

# Water and Sewer FY 2018 Budget Work-Session

May 17, 2017



# Overview of Tonight's Meeting

## ➤ Introduction

Brian Goetz – Deputy Public Works Director

David Hyder – Rate Consultant, STANTEC

## ➤ Highlights of FY 17

## ➤ Proposed FY 18 Water Budget

## ➤ Proposed FY 18 Sewer Budget

## ➤ Proposed FY 18 Water and Sewer Rates

## ➤ Questions

# Enterprise Funds - Water



- Bellamy Reservoir
- Madbury Water Treatment Facility
- 8 Wells (Haven off-line)
- 5 Storage Tanks
- Two Pressure Zones
- 3.5 to 6.5 Million Gallons a Day

- 189 miles of pipe
- 972 Public Fire Hydrants
- 2,840 Valves
- 8,203 Meters/Customers
- Serve 5 Communities and portions of 3 others



# Enterprise Funds - Sewer

- 115 Miles of piping
- 20 pumping Stations
- 1,650 Manholes
- Two Wastewater Treatment Facilities
- 6,342 Customers





# Water Division

# Accomplishments and Priorities

City of  
Portsmouth  
Department of Public Works



May 9, 2017

## Portsmouth Water Supply Status Report

### Overview

The following Portsmouth Water Supply Status Report provides the Portsmouth Water customers an assessment of the current water supply conditions. This report is distributed routinely via the City of Portsmouth's website at: [www.Cityofportsmouth.com/publicworks](http://www.Cityofportsmouth.com/publicworks) - water

### Water Use Restrictions

Customer Water Restrictions
N/A
None
Voluntary Measures
Odd/Even Watering
Two-Days per Week Watering
No Lawn Watering

The current water supply conditions have recovered from the drought that occurred in 2016. The mandatory "No Lawn Watering" water use restrictions and "Voluntary Measures" are no longer in effect; however, we ask our water customers to please continue to use water wisely, minimize waste, and incorporate water efficient fixtures and appliances whenever possible. In an effort to support this goal, the City continues to offer all residential water customers rebates for the installation of low-flow toilets and high-efficiency washing machines. More details can be found in the Public Works Billing Information section of the City's website.

Precipitation events in late-2016 and early-2017 have helped to recharge the Bellamy Reservoir, increase stream flows and cause groundwater levels to rise to conditions typical for this time of year. Water operations staff continue to assess the supply conditions and will provide updates at least monthly.

Additional updates and tips regarding water efficiency can be accessed at the [cityofportsmouth.com](http://cityofportsmouth.com).

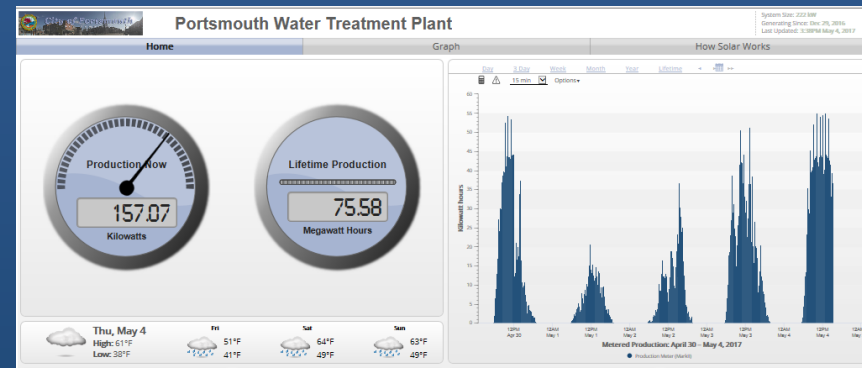
# Solar Arrays – Water Treatment Facility



Madbury Water Treatment Plant

The overview of the arrays are as follows:

Water Treatment Plant	
Size:	287 kW DC
Output:	~360,000kWhs in year 1
# of Panels:	846
Size of the panels:	79" x 39" x "1.3"



The Solar array at the Water Treatment Plant is ground mounted and will generate about 25% of the plant's energy needs.

# Hobbs Hill Tank Replacement



600,000 gallon tank replaces  
400,000 gallons tank

# Greenland Well Replacement



New Well in 2015

Pump Station replacement in 2017



# Water Projects



Madbury Well #5 Permitting - Ongoing  
Madbury Public Hearing – February 2017

# Water Main Replacements



Ongoing work throughout water system

# The Value of Water System Upgrades


## State Street Saloon Fire – April 9, 2017

- Pumpage to system
  - (4,200 Gallons per Minute)
- 10,000 Gallons-per-Minute delivered at peak of fire fighting
- 800,000 gallons estimated for duration of fire



# Pease Tradeport Water Treatment Air Force Agreements and Reimbursement

- Replacement Well Study - \$179,000
- Preliminary Design Study for Treatment System - \$60,000
- Pilot Testing and Activated Carbon Filter Demonstration Project - \$947,700
- Treatment Facility Comparative Analysis - \$46,623
- Final Treatment Facility Design in FY18
- Construction in FY19



**Department of Public Works**  
Portsmouth, New Hampshire

Department of Public Works, 680 Peverly Hill Rd, Portsmouth, NH 03801 Phone: (603) 427-1530, Fax: (603) 427-1539 | Contact

