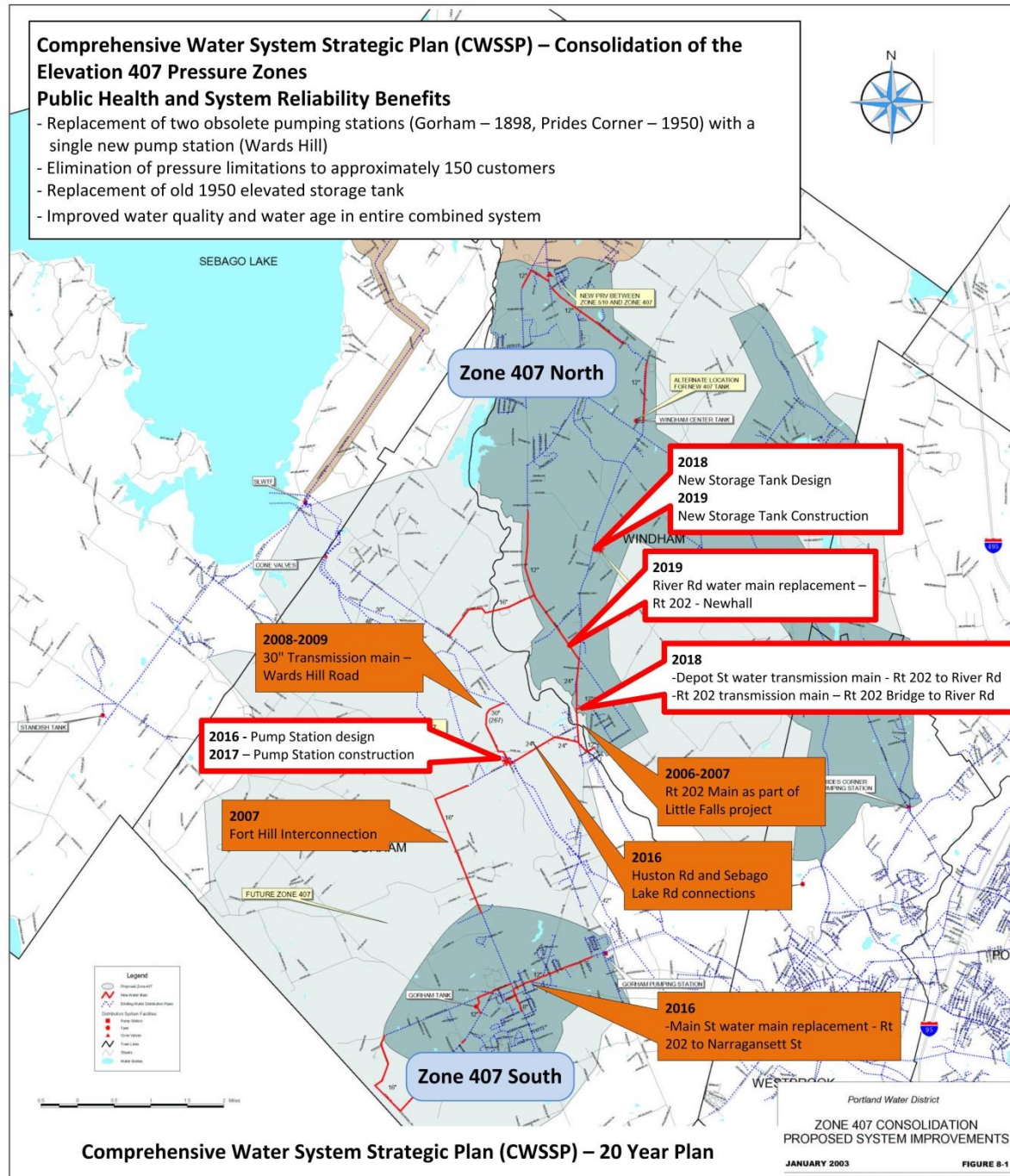
2000

Related Projects:**Procurement Issues:**

Engineering Services will be procured through Design through RFP process. BOT shall approve method and contract for engineering. Engineering bidding and construction services will be approved at the time of construction of Pump Station.

Subprogram # 307

Gorham/Windham 407 Zone Improvements



Subprogram # 326**Vehicle and Equipment Replacement**

Division: Allocation
Funding: R & R - Water

Manager: Welch, Andrew
Priority: Routine replacement

Description:

This project is to replace a portion of the District's Vehicle and Equipment fleet each year. This year's review included the evaluation of all of the vehicles and equipment which have met or exceeded the trade criteria. In reviewing the fleet, the replacement cost is between \$4,500,000 and \$5,000,000.

Justification / Impact:

The rolling stock and construction equipment fleet are essential to the District's "mission to provide our customers with quality water, wastewater and related environmental services." Maintaining a reliable fleet of vehicles and equipment enables staff to fulfill the mission with safety, efficiency and timeliness. Worker safety, efficient operations and customer satisfaction are the basic benefits of maintaining a sound vehicle and equipment inventory.

History:

The Asset Management 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.



2018 – Portable By-Pass Pump to backup boosted systems pump station

Origin of the Subprogram:

Annual review and replacement of vehicles and equipment is a basic operating need of any geographically dispersed utility.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2018	2413 Vehicle and Equipment Replacement	500,000
2019	2503 Vehicle and Equipment Replacement	400,000
2020	2595 Vehicle and Equipment Replacement	400,000
2021	2657 Vehicle and Equipment Replacement	400,000
2022	2716 Vehicle and Equipment Replacement	400,000
Total Cost, All Years:		2,100,000

Previous Years on CIP:

All

Procurement Issues:

Specifications are developed and proposals are solicited from approximately thirty vehicle and equipment dealers. Purchases are made on the basis of price and other criteria which lead to lowest life cycle cost.

2018 Annual Vehicle and Equipment Replacement		Costs
TRL18010 Tow behing compressor	ASSET PURCHASE	\$17,000
TRL05510 Tow behind compressor	TRADE	(\$3,500)
EQS18020 Mini Excavator	ASSET PURCHASE	\$115,000
EQS07610 Backhoe	TRADE	(\$40,000)
VEH18040 Wheeler	ASSET PURCHASE	\$138,000
VEH11010 VEH12010 Small Dump's	TRADE	(\$76,000)
VEH18050 VEH18060 VEH18070 (Truck 2X4)	ASSET PURCHASE	\$83,500
VEH02060 VEH08060 VEH08080 VEH10030 (Truck 2X4)	TRADE	(\$11,000)
VEH18090 VEH18100 Truck 4X4 (1 Extended Cab)	ASSET PURCHASE	\$58,000
VEH11110 Truck 4X4	TRADE	(\$7,000)
VEH18110 VEH18120 Utility Van	ASSET PURCHASE	\$48,500
VEH11130 Utility Van (transit connect)	TRADE	(\$2,500)
VEH18120 Truck 4X4 Utility	ASSET PURCHASE	\$35,000
VEH00020 Truck Utility Crane	TRADE	(\$3,500)
VEH18140 Small SUV	ASSET PURCHASE	\$24,000
VEH08040 Small SUV	TRADE	(\$2,500)
ESQ18150 Portable Bypass Pump	ASSET PURCHASE	\$127,000
	Total CIP Request	\$500,000

Subprogram # 407**Cape Elizabeth Pump Stations - Capital****Division:** Wastewater - Cape Elizabeth**Manager:** Rodriguez, Paul**Funding:** Bonds - Wastewater**Priority:** Upgrade obsolete facility**Description:**

This program provides a planned approach for the replacement of obsolete equipment in Cape Elizabeth wastewater pump stations.

Justification / Impact:

The pump stations have reached the end of their useful design life and obsolete equipment must be replaced. Upgrades, including the addition of VFD's in some cases, will provide more pumping capacity, mitigate CSO activity, and provide some power savings.

History:

This planned approach will assist maintenance and operations in moving toward a goal of performing more predictive/ preventative maintenance instead of emergency maintenance

**Budget Summary:**

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2018	1360	Little John (Family Field) Pump Station Upgrade	900,000
2019	52	Maiden Cove Pump Station Upgrade	200,000
PEND	867	Ottawa Rd. WWPS Upgrade (See subprogram#119)	350,000
Total Cost, All Years:			1,450,000

Previous Years on CIP:

Related Projects: Subprograms 52, 119

Subprogram # 408 Upsizing

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>
2018	2182 Water System Redundancy(Looping) and Upsizing dev	50,000
2019	2510 Water System Redundancy (Looping) and Upsizing dev	50,000
2020	2602 Water System Redundancy (Looping) and Upsizing dev	50,000
2021	2667 Water System Redundancy (Looping) and Upsizing dev	50,000
2022	2729 Water System Redundancy Looping) and Upsizing dev	50,000
Total Cost, All Years:		250,000

Previous Years on CIP: none

Related Projects: 43, 111

Procurement Issues: District labor & equipment or low bid contract installation

Subprogram # 409**East End WWTF - R&R****Division:** Wastewater - Portland**Manager:** Sloan, Steve**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

Various systems and equipment will need to be replaced and/or modified as the equipment becomes obsolete due to age. This series of projects contemplates replacement of these systems and equipment through the planned use of existing R&R funds.

Justification / Impact:

The management of assets requires the continuous replacement and refurbishment of infrastructure as it ages and wears. The current facility is over twenty-five years old and many of the support systems and equipment are showing their age. Many of these replacements are required to provide continued service and to meet regulatory requirements. Other items are intended to maintain the physical infrastructure associated with the treatment facilities.

Origin of the Subprogram:

This project has been created in order to provide for a structured and planned utilization of existing R&R.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2018	1823 Primary Clarifier Sludge Collection Rehabilitation	250,000
2018	2560 EEWWTF - R&R	75,000
2018	2564 Security Improvements	25,000
2018	2699 Disinfection System Hypochlorite Tank Replacement	125,000
2018	2700 Sludge Dewatering Press Rehabilitation Phase 1	100,000
2018	2704 Odor Control System Fan Rehabilitation/Replacement	150,000
2019	1614 HVAC Project - Misc.	350,000
2019	1818 EEWWTF - Plant Water System	250,000
2019	2045 Process Gate Automation	250,000
2019	2561 Boiler Replacement - HVAC improvements	150,000
2019	2702 Fournier Press Rebuild Phase 2	100,000
2020	1830 EEWWTF - Roadway & Parking Lot Paving	150,000
2020	2585 Gravity Thickener Upgrades	150,000
2020	2586 Replace GBT #1 with New Enclosed Unit	250,000
2021	2678 EEWWTF - R&R	300,000
2022	2733 EEWWTF - R&R	300,000
Total Cost, All Years:		2,975,000

Previous Years on CIP: 2004-present**Related Projects:****Procurement Issues:**

Subprogram # 411**Westbrook WW Systems R&R****Division:** Wastewater - Westbrook**Manager:** Poulin, Charlene**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

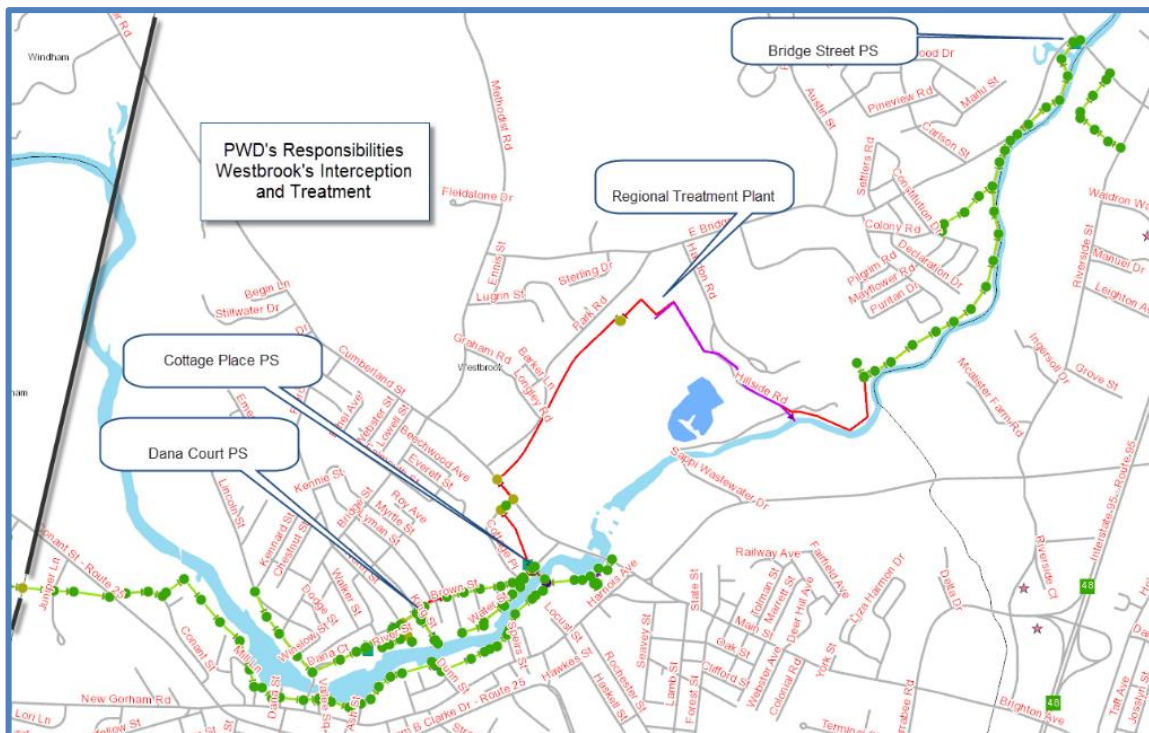
This project provides for the timely renewal of equipment associated with pump stations and the purchase of monitoring equipment for the interceptor system. Major pump stations have been recently upgraded but funds need to be available for replacement parts when necessary.

Justification / Impact:

An on-going study to upgrade the Westbrook CSO Master Plan will be complemented with the addition of a portable flow monitoring device. The Dana Court pump station has yet to be upgraded and funds are required to assure continued operation.

Budget Summary:

Budget year	Project	Budget Year Cost
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
2021	2680 Westbrook WW Systems R&R	10,000
2022	2734 Westbrook WW Systems R&R	20,000
Total Cost, All Years:		60,000



Subprogram # 416**Westbrook/Gorham /Windham WWTF R&R****Division:** Wastewater - Joint Westbrook**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. 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:

Budget year	Project	Budget Year Cost
2018	2426 Westbrook/Gorham /Windham WWTF R&R	50,000
2019	2519 Routine Renewal and Replacement	50,000
2020	2607 Westbrook/Gorham /Windham WWTF R&R	50,000
2021	2681 Westbrook/Gorham /Windham WWTF R&R	50,000
2022	2579 Access Road and Parking Lot Resurfacing	75,000
Total Cost, All Years:		275,000

Previous Years on CIP: 2007 - present
Related Projects:



Wastewater Treatment Facilities

Westbrook /Gorham/Windham Regional Plant

- **Dewatering Upgrade (2016) \$1,000,000**



The plant dewatering system is scheduled to be online early in 2018. The project will significantly reduce biosolids costs.

Subprogram # 418**Cape Elizabeth WWTF - Capital****Division:** Wastewater - Cape Elizabeth**Manager:** Rodriquez, Paul**Funding:** Bonds - Wastewater**Priority:** Upgrade obsolete facility**Description:**

Provide for capital plant upgrades required to continue to meet regulatory and operational requirements.

Justification / Impact:

This program focuses on timely upgrading of the treatment facility which has been on line for 30 years without any substantial modifications. Control system improvements will allow for off-hour monitoring and response as well as assurances that regulatory requirements are consistently met.

History:

The Maine Department of Environmental Protection wrote into the facility's most recent license, a requirement relating to the elimination of bypassing of flows during periods of wet weather. High flow management upgrades were completed in 2012. A condition assesment of the Aeration and Secondary Clarification processes was performed in 2017. Also in 2017 a UV Disinfection Feasibility Study and Alternatives Analysis was completed

**Origin of the Subprogram:**

Established to address regulatory requirements and upgrade needs to maintain system reliability and address components that are reaching the end of their service life.

Budget Summary:

Budget year		Project	Budget Year Cost
2018	2571	Headworks Heating and Ventilation Construction	250,000
2018	2701	Cape UV Disinfection	850,000
2022	1911	Cape Elizabeth Treatment Plant - Ph 2 improvements	175,000
Total Cost, All Years:			1,275,000

Subprogram # 423**Peaks Island R&R****Division:** Wastewater - Peaks**Manager:** Rodriguez, Paul**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

This account will provide for timely routine replacement of equipment at the Peaks Island Treatment Plant and pump station.

Justification / Impact:

Physical assets require scheduled maintenance and eventual replacement. This project provides funding for the efficient and timely replacement of equipment using routine and replacement funds.

History:

This program has been used at most PWD wastewater systems in the past.

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

Budget year	Project	Budget Year Cost
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	2735 Peaks Island R&R	20,000
2021	2576 SBR Equipment Replacement	250,000
2022	2635 Torrington Point PS Upgrades	80,000
Total Cost, All Years:		425,000

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:** Rodriguez, Paul**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 assests 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:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2019	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
2020	2611 Cape Eliz. WWTF - R&R	50,000
2021	2674 Cape Eliz WWTF - R&R	20,000
2022	2389 Replacement of Heating Boiler at the S.Cape WWTF	100,000
Total Cost, All Years:		290,000

Previous Years on CIP: 2006**Related Projects:****Procurement Issues:**

Introduction

The District has the responsibility to manage their financial resources by establishing and following prudent financial policies and procedures. A summary of the significant financial policies is listed below. The district is in compliance with the policies except where noted below. Each policy is designated as being adopted by law, Board or Management.

Significant Financial Policies

Accounting, Auditing, and Financial Reporting:

Basis of Accounting (Charter)

The District maintains its accounting records and reports on its financial conditions and results of operations in accordance with generally accepted accounting principles as promulgated by the Governmental Accounting Standards Board (GAAP). The District uses accrual accounting for financial reporting and budget preparation (see Budgeting and Financial Planning section for difference between GAAP and Budget).

Fund Structure (Charter)

As required by the District's charter, eight-supporting enterprise funds will be maintained – one fund for water service and seven funds for each of the communities we provide wastewater service. Revenues and expenses that are solely for the benefit of that fund are allocated directly to the enterprise fund. Enterprise funds, used for business-like activities, operate on an accrual basis. The accrual basis of accounting used by enterprise funds requires revenue to be recognized when it is earned and expenses to be recognized when the related benefit is received.

By contract, the District provides billing and meter reading services to two other communities. Related costs are recorded in the appropriate fund.

Costs that benefits more than one 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.

2017-18 Policy Highlights

Pension Funding Policy: A key assumption to determine the actuarially determined contribution to the defined benefit is the expected future returns on invested assets. The assumption decreased to 6.5% from 7%. The change increased the 2018 pension contribution by \$232,000.

Water Rates: Every 10 years, a cost of service study is conducted to review our rate structure and compare revenues generated by customer class to the costs to serve those customers. The study was completed 2016 and recommended retaining the existing rate structure with a relatively minor change of reducing the amount of water included in seasonal water customer's minimum charge (less than \$20,000 impact). The study confirmed that larger commercial customers do not generate enough revenue to cover the costs to serve them and recommended continuing the policy of increasing those customers at a higher rate of increase than other customers

Wastewater Renewal and Replacement Fund Target: Due to increasing capital needs to address aging wastewater infrastructure, the target balance was increased to 5% of gross assets – up from 3%.

Significant Financial Policies (continued)

Financial Planning Policies:

Financial Reporting (Management)

Monthly financial reports should be distributed to the Board of Trustees and Management for their review. The report should include a comparison of actual results to budget with variance noted and explained.

Basis of Budgeting (Management)

The budget is consistent with GAAP, including the utilization of accrual accounting, except for the following items:

- Depreciation, being a non-cash expense, is not budgeted,
- Contributions to asset renewal and replacement cash reserve is budgeted,
- Principal Payments are included in the budget,
- Contributed assets are not included in the operating or capital budget,
- Pension Actuarially Determined Contribution is included in the budget opposed to the pension expense, and
- Net proceeds of asset sales are not recorded in the budget.

The Board must authorize any amendment to the operating budget that results in a net increase in the total net operating budget. The general manager and treasurer are authorized to approve transfers between department and funds. All capital projects must be approved by the Board of Trustees. The upcoming year's projects listed in the Capital Expenditure section of this document are approved when the document is adopted. As long as the actual costs are at or below the approved amount and it is awarded to the lowest bidder, the project does not need additional Board approval.

The policy requires the preparation of a multi-year projection of operating and capital expenses. The budget must be completed so the wastewater communities can be assessed the annual estimated costs by January 15th. The budget year is January 1 to December 31.

Balanced Budget (Charter)

A balanced operating budget is a budget that has total expenditures equal to total revenues, including use of fund balance. A balanced capital budget is a budget that has total expenditures that do not exceed available renewal/replacement fund amounts and external financing (bonds, grants or contributions).

Significant Financial Policies (continued)

Financial Planning Policies (continued):

Long -Range Planning (Management)

Capital Improvement Plan

A five-year capital improvement plan will be updated annually. The Board may authorize capital expenditures in the upcoming year as long the staff awards the project to lowest bidder and the total project budget is within the amount in the capital improvement plan.

Operating Budget

Operating projections of at least three future years are created. For the water fund, the projection is used to decide the appropriate water rate adjustment to consider. For most communities, wastewater services are a joint effort of the District providing treatment and interception service and the community providing collection and storm drain services. The District's projected assessment of our cost and their internal costs are considered when determining the appropriate sewer rate. All funds incorporate the recommendations of the capital improvement plans and operational evaluations/studies when projecting operating costs.

Asset Inventory (Management)

The District utilizes an asset management system that identifies the District assets. All employees must record their time to work orders and the applicable asset they are working on. Assets classifications are being reviewed for accuracy and completeness with review focusing on the most important assets. Condition rating of assets has been done on some assets and efforts will continue on critical assets. Asset evaluation studies are completed periodically on critical assets.

Revenue Policies:

Water Rates (General - Board)

Water rates are established to provide sufficient revenues to fully support the operation of the water fund's activities. In 1994, 2006, and 2016 cost of service studies calculated for each customer class (e.g. – residential, commercial, etc.) the amount of revenues generated and costs incurred. The study indicated that some classes were subsidizing other classes. Recognizing the impact of changing rates to reflect the cost of service for each customer class would cause significant rate shock for some customers, the approach of gradually adjusting rates over the future rate adjustments was adopted. Cost of service studies should be done periodically, approximately every 10 years, or if significant financial or operational change occurs that may have shifted the costs to serve the different customer classes. Generally, the Board has approved a small annual rate adjustment near the increase in the consumer price index.

In 2013, a new state law allowed for funding through an infrastructure capital reserve. The law allows the District to include an additional 10% in rates to fund a capital reserve. The 2018 budget assumes 1% of the proposed 3.8% water rate adjustment be dedicated to the capital reserve. The 1% will fund the debt service on \$2 million, 10-year bond for replacing aging water mains. Past practice is to issue 20-year bond to finance main renewal. An additional 1% will be added for the each of the ten years beginning in 2014.

Significant Financial Policies (continued)

Revenue Policies (continued):

Wastewater Assessment (Charter)

Wastewater assessments are established to provide sufficient revenues to support the operation for each of wastewater funds' activities. By state law, the municipality must pay the district's assessment.

Service Fees (Board)

Fees for miscellaneous service should be based on the cost to provide the service. Effective January 1, 2016, the District's Board can unilaterally authorize changes for water related fees. The District must file 'terms and conditions' (T&C) with the Maine Public Utilities Commission for information only. The T&C includes the fees for any service the District requires customers to obtain from the District. The District intends to file updated T&C at least every two years to assure the fees assessed covers the costs of providing the service. Updated T&C were approved with an effective date of May 1, 2017.

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. All funds are expected to meet the target in the coming year.

Each fund has a cash reserve fund for the renewal and replacement of fixed assets. The target balance for the water and wastewater funds are 1% and 5%, respectively, of gross fixed asset costs. The wastewater target was increased from 3% to 5% in 2017. The Water fund meets its goal. Gorham, Westbrook and Windham meet the revised wastewater target. Cape Elizabeth, Cumberland and Portland does not meet the increased target. Also, the Water fund has a target balance of 15% of the annual net operating budget for a watershed land reserve. We project the reserve to be at 10.8% at the end of 2018.

The 2016 – 2022 trend of operating and renewal & replacements fund balances for each of the Water & Wastewater funds are located in the Budget by Fund section.

Capital Expenditures (Board)

A capital expenditure is a project with a cost of \$10,000 or more and has a useful life greater than 5 years. An exception is made for certain assets annually purchased in bulk that exceed the \$10,000 amount in a year. For example, individual hydrants, meters and service lines costs less than \$10,000 but total annual purchases exceed \$10,000.

All capital expenditures must be approved by the Board of Trustees. An annual capital improvement plan is reviewed and approved by the Board and provides authorization for capital expenditures as long as the project costs is not exceeded and the lowest bid is accepted. If project cost is anticipated to exceed budget or the lowest bid is not accepted, the Board must specifically authorize. Emergency capital expenditures must be approved by the General Manager who must inform the Board of the expenditure.

Purchasing (Board)

The policy outlines the requirements for obtaining competitive pricing and the formal bidding processes. It also establishes authorization levels for operating expenses including the requirement that expenses greater than \$50,000 be approved by the Board. Amounts less than \$50,000 must be included in the Board approved budget. We are in compliance with the policy.

Significant Financial Policies (continued)

Expenditure Policies (continued):

Pension Funding Policy (Board)

The Board voted to fully fund the District's defined benefit plan by contributing at least the annual required contribution as calculated by the actuary. Because of new accounting rules that went into effect in 2015, the Board adopted a new pension funding policy effective for 2015. The policy states the District's intention to adequately fund the pension plan and contribute at least the actuarially determined contribution consistent with assumption used to calculate the pension expense under the new accounting rule, except to spread out the funding for impact of changes of the benefits negotiated as part of the three-year union contract over the life of the union contract. The policy states the District will fund \$1 million a year, assuming the \$1 million is greater than the actuarially determined contribution (ADC). The 2018 Budget assumes the ADC of \$1.4 million will be paid in 2018.

Risk Management Policies

Maine Tort Claims Act (State Law)

As a public entity, the District's liability for third party tort claims is limited by the provisions of the Maine Tort Claims Act. The Act provides that the District is immune from claims, unless the Act provides a specific exception from immunity. In the District's case, the exception most likely to affect the District is one making the District liable for negligent use of machinery and equipment. Should the District be liable for a claim under the provisions of the Act, its liability is capped by the Act at \$400,000. The immunity provided public entities by the Tort Claims Act helps to keep the cost of the District's insurance lower, allowing the District to pass this savings to its rate payers.