### Pease Tradeport Water Information

#### Pease International Tradeport Water System Update

The City of Portsmouth's Water Division has been actively working with the United States Air Force (Air Force), the United States Environmental Protection Agency (EPA), and the New Hampshire Department of Environmental Services (DES) in response to the detection of elevated levels of the unregulated contaminant perfluorooctane sulfonic acid (PFOS) from the Haven Well, one of three wells that serves the Pease International Tradeport and the New Hampshire Air National Guard base at Pease. PFOS is one of a class of chemicals known as PFCs or perfluorochemicals. Because the level of PFOS exceeded the "provisional health advisory" set by the EPA, the well was shut down by the City of Portsmouth on May 12, 2014 and since that time it has been physically disconnected from the system. A number of actions have been taken by the project team. The following documents provide additional information:

- [Pease RAB Meeting 3-22-17 Drinking Water System Update](#)
- [Pease Water Supply and PFC Demonstration Project Update 03.21.17](#)
- [Pease Water Supply and PFC Demonstration Project Update 02.06.17](#)
- [Pease Well Update to Pease CAP January 9 2017](#)
- [Pease Tradeport Water System Well Treatment Pilot Report Final](#)

# Pease Well Demonstration Filters



# Public Outreach – Drinking Fountains



Drinking Fountains at City Hall and Haven Park

# Public Outreach – Drought

## Public Notice and Enforcement

**City of Portsmouth**  
Department of Public Works

August 30, 2016

**Portsmouth Water Supply Status**

**Overview**

The following Portsmouth Water Supply Status Report provides the an assessment of the current water supply conditions. This report is a City of Portsmouth's website at [www.ci.portsmouth.nh.us/department-public-works](http://www.ci.portsmouth.nh.us/department-public-works)

**Odd-Even Water Use Restrictions**

Due to current supply and demand conditions Water Use Restrictions began on August 16th through conditions prevail. Additional restrictions may be required.

**Odd-Even Water Use Restrictions apply as follows:**

- A. **Odd-numbered days** – Outlets discharge and 10:00 A.M.
- B. **Even-numbered days** – No Outlets

Water use restrictions are required at this time through conditions on the Seacoast. As the weather improves, the most water restrictions continue to be in place. The most water restrictions continue to be in place. The most water restrictions continue to be in place.

Compliance with this water use restriction is mandatory and fines of \$100 per violation. Additional updates and tips regarding water use are available on our website or by calling at 603-766-7669.

**CITY OF PORTSMOUTH**

**PRESS RELEASE**

**FOR IMMEDIATE RELEASE**


August 16, 2016


**Portsmouth Water Division Enforces Water Restrictions**

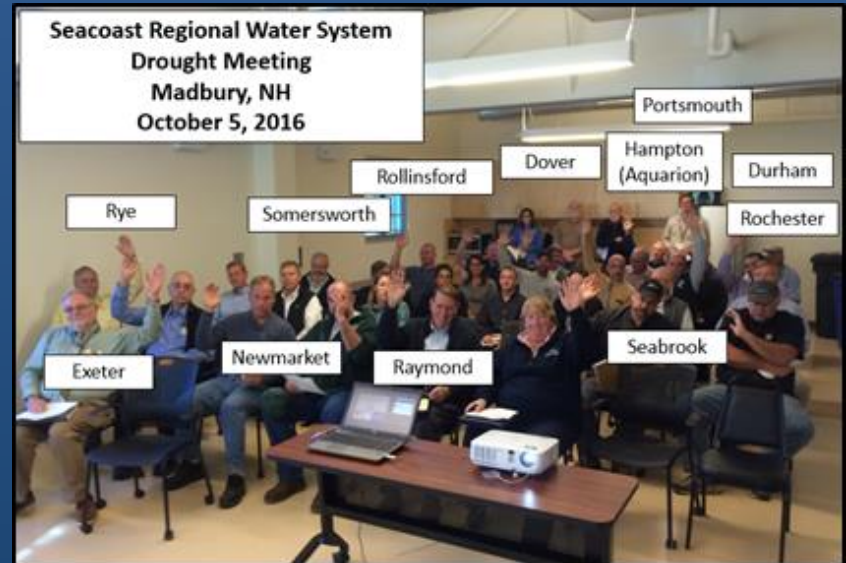
PORTSMOUTH, NH – Due to ongoing dry conditions, the Department of Public Works – Water Division will now be enforcing irrigation use. The Water Division is requesting customers reduce outdoor watering on even-numbered days, and to only water lawns and gardens on odd-numbered days from midnight to 10:00 a.m. (see attached Water Use Restriction sign).

"According to data tracked by the City's water operations staff, river levels are very low for this time of year and the reservoir is also lower than normal," states Brian Coetz, Deputy Director of Public Works. "This is an issue that has grown beyond the Seacoast. The water state is now experiencing abnormality due to severely dry water conditions, according to New Hampshire's Department of Environmental Services. While we have experienced recent rain events, the amount will need to be substantial in order to recover from drought conditions. In fact, it is very important that our customers take this seriously and cooperate in being efficient with their water use." City staff will continue to monitor these conditions, but it is likely these measures will be in effect until substantial rainfall and the Seacoast recovers from the current severe drought conditions.