Property and Liability Insurance (Board)

Property and liability insurance is purchased to cover building and personal property losses including losses due to flood and earthquakes. Certain liability claims are limited under the Maine Tort Claim Act to \$400,000. Board adopted change to limit insurance on claims covered by the Tort Claim Act to the Act limit.

Safety Program (Management)

A full-time safety officer and executive safety team oversee various safety policies including confined space entry, electrical safety, ergonomic for video display terminals, fall protection, hazard communication and safety commitment policies. A safety incentive policy outlines an employee award program recognizing good safety performance.

Employee Management (Management)

A three-person Employee Services department oversees the district's employee relations management and practices. Over 60 policies have been created to guide management and employees with one goal of reducing the District's risk to losses.

In-House Legal Counsel (Board)

In 2006, the Board authorized hiring in-house legal counsel. Legal counsel participate actively participates in overseeing the district's operation, including reviewing all contracts, and proactively identifying ways to reduce or avoid legal issues.

Cost Allocation Policy Detail

The District has one water fund and six wastewater funds (Cape Elizabeth, Cumberland, Gorham, Portland, Westbrook and Windham). In addition, the District also provides billing and/or meter reading services to three other municipalities (Falmouth, Scarborough and South Portland).

It is the District's policy to directly assign expenses to a fund/municipality whenever possible. However, there are some expenses, such as paid time off or work done by administrative personnel, where such an assignment is not possible. In such cases, an allocation of that cost must be done.

In 1995, the District engaged an outside consultant to review and update its cost allocation process. Since that time, organizational and other changes have necessitated updates and modifications. The changes that were made used the guidelines from the 1995 study. The current allocations were reviewed and approved by the District's current auditors during 2013.

Currently the District uses the following methods to allocate costs:

- Customers Served
- Direct Labor
- General Allocation Percentage
- Gross Asset Value
- Meter Equivalent Units
- Relative Benefits
- Square Footage Utilized

A description of each method, the percentages used in this Budget and the dollars allocated, are in the following pages.

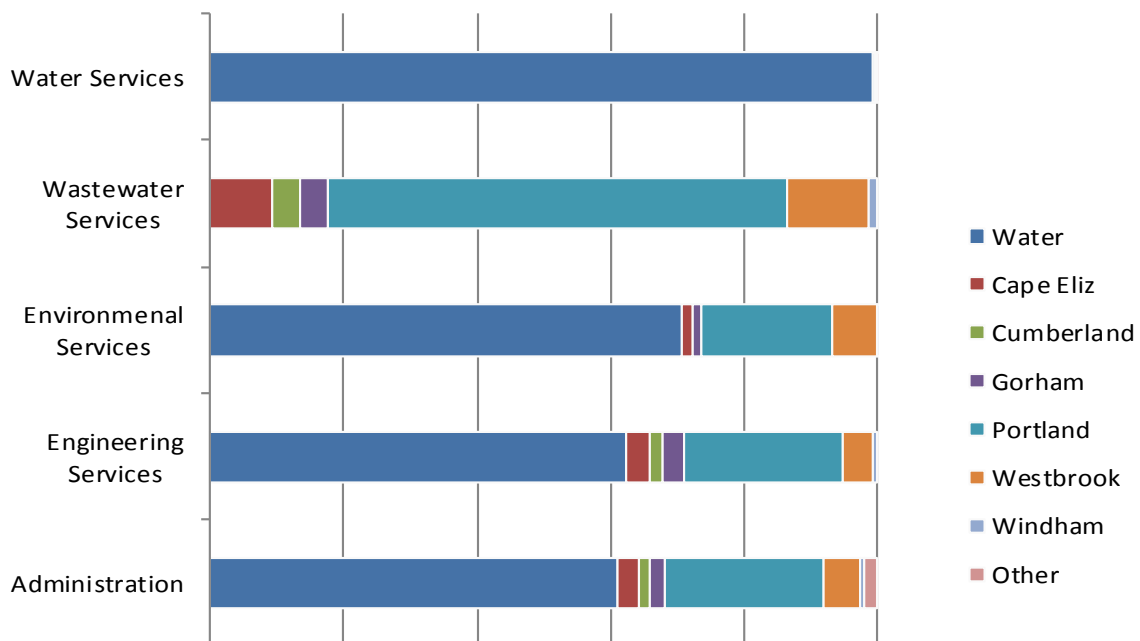
Each financial transaction is assigned a cost center number when the transaction is recorded in the financial system. The fund number indicates whether it is a 'direct' charge to the fund or an 'indirect' charge that will be allocated. Each department's costs are broken down into the fund category in Departmental Expense section. All costs ultimately are assigned to the one of the seven enterprise funds or three contact billing municipalities.

Fund	Description	Fund	Description
10	Allocated to All Direct Funds	56	Gorham Wastewater (Little Falls)
20	Water – members	57	Portland Wastewater
30	Water – nonmembers	59	South Portland Contacted Billing
50	Allocated to All Wastewater Funds	61	Gorham Wastewater (Village)
51	Cape Elizabeth Wastewater	62	Westbrook Wastewater
53	Cumberland Wastewater	64	Allocated to Gorham/Westbrook/Windham
54	Falmouth Contracted Billing	65	Allocated to Gorham/Windham WW
55	Windham Wastewater	66	Portland Wastewater (Peaks Island)

Relation of Functional Units (Departments) to Funds

As expenses are incurred, each department charges a cost center, which indicates to what fund the expenditure belongs. The totals below show how the costs for each department are spread across the organization. Not surprisingly, 99.1% of the costs of the Water Services department are assigned to the Water Fund and 99.9% of the Wastewater Services department costs go to the Wastewater funds. The expenditures of the remaining departments assign between 61.0% and 70.6% of costs to the Water Fund with the remaining going to the Wastewater funds.

Department	Dept Exp	Water	Cape Eliz	Cumber	Gorham	Portland	Westbr	Windham	Other
Water Srvs	\$8,464,029	99.1%	0.1%	0.0%	0.0%	0.5%	0.1%	0.0%	0.2%
Wastewater Srvs	9,382,172	0.1%	9.2%	4.2%	4.1%	68.7%	12.4%	1.3%	0.0%
Environmenal Srvs	2,063,638	70.6%	1.7%	0.0%	1.3%	19.4%	6.8%	0.2%	0.0%
Engineering Srvs	4,198,336	62.2%	3.8%	1.7%	3.2%	23.8%	4.7%	0.6%	0.0%
Administration	5,637,880	61.0%	3.1%	1.7%	2.3%	23.7%	5.4%	0.6%	2.2%
<u>Non-Departmental</u>	<u>265,865</u>	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Department Exp	30,011,920								
(less) Trans Exp	(793,454)								
Fund Expense	29,218,466								



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)

2018 Allocation %:					2017 Allocation %:				
	General F1	Billing F1	Meter Read F1	Paymts H1		General F1	Billing F1	Meter Read F1	Paymts H1
Water	67.41%	65.96%	67.39%	65.96%	Water	67.32%	67.54%	68.90%	65.87%
Cape Eliz	2.15%	2.15%	2.15%	2.15%	Cape Eliz	2.16%	2.05%	2.05%	2.16%
Cumberland	1.06%	1.06%	1.06%	1.06%	Cumberland	1.06%	1.01%	1.01%	1.06%
Falmouth	0.36%	1.81%	0.00%	1.81%	Falmouth	0.36%	1.72%	0.00%	1.81%
Gorham	1.66%	1.66%	1.66%	1.66%	Gorham	1.65%	1.57%	1.57%	1.65%
Portland	15.77%	15.77%	15.77%	15.77%	Portland	15.89%	15.11%	15.11%	15.89%
Scarborough	0.00%	0.00%	0.38%	0.00%	Scarborough	0.00%	0.00%	0.36%	0.00%
So Portland	7.26%	7.26%	7.26%	7.26%	So Portland	7.31%	6.95%	6.95%	7.31%
Westbrook	4.28%	4.28%	4.28%	4.28%	Westbrook	4.20%	4.00%	4.00%	4.20%
Windhan	0.05%	0.05%	0.05%	0.05%	Windhan	0.05%	0.05%	0.05%	0.05%
	100.00%	100.00%	100.00%	100.00%		100.00%	100.00%	100.00%	100.00%
Dollars Allocated:					Dollars Allocated:				
	General F1	Billing F1	Meter Read F1	Paymts H1		General F1	Billing F1	Meter Read F1	Paymts H1
Water	\$658,784	\$198,788	\$51,944	\$116,198	Water	\$600,422	\$194,846	\$59,138	\$113,790
Cape Eliz	\$21,012	\$6,480	\$1,657	\$3,788	Cape Eliz	\$19,265	\$5,914	\$1,760	\$3,731
Cumberland	\$10,359	\$3,195	\$817	\$1,867	Cumberland	\$9,454	\$2,914	\$867	\$1,831
Falmouth	\$3,518	\$5,455	\$0	\$3,189	Falmouth	\$3,211	\$4,962	\$0	\$3,127
Gorham	\$16,223	\$5,003	\$1,280	\$2,924	Gorham	\$14,716	\$4,529	\$1,348	\$2,850
Portland	\$154,117	\$47,527	\$12,155	\$27,781	Portland	\$141,722	\$43,591	\$12,969	\$27,450
Scarborough	\$0	\$0	\$293	\$0	Scarborough	\$0	\$0	\$309	\$0
So Portland	\$70,951	\$21,880	\$5,596	\$12,790	So Portland	\$65,197	\$20,050	\$5,965	\$12,628
Westbrook	\$41,828	\$12,899	\$3,299	\$7,540	Westbrook	\$37,459	\$11,540	\$3,433	\$7,256
Windhan	488	149	38	87	Windhan	446	144	42	87
	\$977,280	\$301,376	\$77,079	\$176,164		\$891,892	\$288,490	\$85,831	\$172,750

Direct Labor

This method calculates the ratio of labor dollars directly charged by the area to specific funds.

Sub-Groups Using Method:

B1 – Wastewater Administration

L6 – Laboratory

B3 – East End (Portland) Wastewater Treatment

L9 – Water/Wastewater Systems

C1 – Facilities Services

E7 – Instrumentation (general wastewater)

2018 Allocation %:	B1	B3	C1	E7	L6	L9
Water	0.00%	0.00%	79.89%	0.00%	31.38%	0.00%
Cape Elizabeth	10.52%	6.10%	3.32%	10.52%	3.75%	10.52%
Cumberland	3.72%	0.00%	0.65%	3.72%	0.00%	3.72%
Gorham	5.18%	2.66%	1.03%	5.18%	2.84%	5.18%
Portland	65.79%	76.80%	13.15%	65.79%	46.00%	65.79%
Westbrook	13.09%	13.89%	1.62%	13.09%	15.62%	13.09%
Windham	1.70%	0.55%	0.34%	1.70%	0.41%	1.70%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	B1	B3	C1	E7	L6	L9
Water	\$0	\$0	\$152,842	\$0	\$73,388	\$0
Cape Elizabeth	31,590	25,746	6,352	7,387	8,770	52,908
Cumberland	11,171	0	1,244	2,612	0	18,709
Gorham	15,555	11,227	1,971	3,637	6,642	26,052
Portland	197,560	324,151	25,158	46,195	107,580	330,874
Westbrook	39,308	58,626	3,099	9,191	36,530	65,833
Windham	5,105	2,321	650	1,194	960	8,549
	\$300,289	\$422,071	\$191,316	\$70,216	\$233,870	\$502,925
2017 Allocation %:	B1	B3	C1	E7	L6	L9
Water	0.00%	0.00%	78.56%	0.00%	35.65%	0.00%
Cape Elizabeth	10.21%	5.64%	2.93%	10.21%	5.53%	10.21%
Cumberland	3.70%	0.00%	0.58%	3.70%	0.00%	3.70%
Gorham	5.29%	2.83%	1.07%	5.29%	3.27%	5.29%
Portland	65.52%	76.90%	15.04%	65.52%	37.78%	65.52%
Westbrook	13.42%	14.07%	1.78%	13.42%	17.28%	13.42%
Windham	1.86%	0.56%	0.04%	1.86%	0.49%	1.86%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	B1	B3	C1	E7	L6	L9
Water	\$0	\$0	\$134,107	\$0	\$80,417	\$0
Cape Elizabeth	19,145	24,615	5,002	11,271	12,474	52,342
Cumberland	6,938	0	990	4,084	0	18,968
Gorham	9,919	12,351	1,827	5,840	7,376	27,120
Portland	122,859	335,625	25,674	72,327	85,222	335,894
Westbrook	25,164	61,408	3,039	14,814	38,979	68,799
Windham	3,489	2,445	68	2,053	1,106	9,536
	\$187,514	\$436,444	\$170,707	\$110,389	\$225,574	\$512,659

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

2018 Allocation %:	E7	G1	H1	I1	J1
Water	55.75%	55.75%	55.75%	55.75%	55.75%
Cape Elizabeth	3.66%	3.66%	3.66%	3.66%	3.66%
Cumberland	2.06%	2.06%	2.06%	2.06%	2.06%
Gorham	2.67%	2.67%	2.67%	2.67%	2.67%
Portland	28.70%	28.70%	28.70%	28.70%	28.70%
Westbrook	6.29%	6.29%	6.29%	6.29%	6.29%
Windham	0.87%	0.87%	0.87%	0.87%	0.87%
	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	E7	G1	H1	I1	J1
Water	\$79,154	\$579,059	\$395,623	\$289,041	\$998,945
Cape Elizabeth	5,197	38,015	25,973	18,976	65,581
Cumberland	2,925	21,397	14,619	10,680	36,912
Gorham	3,791	27,733	18,947	13,843	47,842
Portland	40,749	298,099	203,666	148,798	514,255
Westbrook	8,931	65,332	44,636	32,611	112,706
Windham	1,234	9,036	6,173	4,510	15,589
	\$141,981	\$1,038,671	\$709,637	\$518,459	\$1,791,830
2017 Allocation %:	E7	G1	H1	I1	J1
Water	55.55%	55.55%	55.55%	55.55%	55.55%
Cape Elizabeth	3.57%	3.57%	3.57%	3.57%	3.57%
Cumberland	1.96%	1.96%	1.96%	1.96%	1.96%
Gorham	2.82%	2.82%	2.82%	2.82%	2.82%
Portland	28.70%	28.70%	28.70%	28.70%	28.70%
Westbrook	6.48%	6.48%	6.48%	6.48%	6.48%
Windham	0.92%	0.92%	0.92%	0.92%	0.92%
	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	E7	G1	H1	I1	J1
Water	\$103,150	\$578,163	\$395,492	\$264,041	\$984,751
Cape Elizabeth	6,629	37,156	25,417	16,969	63,286
Cumberland	3,640	20,400	13,954	9,316	34,745
Gorham	5,236	29,351	20,077	13,404	49,991
Portland	53,293	298,709	204,332	136,417	508,773
Westbrook	12,033	67,444	46,135	30,801	114,873
Windham	1,708	9,575	6,550	4,373	16,310
	\$185,689	\$1,040,798	\$711,957	\$475,321	\$1,772,729

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

2018 Allocation %:

	All	WW
Water	63.11%	0.00%
Cape Elizabeth	3.40%	9.22%
Cumberland	1.63%	4.41%
Falmouth	0.00%	0.00%
Gorham	3.69%	10.00%
Portland	23.04%	62.45%
Westbrook	4.50%	12.21%
Windham	0.63%	1.71%
	100.00%	100.00%

2017 Allocation %:

	All	WW
Water	63.66%	0.00%
Cape Elizabeth	3.47%	9.55%
Cumberland	1.69%	4.64%
Falmouth	0.00%	0.00%
Gorham	3.83%	10.55%
Portland	22.05%	60.66%
Westbrook	4.65%	12.80%
Windham	0.65%	1.80%
	100.00%	100.00%

Dollars Allocated:

	All	WW
Water	\$579,898	\$0
Cape Elizabeth	31,242	25,207
Cumberland	14,978	12,057
Falmouth	0	0
Gorham	33,906	27,340
Portland	211,707	170,736
Westbrook	41,349	33,382
Windham	5,789	4,674
	\$918,869	\$273,396

Dollars Allocated:

	All	WW
Water	\$528,689	\$0
Cape Elizabeth	28,818	23,476
Cumberland	14,035	11,406
Falmouth	0	0
Gorham	31,808	25,935
Portland	183,123	149,119
Westbrook	38,618	31,466
Windham	5,398	4,425
	\$830,489	\$245,827

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)

2018 Allocation %:

	A6
Water	65.39%
Cape Elizabeth	1.77%
Cumberland	0.95%
Gorham	1.53%
Portland	17.30%
Scarborough	1.11%
South Portland	7.65%
Westbrook	4.22%
Windham	0.08%
	100.00%

2017 Allocation %:

	A6
Water	65.49%
Cape Elizabeth	1.77%
Cumberland	0.91%
Gorham	1.54%
Portland	17.33%
Scarborough	1.08%
South Portland	7.65%
Westbrook	4.15%
Windham	0.08%
	100.00%

Dollars Allocated:

	A6
Water	\$102,553
Cape Elizabeth	2,776
Cumberland	1,490
Gorham	2,400
Portland	27,132
Scarborough	1,741
South Portland	11,998
Westbrook	6,618
Windham	125
	\$156,833

Dollars Allocated:

	A6
Water	\$123,006
Cape Elizabeth	3,324
Cumberland	1,709
Gorham	2,892
Portland	32,550
Scarborough	2,028
South Portland	14,369
Westbrook	7,795
Windham	151
	\$187,824

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)

2018 Allocation %:

	F1	L6
Water	95.00%	0.00%
Cape Elizabeth	1.64%	7.94%
Cumberland	0.93%	0.00%
Gorham	0.99%	4.70%
Portland	1.00%	62.50%
Westbrook	0.17%	23.90%
Windham	0.27%	0.96%
	100.00%	100.00%

Dollars Allocated:

	F1	L6
Water	\$191,017	\$0
Cape Elizabeth	3,298	21,417
Cumberland	1,870	0
Gorham	1,991	12,677
Portland	2,011	168,583
Westbrook	342	64,466
Windham	541	2,589
	\$201,070	\$269,732

2017 Allocation %:

	F1	L6
Water	95.00%	0.00%
Cape Elizabeth	1.67%	10.20%
Cumberland	0.94%	0.00%
Gorham	0.97%	4.60%
Portland	1.01%	61.67%
Westbrook	0.17%	22.60%
Windham	0.24%	0.93%
	100.00%	100.00%

Dollars Allocated:

	F1	L6
Water	\$189,190	\$0
Cape Elizabeth	3,326	28,101
Cumberland	1,872	0
Gorham	1,932	12,673
Portland	2,011	169,900
Westbrook	339	62,263
Windham	477	2,562
	\$199,147	\$275,499

Square Footage Utilized

The costs of the Douglass Street administrative facility are charged to each area based on the square footage they occupy. Office space is charged out at a higher rate (five times higher) than warehouse space. Dollars are allocated to the sub-groups.

2018 Allocation %:

Water Operations	
A1 - Water Administration	2.67%
A2 - Transmission/Distribution	5.25%
A6 - Utility Services	1.41%
	9.33%
Environmental Services	
A5 - Water Resources	0.83%
	0.83%
Wastewater Operations	
B1 - WW Administration	0.83%
L9 - Water/WW Systems	3.73%
	4.56%
Engineering Services	
C1 - Facility Services	23.71%
E2 - Planning & Design	15.10%
E7 - Instrumentation	1.37%
	40.18%
Administration	
F1 - Customer Service	11.72%
G1 - Information Services	5.71%
H1 - Financial Services	8.61%
I1 - Employee Services	3.96%
J1 - BOT & Senior Management	15.10%
	45.10%
	100.00%

Dollars Allocated:

	\$
Water Operations	\$69,943
Environmental Services	6,222
Wastewater Operations	34,185
Engineering Services	301,214
Administration	338,098
	\$749,662

2017 Allocation %:

Water Operations	
A1 - Water Administration	2.65%
A2 - Transmission/Distribution	5.29%
A6 - Utility Services	1.40%
	9.34%
Environmental Services	
A5 - Water Resources	0.83%
	0.83%
Wastewater Operations	
B1 - WW Administration	0.83%
L9 - Water/WW Systems	4.56%
	5.39%
Engineering Services	
C1 - Facility Services	23.34%
E2 - Planning & Design	14.98%
E7 - Instrumentation	1.36%
	39.68%
Administration	
F1 - Customer Service	12.71%
G1 - Information Services	5.67%
H1 - Financial Services	8.55%
I1 - Employee Services	3.92%
J1 - BOT & Senior Management	13.91%
	44.76%
	100.00%

Dollars Allocated:

	\$
Water Operations	\$75,469
Environmental Services	6,707
Wastewater Operations	43,552
Engineering Services	320,620
Administration	361,668
	\$808,015

Vehicle Rates

Internal Transportation costs are charges the departments receive for the availability of District owned vehicles. Each type of vehicle and piece of equipment has an assigned hourly rate. Most vehicles are charged for 40 hours per week. Charges are either assigned directly to the task or to a “stand-by” account or later allocated. Transportation costs represent the expense of operating the garage and include labor, materials, occupancy and depreciation. Overall budget is 1.7% less than 2017.

2018 Budget Details

Vehicle Type	Rate	Active Hours	Stand-by Hours	Total Hours
Backhoe/Loader <19,501 GVW	\$37.92	2,720		2,720
Backhoe/Loader >=19,500 GVW	\$43.66	255		255
Car	\$3.60	56	2,024	2,080
Compressor	\$22.97	3,521		3,521
Dump Truck 15,001-40,000 GVW	\$12.45	1,900	6,420	8,320
Dump Truck >= 40,000 GVW	\$16.61	3,585	2,655	6,240
Generator/Load Bank	\$39.07	392		392
Misc. Const. Equipment - Forklift, etc.	\$26.43	120		120
Misc. Trailed Equipment - Cement Mixer, Jet Machine, I	\$17.24	830		830
Pick-up Truck/SUV - Heavy - 7,501-10,000 GVW	\$4.70	6,332	8,228	14,560
Pick-up Truck/SUV - Light - < 6,000 GVW	\$3.60	1,455	3,055	4,510
Pick-up Truck/SUV - Medium - 6,001-7,500 GVW	\$3.87	15,630	21,910	37,540
Special Purpose - C - Crane, Sludge, etc.	\$51.69	75		75
Special Purpose - D - Jetvac, etc.	\$68.93	1,168		1,168
Utility Truck 10,001 - 14,000 GVW	\$5.54	4,018	2,222	6,240
Utility Truck 14,001 - 16,000 GVW	\$6.08	4,851	3,469	8,320
Utility Truck 16,001 - 19,500 GVW	\$6.64	5,107	5,293	10,400
Utility Truck 6,001 - 10,000 GVW	\$3.87	8,140	6,420	14,560
Van < 6,000 GVW	\$3.60	3,267	2,923	6,190
Van 6,001-7,500 GVW	\$3.87	1,355	745	2,100
Van 7,501-10,000 GVW	\$4.70	25,447	11,993	37,440
Total Hours		90,224	77,357	167,581

Sub-Group	2017 Budget	2018 Budget	\$ - Difference	% - Difference
A1 - Water Administration	\$0	\$388	\$388	n/a
A2 - Transmission/Distribution	564,707	567,953	3,246	0.6%
A3 - Water Treatment	36,630	35,497	(1,133)	-3.1%
A5 - Water Resources	37,936	38,375	439	1.2%
A6 - Utility Services	159,102	154,260	(4,842)	-3.0%
B1 - WW Administration	0	0	0	n/a
B3 - Portland (East End) WWTF	63,511	61,553	(1,958)	-3.1%
C1 - Facility Services	38,829	54,372	15,543	40.0%
E2 - Planning & Design	22,961	27,620	4,659	20.3%
E7 - Instrumentation	24,338	23,586	(752)	-3.1%
F1 - Customer Service	16,617	16,180	(437)	-2.6%
I1 - Employee Services	0	0	0	n/a
J1 - BOT & Senior Management	0	0	0	n/a
L6 - Water/WW Laboratory	1,846	1,260	(586)	-31.7%
L9 - Water/WW Systems	227,929	193,201	(34,728)	-15.2%
	\$1,194,406	\$1,174,245	(\$20,161)	-1.7%

Joint Use Facilities – Operations and Maintenance Allocations

The District has two areas where wastewater flows from more than one community are combined. Costs associated with these combinations are allocated by the percentage of the flow contributed by each community. The areas of combined flow are:

Portland Water District Facilities:

Westbrook Regional – All of the wastewater from Gorham, Westbrook and Windham is treated at Westbrook Regional Wastewater Treatment Facility, with one pump station handling the combined waste from all three communities. The budget for 2018 is \$1,048,404 (down \$98,837 or 8.6%). This reduction is mostly due to lower costs for biosolids disposal after the recent dewatering project.

Little Falls – The Little Falls areas of Gorham and Windham used to be a self-contained system with its own small treatment facility. Starting in 2008, wastewater from this area was conveyed to the Westbrook Regional Wastewater Treatment Facility. Currently, wastewater from Windham moves into Gorham where it is combined with that community's flow until it joins with the Westbrook flow at the Westbrook town line. This area's budget is \$59,022, down 4.3% (\$2,636) mostly due to a reduction of one day of CCTV work to be done in 2018.

----- Westbrook Regional -----				----- Little Falls -----	
	Gorham	Westbrook	Windham	Gorham	Windham
2013	13.00%	84.70%	2.30%	15.00%	85.00%
2014	14.00%	83.70%	2.30%	15.00%	85.00%
2015	13.00%	84.70%	2.30%	20.00%	80.00%
2016	15.00%	82.00%	3.00%	22.50%	77.50%
2017	16.50%	80.25%	3.25%	21.50%	78.50%
2018	15.75%	81.00%	3.25%	27.50%	72.50%

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 \$170,213 in 2018 (an decrease of 1.4%).

Falmouth – All of the wastewater from Cumberland is treated at the Falmouth Treatment Facility through a contractual agreement. This cost is budgeted to be \$550,353 in 2018 (20.9% increase). The increase primarily due to debt service costs related to work at the Mill Creek pump station and the related force main.

	Cape Eliz	So Portland	Cumberland	Falmouth	Millcreek PS
2013	6.7%	93.3%	27.0%	73.0%	0.0%
2014	6.7%	93.3%	24.0%	76.0%	40.8%
2015	6.7%	93.3%	24.0%	76.0%	40.8%
2016	6.7%	93.3%	24.0%	76.0%	40.8%
2017	6.7%	93.3%	24.0%	76.0%	40.8%
2018	6.7%	93.3%	24.0%	76.0%	40.8%

Note: Starting in 2013 Millcreek Pump Station (PS) costs were be allocated to Cumberland at the specific rate above whereas in prior years it was allocated based on the Cumberland flow ratio.

Joint Use Facilities – Capital Cost Sharing Allocations

The District has two areas where wastewater flows from more than one community are combined. Costs associated with these combinations are allocated by the percentage of the design flow contributed by each community. The areas of combined flow are:

Portland Water District Facilities:

Westbrook Regional – All of the wastewater from Gorham, Westbrook and Windham is treated at Westbrook Regional Wastewater Treatment Facility. In addition, one pump station handles the combined waste from all three communities.