Customers can read the full Water Supply Status Report and details behind the current water status at [www.ci.portsmouth.nh.us/department-public-works](http://www.ci.portsmouth.nh.us/department-public-works) (look for "water"), and view current status at <http://www.ci.portsmouth.nh.us/department-public-works>. For more information, please contact Brian Coetz, Deputy Director of Public Works at 766-1425.







# Public Outreach – Water Efficiency

- *Water Efficiency Flyer*

The water division inserted a water efficiency flyer in all 8,500 water customer bills in April 2016. This flyer focused on outdoor water usage and ways that this water could be used more efficiently.



*Save Water for  
Earth Day 2016*



This April 22nd marks the 46th anniversary of Earth Day, and what better way to celebrate than saving water in the great outdoors? You can get started with some of the outdoor water-saving tips below while you reconnect with nature and give back to the earth by saving water in your lawn or garden this spring.

Here are six simple tips to preserve this precious resource:

1. **Check the time:** Water your yard in the morning or evening to avoid losing water to evaporation in the heat of the day.
2. **Get in the “hydro” zone:** Group the plants in your garden according to their water needs, also known as using “hydrozones,” which reduce the risk of over watering your plants.
3. **Use mulch:** Adding mulch in your garden helps reduce evaporation, inhibit weed growth, moderate soil temperature, and prevent erosion.
4. **Keep control:** Upgrade to a WaterSense labeled controller, which acts like a thermostat for your sprinkler system using actual local weather conditions to tailor your watering schedule.
5. **Compost:** Instead of sending organic waste from your kitchen down the garbage disposal with water, add them to a compost pile. You can then use the compost as nutrient-rich soil to add to your garden.



Commit to save water! **WaterSense**



# Water Efficiency Rebate Program

## Water and Sewer Enterprise Fund



### Low-Flow Toilets (561 total):

200 rebates issued in 2015

219 rebates issued in 2016

142 rebates through April 2017

### High Efficiency Washing Machines (105 total):

71 rebates issued in 2015

16 rebates issued in 2016

18 rebates through April 2017

# Rebate Program – Average Monthly Water Savings As of January 2017

Analysis of Selected Locations with Rebates (Non Irrigation Months)



## Low Flow Toilets (21 locations):

- Pre Rebate – 4,760 gallons/month
- Post Rebate – 3,538 gallons/month
- Savings – 1,222 gallons/month
- 40 gallons/day savings
- **26% Reduction**



## High Efficiency Washing Machines (22 locations):

- Pre Rebate – 3,735 gallons/month
- Post Rebate – 2,764 gallons/month
- Savings – 971 gallons/month
- 32 gallons/day savings
- **26% Reduction**