System	--- Millions of Gallons/Day (MGD) ---				----- Flow Percentage -----		
	Westbrook	Gorham	Windham	Total	Westbrook	Gorham	Windham
Southside Interceptor above Manhole 60	0.16	1.06	0.12	1.34	12.0%	79.1%	9.0%
Manhole 60 up to and including Siphon	5.00	1.06	0.12	6.18	81.0%	17.2%	1.9%
Cottage Place Pumping Station & Force Main	2.12	0.70	0.06	2.88	73.7%	24.3%	2.1%
Westbrook Regional WWTF & Outfall	3.02	1.40	0.12	4.54	66.6%	30.8%	2.6%

Little Falls – The Little Falls areas of Gorham and Windham used to be a self-contained system with its own small treatment facility. Starting in 2008, wastewater from this area was conveyed to the Westbrook Regional Wastewater Treatment Facility. As it is presently constituted, wastewater from Windham moves into Gorham where it is combined with that community's flow until it joins with the Westbrook flow at the Westbrook town line.

Facility Name	----- Gallons/Day -----			-- Flow Percent --	
	Gorham	Windam	Total	Gorham	Windam
Gray Rd/Mallison St Gravity Sewer	63,500	53,500	117,000	54.3%	45.7%
Mallison St Pump Station (PS)/Flow Meter (FM)	84,000	100,000	184,000	45.6%	54.4%
Mosher Rd Gravity Sewer	145,000	100,000	245,000	59.2%	40.8%
Little River PS/FM	222,500	100,000	322,500	69.0%	31.0%
Mosher Rd & Cross Country Gravity Sewer	638,000	100,000	738,000	86.4%	13.6%
Industrial Park Gravity Sewer Upgrade	2,105,000	100,000	2,205,000	95.5%	4.5%
Woodlaw n Ave PS (Tow Path Rd) effective 2008	-	-	-	100.0%	0.0%
Fire Station (Route 202) PS	-	-	-	0.0%	100.0%
Androscoggin St PS	-	-	-	0.0%	100.0%

Contracted Services Facilities:

South Portland – All of the wastewater from the Northern portion of Cape Elizabeth is treated at the South Portland Treatment Facility through a contractual agreement.

--- 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.

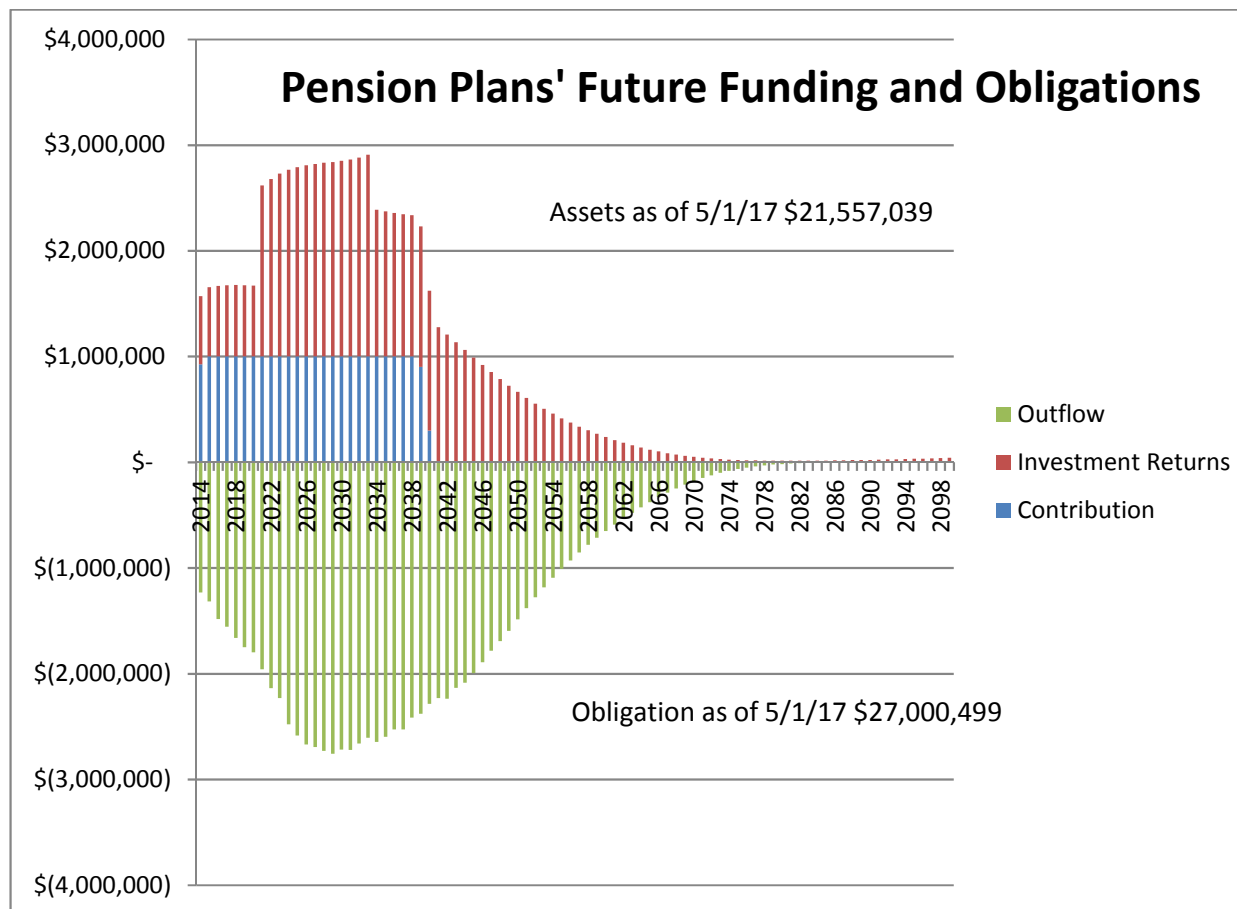
Falmouth – All of the wastewater from Cumberland is treated at the Falmouth Treatment Facility through a contractual agreement.

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 went into effect in 2015. The proposed budget recommends contributing the full Actuarial Determined Contribution of \$ 1,414,448



Introduction

The appendix contains the following:

- Portland Economic Scorecard – Selected Detail charts
- Water Benchmark Data
- Portland Water District Rate Sheet Summary
- Customer Satisfaction Survey
- Board of Trustees' Orders and Resolutions
- Glossary

Portland Economic Scorecard

The Portland Community Chamber issued 'Portland's Economic Scorecard 2015' to help understand how Portland is performing economically. A summary table is in the Introduction. Some of the details are listed below.

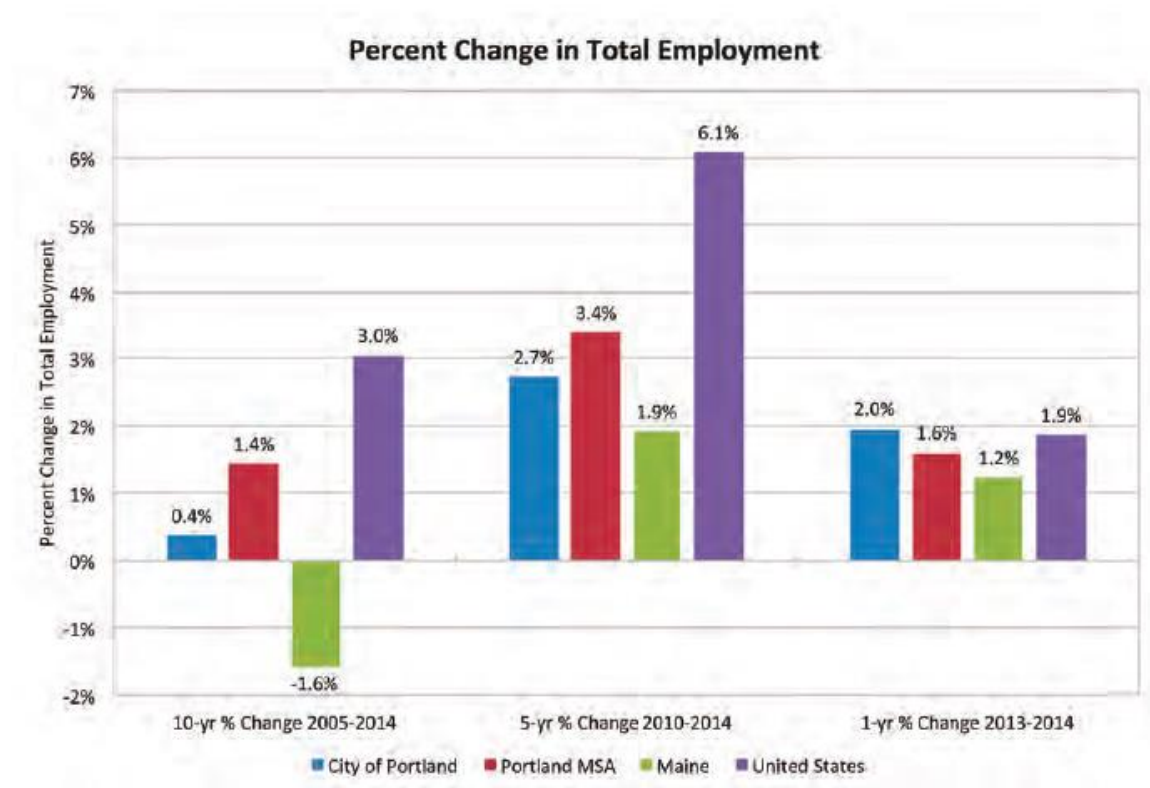
Total Employment Growth

Keeping Up ⇄

TARGET: Annual employment growth will exceed the national average

Between 2013 and 2014, employment in the City of Portland increased by 2.0%, compared to a 1.9% increase nationally.

Over the five-year period from 2010 to 2014, Portland experienced a 2.7% increase in total employment. At the regional level (Portland MSA) the increase was 3.4%, while Maine overall gained 1.9%. National employment growth outpaced all the comparison geographies, with a 6.1% increase. Between 2005 and 2014, employment in the city increased by 0.4%, compared to a 1.4% increase regionally and a 1.6% decrease in Maine. At the national level, employment grew by 3.0% during the ten-year period.



Why is this of significance to Portland Water District?

Limited employment growth will limit growth in new customers.

Portland Economic Scorecard (continued)

Unemployment Rate

Exceeding ↑

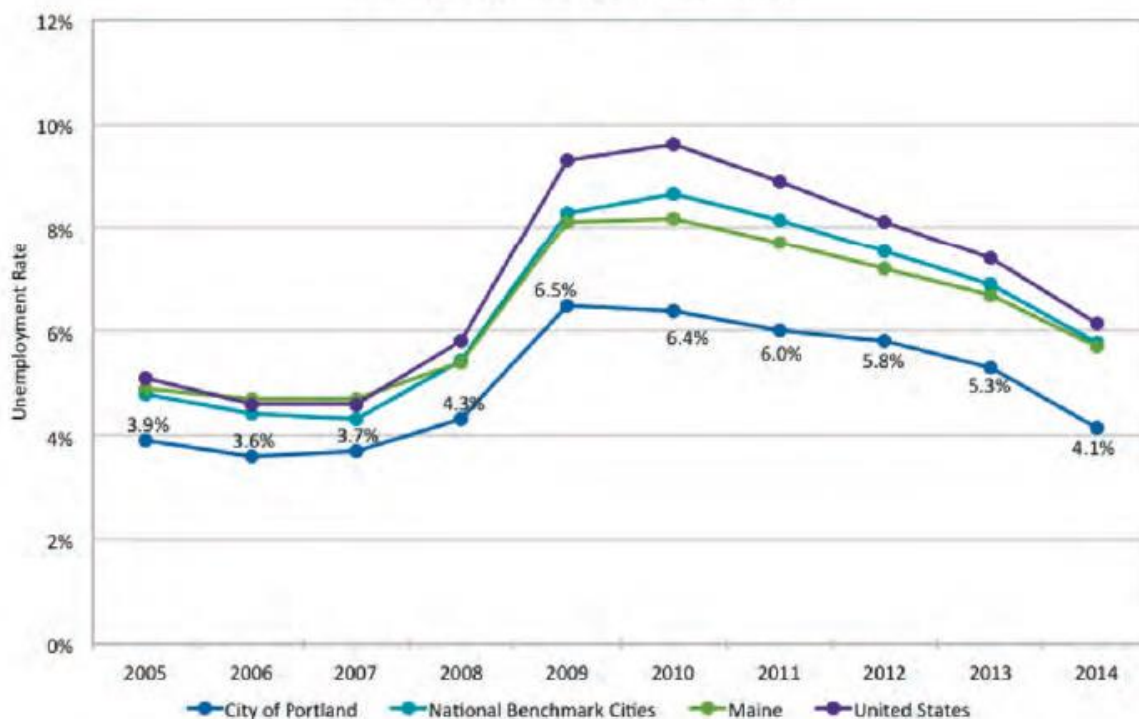
**Meaning a lower unemployment rate*

TARGET: The annual city unemployment rate will be below the national benchmarks

From 2005 to 2014, the annual unemployment rate for the City of Portland has remained lower than that of the national benchmark cities.

During this period, the unemployment rate for the City of Portland experienced a low of 3.6% in 2006, rose to a high of 6.5% in 2009, and has since dropped to 4.1% in 2014. Portland's 2014 level of 4.1% compares to 5.7% for the national benchmark cities, 5.7% for Maine, and 6.2% for the U.S. as a whole.

Unemployment Rate, 2005–2014



Why is this of significance to Portland Water District?

Because relatively more customers retained their jobs, the impact on the District's ability to collect water revenue was less than others. The District did see a reduced level of efforts in dealing with delinquent accounts in the past couple of years.

Portland Economic Scorecard (continued)

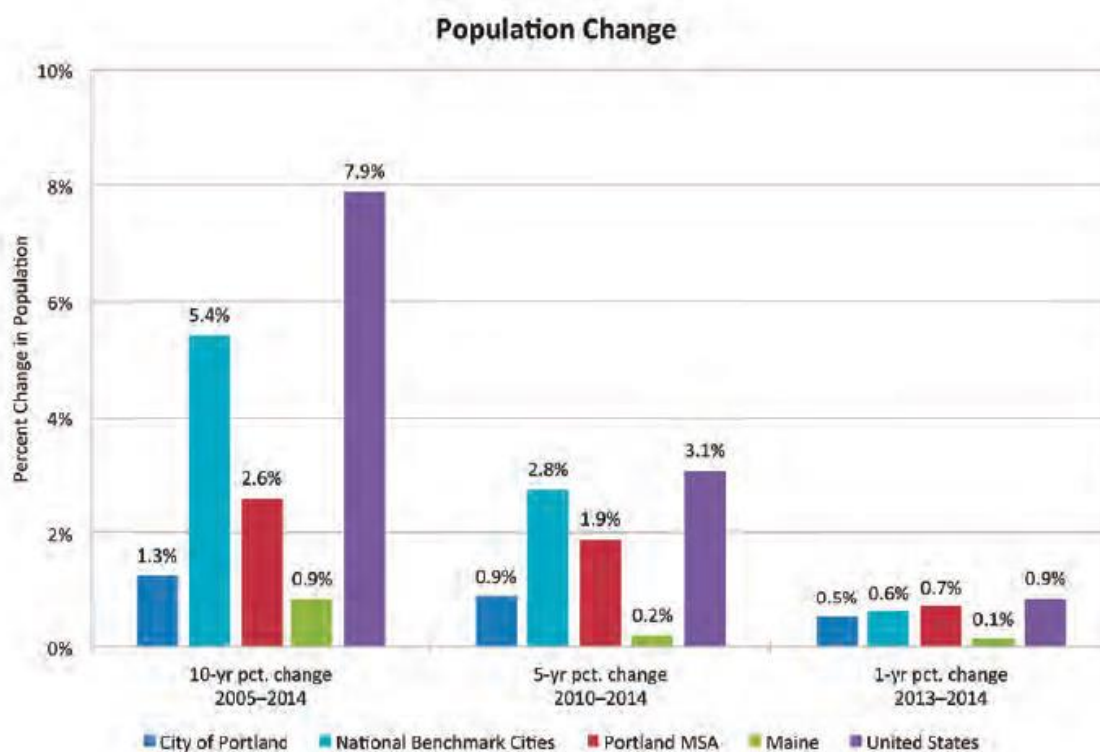
City Population Growth

Keeping Up ⇔

TARGET: Annual city population growth will equal the national benchmarks.

Between 2013 and 2014 the City of Portland experienced comparable population growth (0.5%) to the national benchmark cities (0.6%).

From 2010 to 2014, the population of the City of Portland increased by 0.9%, while the national benchmark cities increased by 2.8%. From 2005 to 2014, the population of the City of Portland increased by 1.3%, while the national benchmark cities increased by 5.4%.



Why is this of significance to Portland Water District?

Limited population growth in new customers resulting in any cost interest born by existing customers. Like other areas, the population is also aging. This will most likely cause household size, and thus average household water consumption to decline.

Portland Economic Scorecard (continued)

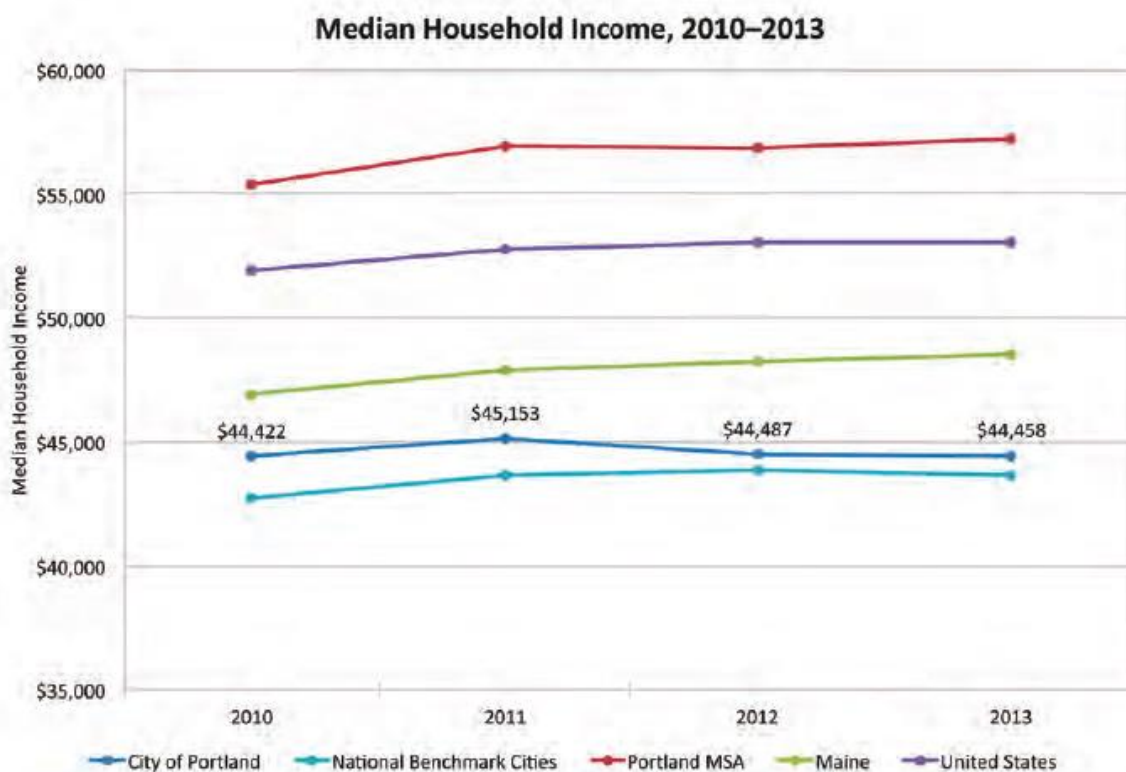
Median City Household Income

Keeping Up ⇔

TARGET: Annual city median household income will exceed the national benchmarks.

On average in 2013 households in the City of Portland have slightly higher incomes than the national benchmark cities, but the gap has been closing since 2010.

In 2013, the median household income in the City of Portland was \$44,458. This was higher than the national benchmark cities (\$43,675) and lower than the median for the Portland MSA (\$57,193), Maine (\$48,543), and the national average (\$53,046). Between 2012 and 2013, the City of Portland's median household income decreased slightly, but generally held level.



Why is this of significance to Portland Water District?

Currently the average household spends 0.5% of their income on water. One national affordability standard is no more than 2% of the household income should be allocated to pay for water service. With the expected rate increase in the coming years to pay for aging infrastructure and relatively small increase in median income, the percent spent on water will increase but should not meet the 2% threshold in the foreseeable future.

Portland Economic Scorecard (continued)

Housing Affordability- Ownership

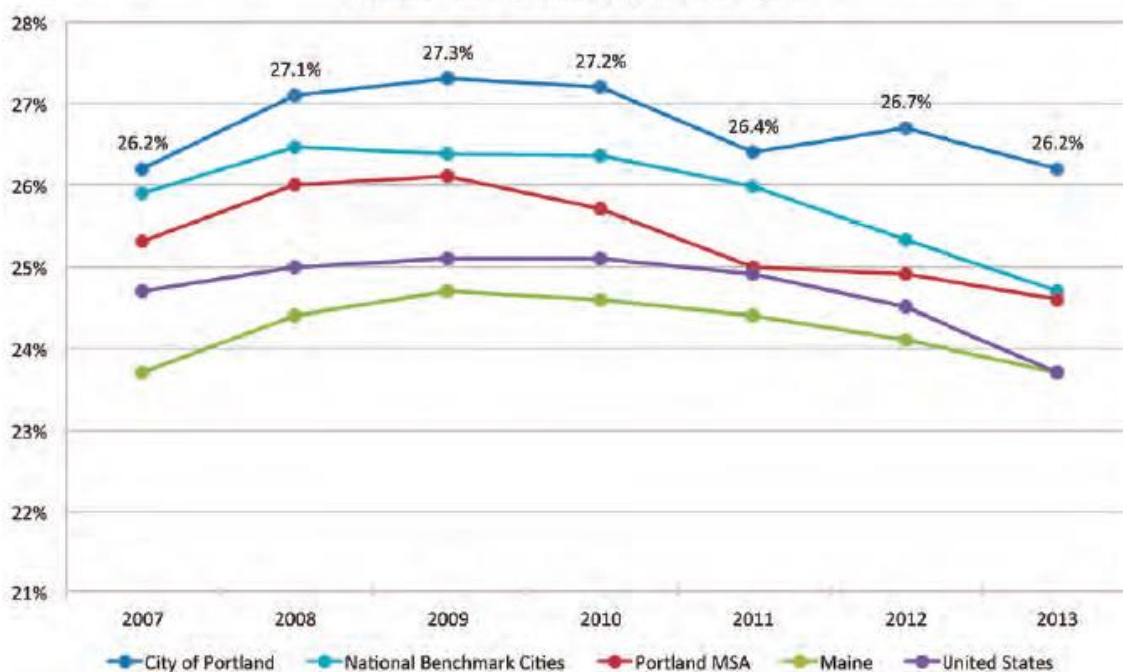
Lagging ↓

TARGET: Portland's median monthly housing costs as a percent of household income will be equal to or below the national benchmarks.

In terms of home ownership affordability, as measured by average monthly home ownership costs as a percent of income, the City of Portland is less affordable (26.2%) than the national benchmark cities (23.6%).

The City of Portland's median monthly homeownership costs as a percent of household income was consistently above that of the national benchmark cities, the Portland MSA, Maine, and the U.S. between 2009 and 2013. In 2013, these costs accounted for 26.2% of household income in the City of Portland, compared to 23.6% in the national benchmark cities, both experiencing a decrease from 2012.

Median Monthly Housing Costs as a Percent of Household Income, Owners with a Mortgage, 2009–2013



Why is this of significance to Portland Water District?

Heating, real estate tax, sewer fees and other housing costs will make customers less able or willing to afford future water rate increases.

Water Benchmark Data

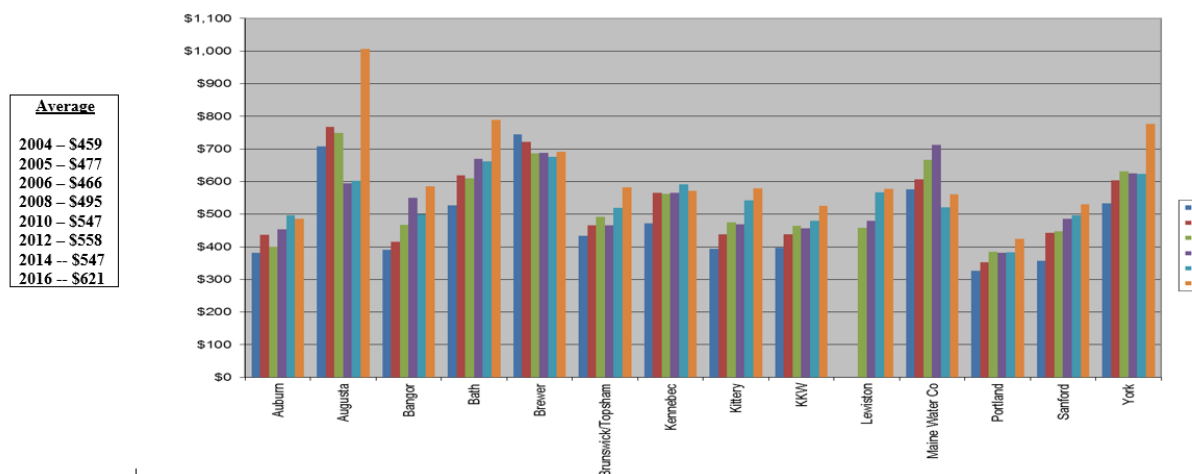
Maine Water Utilities Survey Results

The District participates in a survey of Maine water utilities. Two selected items surveyed are average customer revenue per thousand and debt per capita.

Key Ratio: **Average Customer Revenue**

Significance: Important to understand customer revenue for rate purposes.