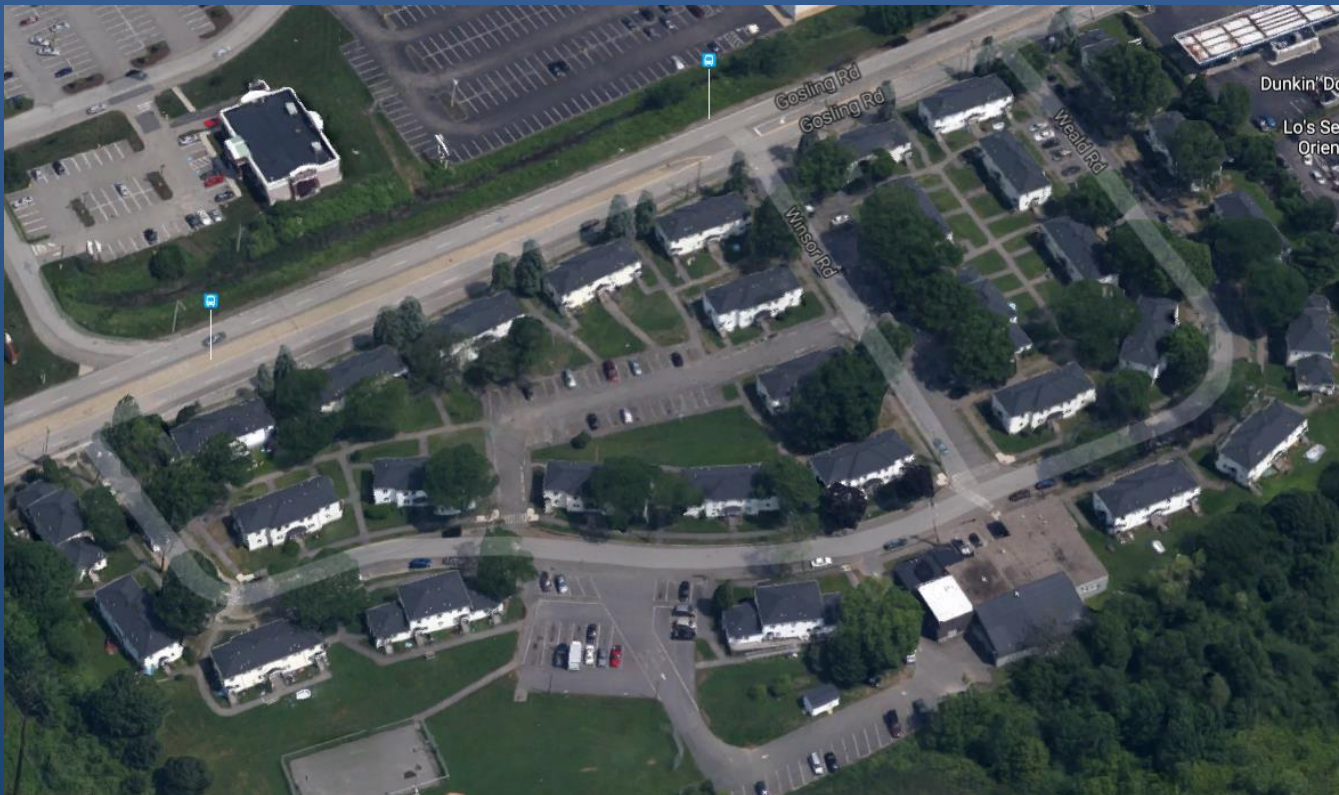
# Portsmouth Housing Authority

## Gosling Meadows Retrofit:

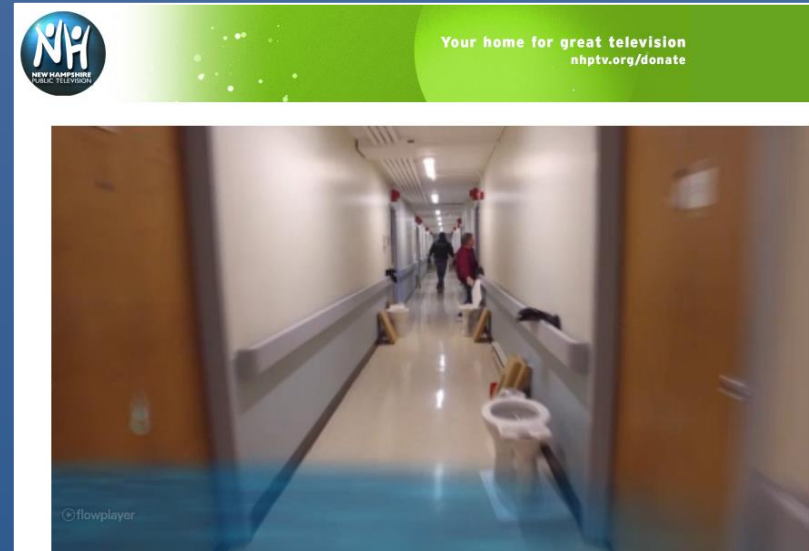
- 33 Buildings
- 118 Toilets replaced
- 3,119 gallons/day water savings (19% reduction)
- Approx. \$28,000 year savings on water/sewer billing
  - (As of April 2017)



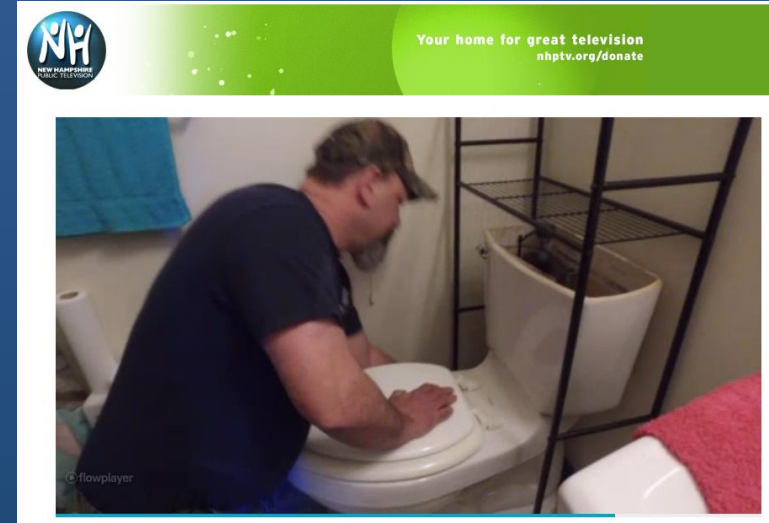
Portsmouth Housing Authority  
**Equal Housing Opportunity**



# New Hampshire Public Television Documentary



Portsmouth's Metering Program and Water Efficiency Outreach



Portsmouth Housing Authority's Low Flow Toilet Upgrade

# Assistance Program

- Assistance Program FY17
  - Ongoing Assistance - 25% Discount on Water/Sewer
    - 30 customers currently assisted
  - Temporary Assistance - \$300 one-time credit
    - 8 customers assisted YTD

## City of Portsmouth NH Water and Sewer Assistance Programs



Program Effective Date: 01/01/15

If you are a current customer of the City of Portsmouth's Water and Sewer Division you may be eligible for one of the following assistance programs:

- (1) *Receive On-going Assistance of 25% off your water and sewer bills with the Water & Sewer Annual Assistance Program.*

### Water & Sewer Annual Assistance Program

25% discount on water and sewer for income-eligible homeowners or tenants serviced by the City of Portsmouth's Division of Water and Sewer.