Calculation: *PUC Annual Report Page F-4 Operating Revenue divided by W-3 Number of Customers*

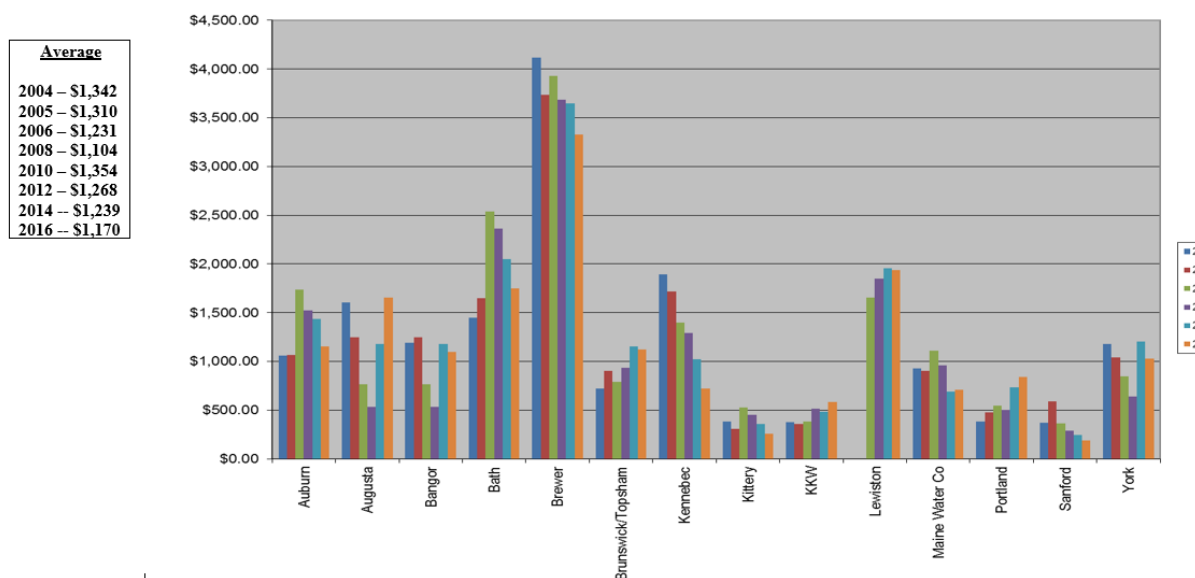


District's average revenue collected per customer is lower than other utilities indicating the relative efficiency of the District's operation.

Key Ratio: **Total Debt Per Capita**

Significance: Measures debt burden relative to service area population.

Calculation: *PUC Annual Report Page F-2 Account 221/232 Bond/Notes Payable divided by W-3 Number of Customers*



District has relatively lower debt service costs per capita, indicating the relative higher ratepayer capacity to pay for additional debt financing.

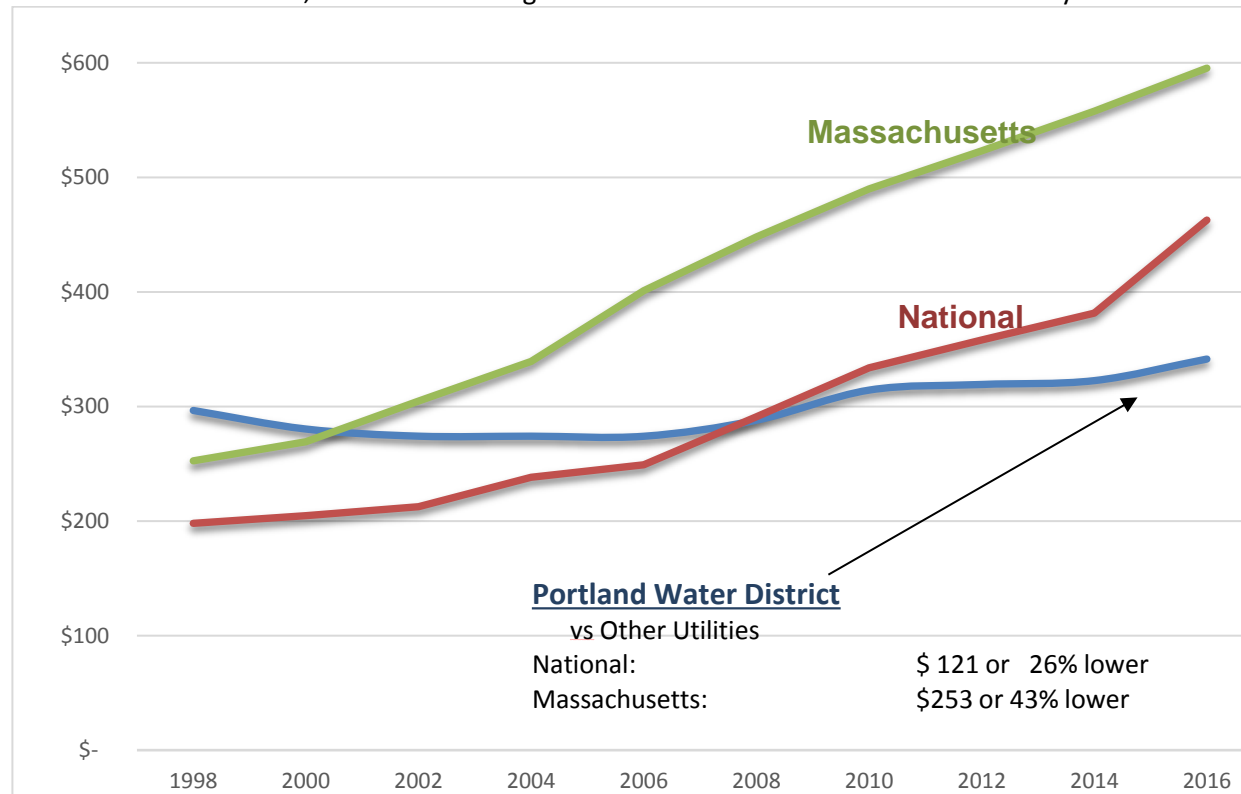
Water Benchmark Data (continued)

Water Rates

The District's rates are well below the Environment Protection Agency's affordability standard – water rates should not exceed 2% of median income. The District's service territory is a subset of Cumberland County and is the primary reason Cumberland County's rates are the lower than other Maine counties.

	Maine Median Income (MSHA) 2010-2016				Percent of Median Income			
	2010	2012	2014	2016	2010	2012	2014	2016
Androscoggin	\$40,653	\$45,699	\$44,921	\$47,537	1.06%	1.02%	1.19%	1.12%
Cumberland	\$52,459	\$57,267	\$57,461	\$60,051	0.84%	0.74%	0.79%	0.84%
Kennebec	\$44,668	\$46,904	\$46,808	\$46,917	1.47%	1.24%	1.28%	1.68%
Penobscot	\$40,301	\$43,601	\$43,734	\$44,271	1.43%	1.42%	1.34%	1.44%
Sagadahoc	\$54,754	\$56,865	\$56,733	\$53,298	1.21%	1.27%	0.58%	1.38%
York	\$54,134	\$56,552	\$57,348	\$57,919	0.93%	0.90%	0.93%	1.04%
Averages	\$47,828	\$51,148	\$51,168	\$51,666	0.99%	0.94%	0.87%	1.07%
Portland Water District	\$48,123	\$47,841	\$44,487	\$46,280	0.65%	0.67%	0.72%	0.69%

The District's water rates for a typical household are relatively lower than other Maine, Massachusetts and National utilities. Since the 2016 survey, the District rates have increased to \$355 from \$341. The budget requests an average increase of 3.8% to \$367. Even after the increase, rates will have only increased 24% since 1998, which is an average increase of a little more than 1.2% annually.



Portland Water District Rate Sheet Summary

A summary of Portland Water District's Water Rates and Municipalities' Sewer Rates as of October 1, 2017 is presented below. Water and Sewer is billed based on actual water consumption for all communities except Falmouth Wastewater customers. The chart shows the typical usage by the number of occupants in the household.

PORTLAND WATER DISTRICT RATE SHEET

Typical monthly consumption and charges for Residential users with 5/8" meter on daily usage of 60 gallons per person
Usage is rounded to nearest hundred cubic feet (hcf). 1 HCF = 748 gallons.

WATER RATES				
Effective Date		05/01/17		
# OF PEOPLE	GALLONS = HCF	MEMBERS	NON-MEMBERS	
1	1,800 =	2	11.39	13.10
2	3,600 =	5	18.23	20.99
3	5,400 =	7	22.79	26.25
4	7,200 =	10	29.63	34.14
5	9,000 =	12	34.19	39.40
6	10,800 =	14	38.75	44.66
7	12,600 =	17	45.59	52.55
8	14,400 =	19	50.15	57.81
9	16,200 =	22	56.99	65.70

SEWER RATES						
07/01/17	09/01/16	07/01/17	03/01/16	01/01/13	04/01/09	11/01/06
PORTLAND	CUMBERLAND	SOUTH PORTLAND	CAPE ELIZABETH	WESTBROOK	WINDHAM	GORHAM
19.30	47.50	10.02	55.18	17.26	48.84	20.03
48.25	63.37	25.05	72.22	35.65	48.84	38.90
67.55	73.95	35.07	83.58	47.91	55.32	51.48
96.50	89.82	50.10	100.62	66.30	65.04	70.35
115.80	100.40	60.12	111.98	78.56	71.52	82.93
135.10	110.98	70.14	123.34	90.82	78.00	95.51
164.05	126.85	85.17	140.38	109.21	87.72	114.38
183.35	137.43	95.19	151.74	121.47	94.20	126.96
212.30	153.30	110.22	168.78	139.86	103.92	145.83

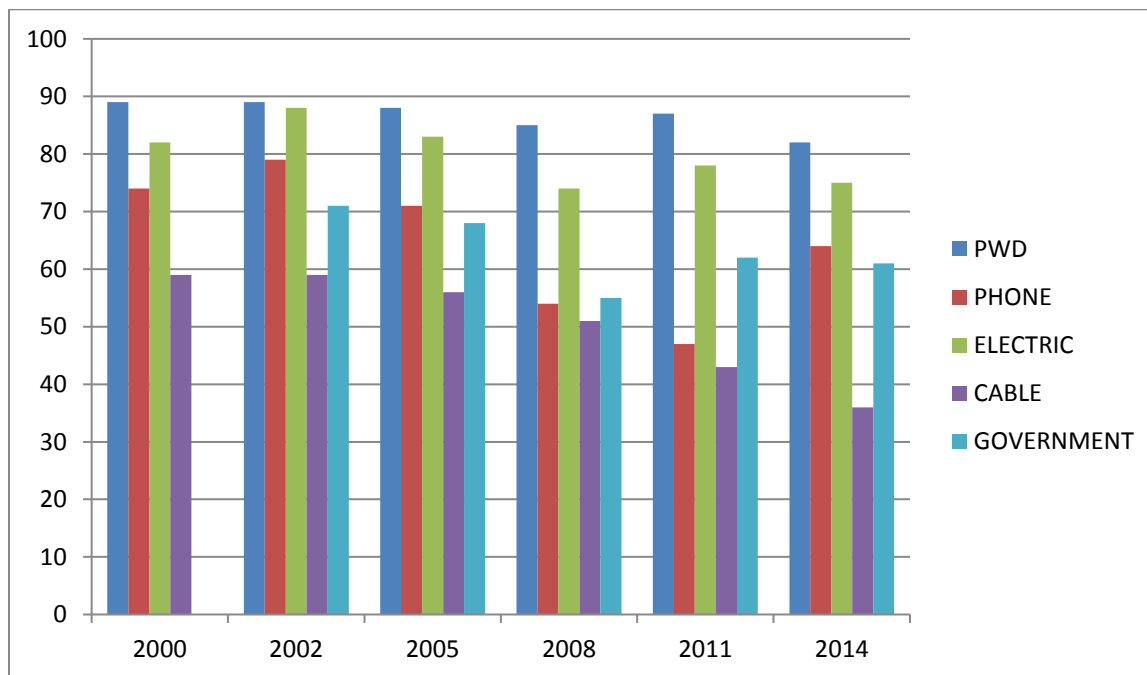
WATER RATES	Min Charge includes 1 HCF	Per additional HCF 2-30 HCF	Per additional HCF 31-100 HCF	Lifeline Water Rate (Reduction in Monthly Minimum Charge)	Minimum includes 1 HCF
MEMBERS	9.11	2.28	1.93	MEMBERS	2.28
NON-MEMBERS	10.47	2.63	2.21	NON-MEMBERS	2.63

SEWER RATES	Min HCF	MIN CHARGE	HCF	Municipal Contacts for Sewer	
PORTLAND	1	9.65	9.65	Rachel Smith	874-8833
CUMBERLAND	0	36.92	5.29	Pam Bosarge	829-2207
SOUTH PORTLAND	1	5.01	5.01	Colleen Mitchell	767-7675
CAPE ELIZABETH	1	49.50	5.68	Mike McGovern	799-5251
WESTBROOK	1	11.13	6.13	Eric Dudley	854-9105 x222
GORHAM	1	13.74	6.29	Freeman Abbott	222-1608
				Laurie Nordfors	222-1675
WINDHAM	5 hcf per unit	48.84	3.24	Anthony Plante	892-1907
FALMOUTH eff 07.01.2017	RATE PER LIVING UNIT	Commercial Fixtures > 17	SCHOOLS	Diane Moore	781-4462
	\$41.65 x # of units (Residential)	(\$41.65 x # of units) + (# of fixtures - 17 fixtures x \$1.97) (Com'l combination of fixtures)	\$39.06 for every 15 students (Schools)	Note: These are the most common sewer rates, but this is not a complete list.	

Customer Satisfaction Survey

A periodic customer satisfaction survey is conducted. The last survey was conducted in 2014. A summary of the results is below and indicate that overall satisfaction remains high relative to previous surveys and other local utilities. Relatively low sewer scores mostly attributed to including the relatively high and increasing municipal sewer charges on the District's water bill. The next survey is scheduled for late 2017, after the publication of this budget document.

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 27, 2017

Subject: Proposed Budget Orders

Presented By: Carrie Lewis

The Administration and Finance, Operations and Planning Committees reviewed the 2018 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 2018 budget and authorizes billing the municipalities for wastewater and billing services.

Order 17-029

ORDERED that the 2018 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 2018 the participating municipalities for wastewater related costs as follows:

Town of Cape Elizabeth	\$ 1,539,840
Town of Cumberland	905,364
Town of Falmouth	310,056
Town of Gorham	1,106,148
City of Portland	12,248,424
City of Westbrook	2,533,176
Town of Windham	360,528

and to assess non-participating municipal corporations for billing-related costs as follows:

City of South Portland	\$ 197,184
Scarborough Sanitary District	11,256

The motion accepts the proposed capital improvement plan and authorizes staff to implement the 2018 projects within the restrictions stated below and in compliance with the purchasing policy guidelines.

Order 17-030

ORDERED that the 2018-2022 Capital Improvement Plan is hereby adopted and the General Manager is authorized to solicit bids or proposals for the year 2018 projects, excepting CIP# 50, project 2542 – Hansen Replacement, 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 2018 for the replacement and extension of water mains, services, valves and hydrants as outlined in the Water Distribution Systems Upgrades Program and to authorize the General Manager to award and enter into contracts if the bid or partnering proposals are within the overall program budget.

Before approving water rate adjustment, staff will provide additional information for the Board's consideration. Additionally, if the Board decides a rate adjustment is necessary, public notice will be provided to all customers and a public hearing will be held.

Order 17-031

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 3.8% for further Board consideration.

In compliance with Internal Revenue Service (IRS) regulation, an 'intent to borrow' motion must be approved by the Board before expenditures are incurred on a project that may be financed with tax-exempt financing. Resolutions 17-013 to 17-016 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 17-13

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for water fund projects identified in the 2017 CIP. The full form of the resolution is attached hereto and incorporated herein by reference, and shall be part of the minutes of this meeting.

Resolution 17-014

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Cape Elizabeth wastewater fund projects identified in the 2017 CIP. The full form of the Resolution is attached hereto and incorporated herein by reference, and shall be part of the minutes of this meeting.

Resolution 17-015

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Portland wastewater fund projects identified in the 2017 CIP. The full form of the Resolution is attached hereto and incorporated herein by reference, and shall be a part of the minutes of this meeting.

Resolution 17-016

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Westbrook wastewater fund projects identified in the 2017 CIP. The full form of the Resolution is attached hereto and incorporated herein by reference, and shall be a part of the minutes of this meeting.

Resolution 17-017

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs up to \$4,600,000 incurred by the District for acquisition and installation of an asset, billing and related software. 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 17-013
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 \$9,975,000.
2. **General Description of Property to which Reimbursement Relates.** The following is a reasonably accurate general functional description of the type and use of the property with respect to which reimbursements will be made:
 - Construction or installation of new water mains, valves, hydrants, services and meters;
 - Acquisition of vehicles, leak detection and related equipment;
 - Renovation of various water facilities;
 - Acquisition and installation of various computer-related equipment;
 - Building improvements at the Douglass Street facilities; and
 - Construction of new 407 zone pump 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 17-014
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 \$2,080,000.
2. **General Description of Property to which Reimbursement Relates.** The following is a reasonably accurate general functional description of the type and use of the property located in the Town of Cape Elizabeth with respect to which reimbursements will be made:
 - Replacement of obsolete assets or installation of new equipment at various pump stations, including Little Johns pump station, and
 - Replacement or installation of equipment at the treatment plant, including projects related to the headworks heating, ventilation and ultra-violet 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 17-015
DECLARATION OF OFFICIAL INTENT PURSUANT TO
TREASURY REGULATION §1.150-2
(Portland Sewer Fund)

WHEREAS, the Portland Water District (the “Issuer”) intends to proceed with the projects described in section 2 below (the “Projects”); and

WHEREAS, the Issuer intends to finance some or all of the costs of the Projects through the issuance of bonds or notes in anticipation thereof; and

WHEREAS, the Issuer may incur certain of the costs of the Projects prior to the issuance of such notes or bonds and the Issuer expects to be reimbursed from the proceeds thereof; and

WHEREAS, Treasury Regulation §1.150-2 requires that the Issuer declare its official intent to reimburse itself for such expenditures with the proceeds of such notes or bonds.

NOW, THEREFORE, the Issuer does hereby declare its official intent as follows:

1. **Declaration of Intent.** The Issuer reasonably expects to reimburse itself for expenditures made on the Projects with the proceeds of bonds or notes in anticipation thereof to be issued by the Issuer to finance the costs of the Projects in the maximum principal amount of \$3,090,000.
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 influent screen, chlorine tank piping, heating, back-up power and SCADA systems;
 - Renovation and repair of equipment and facilities at the Peaks Island Treatment Plant, including compress air system;
 - Renovation of the India Street tide gate; and
 - Replacement of equipment at various pump stations, including Stroudwater and Northeast Pump Stations.
3. **Public Availability of Official Intent.** This Declaration of Official Intent shall be maintained as a public record of the Issuer.
4. **Treasury Regulations.** This is a declaration of official intent pursuant to the requirements of Treasury Regulations § 1.150-2.
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 17-016
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 \$ 210,000.

2. General Description of Property to which Reimbursement Relates. The following is a reasonably accurate general functional description of the type and use of the property located in the City of Westbrook with respect to which reimbursements will be made:

- Replacement of screen on various other CSO structures, and
- Renovation and repair of equipment and facilities at the Westbrook Regional Treatment Plant and various 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 17-017
DECLARATION OF OFFICIAL INTENT PURSUANT TO
TREASURY REGULATION §1.150-2
(Water and/or Portland 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 \$ 4,600,000.

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:

- Acquisition and installation of an asset, billing and related software.

3. Public Availability of Official Intent. This Declaration of Official Intent shall be maintained as a public record of the Issuer.

4. Treasury Regulations. This is a declaration of official intent pursuant to the requirements of Treasury Regulations § 1.150-2.

5. Authority for Declaration. This declaration is adopted pursuant to the following action of the Issuer: Resolution adopted by the Portland Water District Board of Trustees.

Glossary/Acronyms

Term	Description
407 Zone	A water pressure zone, supported by pump stations and water tanks, that is at an elevation above the District's water source (Sebago Lake).
Accurate bill index	The ratio of correct read adjustments on accounts to the total of all accounts.
Accrual Basis	The method of accounting under which revenues are recorded when they are earned (whether or not cash is received at that time) and expenditures are recorded when goods and services are received (whether or not cash disbursements are made at the time)
AMaP	Asset Management and Planning group, consisting of Engineering and Environmental Services
Amortization	The write-off of costs that has a financial benefit exceeding 1 year but is not a capital expenditure. The write-off period is determined based on an estimate of asset's useful life.
AMR	Automated Meter Reading
ARRA	American Recovery and Reinvestment Act of 2009. The federal stimulus law that provided federal subsidies for various projects in order to boost employment during a recessionary period.
Asset Information Management System	Computerized asset identification system used to document all asset maintenance schedules / procedures from day of acquisition to disposal.
BOD	Biochemical Oxygen Demand - a measure of organic material in the influent / effluent of the wastewater system expressed in lbs./ day
Bond	A written promise to pay (debt) a specified sum of money (called principal) at a specified future date (called the maturity date(s)) along with

periodic interest payments at a specific percentage of principal (interest rate).

Glossary/Acronyms

Capital Expenditure	Expenditures for a physical asset that exceeds \$5,000 and has a useful life of greater than 5 years or extends the useful life of an existing asset for more than 5 years.
CPE	Comprehensive Plant Evaluation
Cross Connection Fees	Fees collected for work relating to the inspection of water backflow devices.
Cryptosporidium	A one cell parasite that originates from the feces of infected animals and humans that can cause gastrointestinal illness.
CEWWTF	Cape Elizabeth Wastewater Treatment Facility
Customer Activation Fees	Fees charged customer if a new billing account needs to be created; typically when a customer moves into a new home.
Customer Connection Fees	Applications fees charged to customers requesting to install a new water main, service line or meter.
Customer Penalties	Disconnection fees charged to customers for non-payment of services.
Deferred Costs	Costs that have been incurred for a purpose that has a beneficial period in excess of one year but does not culminate into a capital expenditure. These costs are normally written-off to operating expense over the estimated useful life of the item.
DEP	Department of Environmental Protection, State of Maine
Depreciation	The write-off of an asset based on the decrease in value of property over its estimated useful life.
DHHS	Department of Health and Human Services
EEWWTF	East End Wastewater Treatment Facility

Glossary/Acronyms

Enterprise Fund	A proprietary fund used by governments to account for business-type activities. Such a fund is appropriately used for operations that are financed and operated in a manner similar to private business enterprise where the intent is that the costs be financed or recovered primarily through user charges.
EPA	Environmental Protection Agency, Federal Agency
ERP	Emergency Response Plan
FEMA	Federal Emergency Management Agency - a federal agency that provides financial assistance after declared national disasters.
Fire Service Outage Index	Standard to monitor hydrants returned to service within 3 business days.
Force Main (Sewer)	Sewer force mains are necessary when gravity flow is not sufficient to move water runoff and sewage through a gravity line. Force mains move wastewater under pressure by using pumps or compressors located in lift stations.
Fund	An independent fiscal and accounting entity with a self-balancing set of accounts recording cash and /or other resources together with all related liabilities, obligations, reserves, and equities which are segregated for the purpose of carrying on specific activities or attaining certain objectives.
Generally Accepted Accounting Principal (GAAP)	Uniform minimum standards of, and guidelines for, external financial and reporting. They govern the form and content of basic financial statements of an entity. GAAP encompasses the conventions, rules and procedures necessary to define accepted accounting practice at a particular time. The primary authoritative statements on the application of GAAP to local governments are Government Accounting Standards Board pronouncements (GASB).
HCF	Hundred Cubic Feet- the standard measure used for billing water usage, 1 HCF is equal to 748 gallons of water, 1 cubic foot of water is equal to 7.48 gallons.

Glossary/Acronyms

Industrial Pretreatment Program	A program responsible for permitting and monitoring industrial sewer customers who discharge significant quantities of non-domestic wastewater to the collection system to ensure their activities do not impact our operation or the receiving waters.
Infiltration/Inflow	Ground water that enters the sanitary sewer system through infrastructure weaknesses.
Interest from Customers	Late fees charged to past due balances. An account is considered delinquent after 25 days the bill is mailed customers.
Jobbing Revenue	Revenue for work performed by District employees which is billable to outside parties.
LOX	Liquid Oxygen, LOX is used by the District in the production of ozone which is used in the water treatment process
LTD	Long Term Debt
MDOT Cash Reserve	Funds received from Maine Department of Transportation from sales of land to be reserved for future land purchases.
MEANS	Main Extension and New Services program
MMBB	Maine Municipal Bond Bank
Ozone	A gas formed by electrical discharge in air used as an oxidizing, deodorizing and bleaching agent in the purification of water.
Pentamation	Accounting software used by Portland Water District
PI	Plant Information - a database used to automatically compile performance information on a specific asset.
Proprietary Funds	Accounting funds established to separate assets and operational costs based on the type of system (i.e. Water or Wastewater) or Wastewater municipality.
PS	Pump Station

Glossary/Acronyms

PUC	Public Utilities Commission, a State of Maine agency charged with regulating utilities.
Quasi-municipality	Independent government entity as defined by state law. It has many of the responsibilities and rights of a typical governmental entity.
R&R Multi-fund Assets	Assets utilized by all funds and paid for by allocations to the funds (i.e. computers, meters, administrative office space).
Renewal and Replacement Funds	A cash reserve created to fund smaller capital projects.
Sanitary Sewer Overflows (SSO)	Sewer systems that contain only sanitary flows that may discharge directly into water bodies without being treated.
SLWTF	Sebago Lake Water Treatment Facility
SOP	Standard operating procedure
Spatial Scheduling	Use of the district's geographic information system to schedule customer appointments on a daily basis to best utilize manpower and vehicle usage.
SRF	State Revolving Fund- Maine Municipal Bond Bank program for long-term financing
STD	Short Term Debt
SU	Standard units of measuring Ph with a range of 1 - 14.
Sub-meters	Meters installed to measure water that will not be returned to the sewer system for disposal. This water may be used for irrigation purposes or other outside use and therefore should not be included in the calculation of wastewater disposal charges.
SWTR standards	Surface Water Treatment Rules
TCR samples	Total Coliform Rule
10th Percentile Chlorine Residual	Minimum residual found in water samples approximately 90% of the time.

Glossary/Acronyms

TIF	Tax Increment Finance - a designated municipal fund established to fund structural improvements
TPS	Thickened Primary Sludge
Tropic State Index	Calculated measure of lake productivity with clear, clean water as the desired result. Range of less than 30 to greater than 100 with the lower the number, the better the results.
TSS	Total Suspended Solids - a measure of suspended material in the influent / effluent of the wastewater system expressed in lbs. / day
Unaccounted for Water	Water not measured by metered flow such as fire service use, main leaks, etc.
UV	UV stands for Ultra Violet. UV water or wastewater treatment systems use special lamps that emit UV light of a particular wavelength that have the ability, based on their length, to disrupt the DNA of micro-organisms.
Water Outage Index	Index of the ratio of customer outage hours/million hours available. Customer outage hours are computed by taking the # of customers without water service times the number of hours the outage lasts. The hours available is derived by taking the number of customers times number days times 24 hours per day.
Watershed	A stretch of high land dividing the areas drained by different rivers or river systems into Sebago Lake.
Watershed Reserve	PUC allowed reserve of Water revenue to be used for future land purchases to protect PWD's watershed.
Weighted average unit price	Total cost of a product divided by the total product units
WIMS	Water information management solution (software)
WWPS	Wastewater Pump Station
WWTF	Wastewater Treatment Facility