- (1) *Applicant must reside at the property and have a current water and sewer account at the address on the application.*
- (2) *See Application Section A for income restrictions.*
- (3) *Program discount is valid from date of acceptance forward. It is not applicable to any past due balances on the customer's account.*
- (4) *Applicant must provide the required documents as described on the application and schedule an appointment with the Billing Office.*

- (2) *Receive Temporary Assistance of up to a \$300 credit toward your water and sewer bill once per year.*

### Water & Sewer Temporary Assistance

The City of Portsmouth Water and Sewer customers may receive up to a \$300 water and sewer credit if you have a verifiable financial hardship that occurred within the past six (6) months (e.g. major medical expenses, job loss, or a change in marital status).

- (1) *Applicant must reside at the property and have a current water and sewer account at the address on the application.*
- (2) *Must be a verifiable financial hardship (see application form for more details).*
- (3) *Applicant must provide the required documents as described on the application and schedule an appointment with the Billing Office.*



Water and Sewer Billing Office - City Hall  
1 Junkins Ave  
Portsmouth, NH 03801  
603-610-7248 / [www.cityofportsmouth.com](http://www.cityofportsmouth.com)

### To access these services:

- 1. Verify your eligibility.**  
Check your eligibility for the programs for which you are applying (see programs listed to left).
- 2. Complete the appropriate application.**  
Be sure to include all requested documents as listed in the applications. Applications are available at City of Portsmouth Water & Sewer Billing Office.
- 3. Water & Sewer Assistance applicants must set up their appointment through the Billing Office.**

Please contact the Water & Sewer Billing Office located at Portsmouth City Hall to set up your appointment.

Phone # (603) 610-7248

### Process Time for Applications:

**Within three (3) weeks of your appointment you will receive a notification of approval, pending, or denial. Discounts through the Annual Assistance Program are good for one (1) year.**

**You need to apply each successive year thereafter.**



Sewer Division

# Accomplishments and Priorities



# Peirce Island Wastewater Treatment Facility Upgrade



- August 2016 – Awarded the Upgrade to Methuen Construction, of Salem, NH
- Construction began September 1, 2016


# Wastewater Public Outreach


- Website updates
- Press Releases with important project information
- Monthly public meeting at City Hall
- Coordination with Recreations Department
- Quarterly Update

**Peirce Island Wastewater Treatment Facility Upgrade Project**

[News and Updates](#) | [Recreational Info](#) | [Project Area](#) | [Construction Route](#) | [Media \(YouTube\)](#) | [Wastewater Home](#)

This project is the largest that the City has undertaken. The Peirce Island Wastewater Treatment Facility (WWTF) upgrade expands treatment at the plant to an advanced secondary process which removes organics and nitrogen. For more information on this project:

 **Donald Song, P.E., Project Manager,**  
Tel: (603) 610-7305  
Email: [dsong@cityofportsmouth.com](mailto:dsong@cityofportsmouth.com)

 **Terry Desmarais, P.E., City Engineer**  
Tel: (603) 766-1421  
Email: [tldesmarais@cityofportsmouth.com](mailto:tldesmarais@cityofportsmouth.com)

To report an issue, please fill out a [Report Form](#).

### Public Meetings

Monthly public meetings with City staff, the Contractor and other officials involved in the project are held every third Wednesday each month at 11 a.m. in Council Chambers to ensure that citizens are informed; these meetings are broadcasted and available on the City's YouTube channel, with presentations and notes available at [Wastewater Public Meetings](#). The next public meeting is *May 17*.

### The Coming Week

(Current Schedule 05/15/2017 - 05/19/2017)  
Anticipated Construction Traffic Volume: High

### Project Factsheet

• **Start Date: September 2016**



# PEIRCE ISLAND WASTEWATER TREATMENT FACILITY UPGRADE



## Quarterly Report

April 2017

### COST SUMMARY

Original Construction Contract	\$72,785,545
Change Order 1—January 2017	\$367,290
<b>TOTAL CONTRACT</b>	<b>\$ 73,152,835</b>
Funding Spent through April 1, 2017	\$12,958,668
Funding Spent through April 1, 2017	18%

After an extensive bidding process, the construction contract was awarded to Methuen Construction. The value for the historical resources in the area of Strawbery Banke. All the items in the change order were identified after the project was awarded. The

the construction project this past quarter executed. This work increased the size of the treatment facility to accommodate future work was added and improvements in the and realign the w order also included p

- Consent Decree Interi
- Consent Decree Interi
- Consent Decree Mile
- Consent Decree Mile
- Contract Milestone: P
- Contract Milestone: P

The project is on meet required Consent Contract Milestones. complete as of April 1, on the project completion date.

An excerpt of comm public meetings and the below.

**Q: Why were large ro the site?**

A: The rocks were being the construction of the stabilization).

**Q: People have been nights and weekends**

A: Increased police atten been paid and increased installed.

**Q: Why are CSOs not part of this project? V not being constructed issues?**

A: The City is compliant requirements in regards The CSO program (or L has been effective with number of CSOs has be

## PUBLIC MEETINGS

Public information meetings regarding construction activities are held on the third Wednesday of every month through the duration of the project. The meetings offer a forum for the public to provide feedback on the project.

Check out videos on the City's YouTube Channel at: [www.youtube.com/user/CityofPortsmouth](http://www.youtube.com/user/CityofPortsmouth)



## ADDITIONAL PUBLIC COMMENTS

Feedback was provided by email to City Staff regarding the following topics:

**Construction traffic has not been following stop signs and crosswalks on Marcy Street.**

The contractor has addressed all of his own employees and subcontractors that there is no tolerance for reckless driving and it is means for termination. Traffic cameras have been installed at the intersections of Marcy & Mechanic and Marcy & State to monitor tr

**Contractor has been starting construction prior to 7 AM on workdays.**

The contract restricts large deliveries utilizing oversize trucks from 12 AM to 8 AM. The contractor is allowed to start work at 7 AM and is prohibited from operating heavy machinery prior to 7 AM.

## LEG

ate last year, a small number of Portsmouth residents opposed to the Peirce Wastewater Treatment Facility (WWTF) Upgrade brought a Clean Water Act claim against the Environmental Protection Agency, the State of New Hampshire and the City of Portsmouth (the defendants). This action is pending in the United States District Court for the District of Hampshire.

Each defendant has filed a motion to dismiss action. These motions to dismiss the lawsuit are

## PARKING MITIGATION

The pool parking lot is being used during project for temporary offices for City treatment staff, the Contractor, and Engineers. In order mitigate the loss of parking for the Peirce outdoor pool, additional parking improvement planned.

The Four Tree Island parking lot area increased by approx. 50% and reconfigured which nearly double the number of parking spots. This will incorporate porous pavement and landscaping.

The grassed area adjacent to the existing ramp has been used for overflow parking in the In order to make this area more reliable and st the surface, drainage improvements w constructed in this area and new parking featu be provided to help better organize this parking

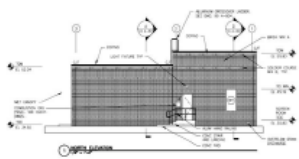
## UPCOMING WORK

The timeframe to build the new treatment facility components, such as the Headworks Building and the Biological Aerated Filter (BAF) will extend over multiple quarters. A general summary of upcoming work includes the following:

- Continued work on the Headworks Building including construction of the walls, roof, architectural finishes, and interior mechanical piping. The first Consent Decree project milestone is completion of this building later this year.
- Complete the new Sanitary Pump Station including the installation of mechanical equipment and piping, electrical, instrumentation and startup.
- Complete the excavation for the new BAF Filter Building including removal of the existing Filter Building and removal of ledge.
- Begin the foundation for the BAF Building including concrete forms and reinforcing.
- Construction of underground piping throughout the treatment facility site. This work will require significant coordination for maintaining existing operations at the treatment facility and avoid construction and operations impacts to vehicles moving through the site.
- Continue installation of reinforcing steel and concrete for the foundation and walls of the new Primary Effluent Flow Meter Vault and Sludge Thickener No. 2.



Headworks Building - Under Construction



Headworks Building - Proposed

Tours of the construction will be scheduled in the spring of this year. In the near term, the public may view the project and the staging areas by drone video. The videos provide a clear picture from overhead and may be accessed by going to the City's project web page.

# Pease Wastewater Treatment Facility Upgrades - Design

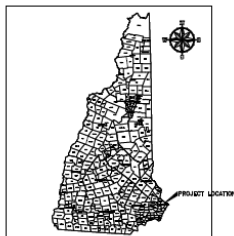


EXISTING  
FACILITY



PROPOSED –  
NEW  
HEADWORKS

**CITY OF PORTSMOUTH  
DEPARTMENT OF PUBLIC WORKS  
NEW HAMPSHIRE  
LAFAYETTE ROAD PUMP  
STATION UPGRADES**



**PROJECT LOCATION MAP**

**PROJECT NO. 227872.00**

**BID SET**

**FEBRUARY 2017**



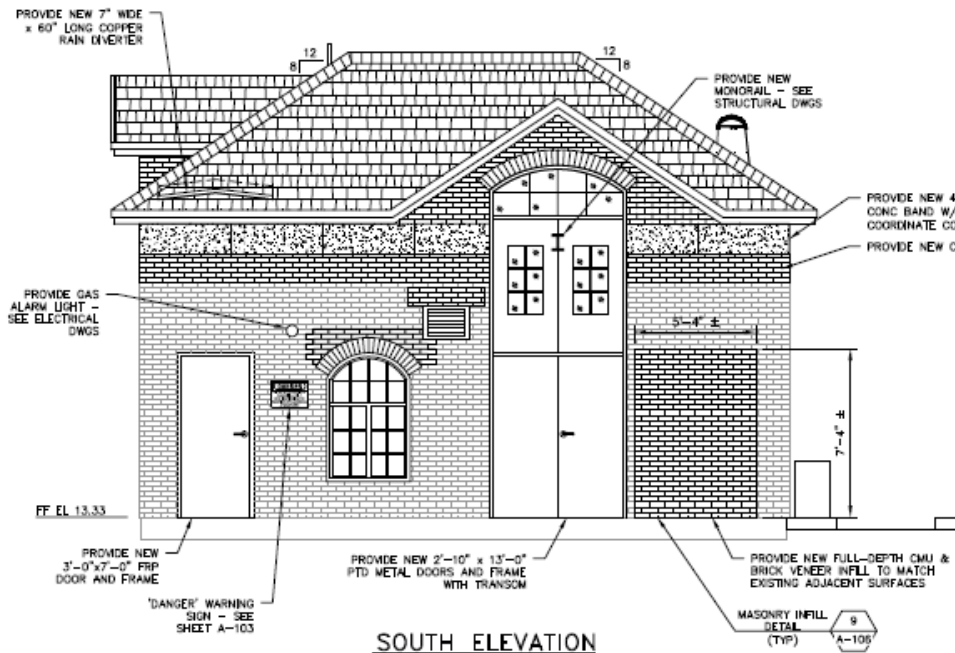
41 Hudson Drive  
Portsmouth, NH 03801  
603.436.4262 | www.woodardcurran.com  
COMMITMENT & INTEGRITY DRIVE RESULTS



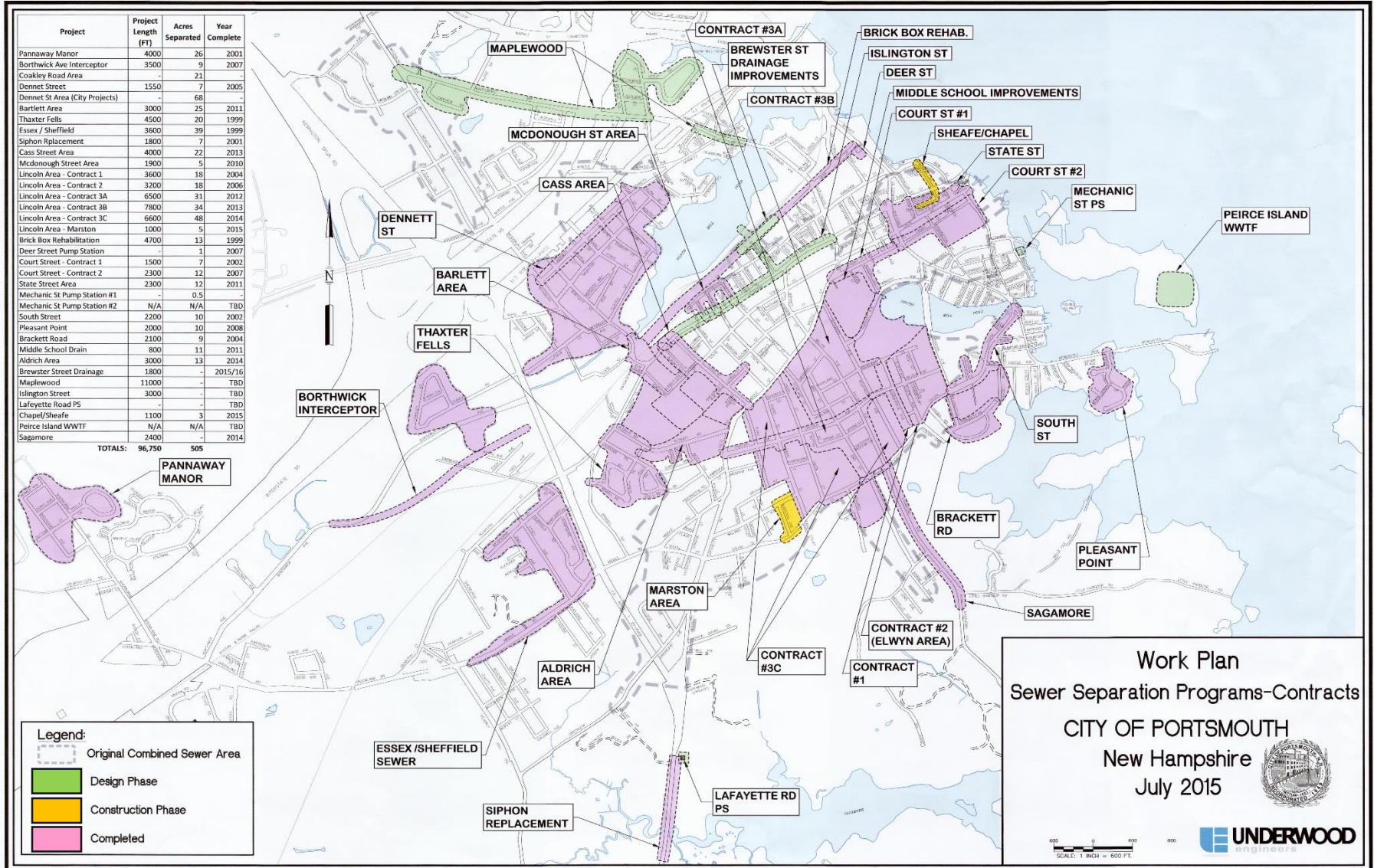
**SITE LOCATION MAP**

**EXISTING STATION**

**NEW STATION DESIGN**



# Long-Term Control Plan



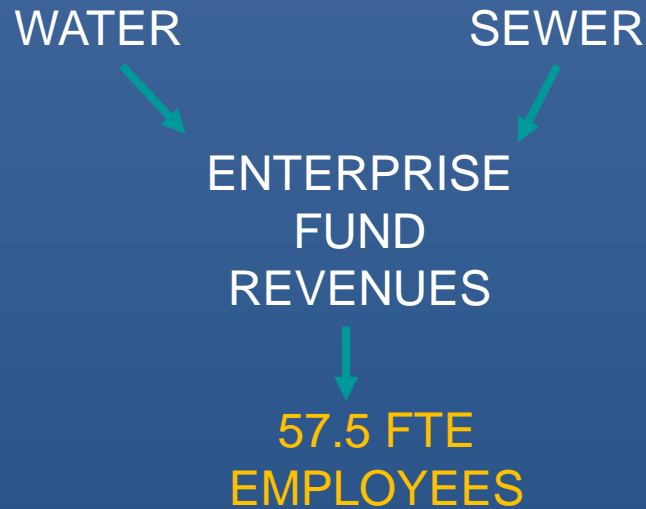
# GIS Interns – Stormwater Program



- **GIS Interns**

The Department of Public Works' Water and Sewer Divisions continued to employ the services of two (2) University of New Hampshire student interns to survey and assess stormwater infrastructure and other City infrastructure. The information gathered from the assessment of storm drains, pipes and outfalls is utilized by the City staff to identify operational and capital projects related to the stormwater programs. This effort will be very important as the City works to comply with the anticipated requirements of the MS4 EPA Stormwater permit.

# Water and Sewer Position Summary Schedule



\* Many Shared Positions between  
Water, Sewer, Highway and Parking/Transportation

**One new position in the Sewer Division –**

SCADA Technician. This job will support the upgraded wastewater treatment facilities.

# Water and Sewer FY18 Proposed Budget

# FY18 Water Capital Outlay

<u>Project Name</u>	<u>Amount</u>
Annual Water Line Replacement	\$250,000
Well Stations Improvements	\$150,000
Water System Pressure and Storage Improvements	\$170,000
Reservoir Management	\$100,000
New Groundwater Source	\$200,000
Water Transmission Main Replacement	\$250,000
Rolling Stock Vehicles and Equipment	\$210,000
TOTAL	\$1,330,000



# FY18 Water Bonded Projects

<u>Project Name</u>	<u>Amount</u>	<u>Funding Source</u>
Annual Water Line Replacement	\$2,500,00	Bond
Pleasant Street Water Mains	\$600,000	Bond
TOTAL	\$3,100,000	

# FY 18 Water Fund Budget

	Proposed Budget	% of Total Budget
Personnel Costs	\$2,524,140	25.4%
Chemicals	\$350,000	3.5%
Repairs	\$258,550	2.6%
Utilities	\$407,312	4.1%
Administrative Overhead	\$580,231	5.8%
Sludge/Grit Removal	\$125,000	1.3%
Prof Contracted Services	\$234,450	2.4%
Property Taxes	\$125,500	1.3%
Equipment	\$61,750	0.6%
Stock Materials	\$262,700	2.6%
Assistance Program	\$5,000	0.1%
Other Operating	\$327,902	3.3%
Interest on Debt	\$1,075,662	10.8%
Principal on Debt	\$2,255,028	22.7%
Capital Projects	\$1,120,000	11.3%
Rolling Stock	\$210,000	2.1%
<b><i>Total Budget</i></b>	<b>\$9,923,225</b>	<b>100.0%</b>

# FY 18 vs. FY17 Water Fund Budget

	FY17	FY18 Proposed Budget	FY17 vs FY18
Utilities	\$412,538	\$407,312	(\$5,226)
Chemicals	\$365,000	\$350,000	(\$15,000)
Sludge/Grit Removal	\$175,000	\$125,000	(\$50,000)
Assistance Program	\$10,000	\$5,000	(\$5,000)
Rolling Stock	\$199,000	\$210,000	\$11,000
Property Taxes	\$118,000	\$125,500	\$7,500
Stock Materials	\$232,200	\$262,700	\$30,500
Equipment	\$56,750	\$61,750	\$5,000
Administrative Overhead	\$571,227	\$580,231	\$9,004
Other Operating	\$334,906	\$327,902	(\$7,004)
Repairs	\$212,900	\$258,550	\$45,650
Prof Contracted Services	\$165,612	\$234,450	\$68,838
<b>Interest on Debt *</b>	<b>\$1,140,818</b>	<b>\$1,075,662</b>	<b>(\$65,156)</b>
Personnel Costs	\$2,563,809	\$2,524,140	(\$39,669)
<b>Capital Projects *</b>	<b>\$900,000</b>	<b>\$1,120,000</b>	<b>\$220,000</b>
<b>Principal on Debt *</b>	<b>\$2,142,528</b>	<b>\$2,255,028</b>	<b>\$112,500</b>
<b>TOTAL</b>	<b>\$9,600,288</b>	<b>\$9,923,225</b>	<b>\$322,937</b>

\* Capital Related Budget Funds

Proposed FY 18  
Sewer  
Fund Budget

# FY18 Sewer Capital Outlay

<u>Project Name</u>	<u>Amount</u>
Consent Decree Mitigation	\$100,000
Pease Wastewater Treatment Upgrades	\$800,000
Long Term Control Plan Related Projects	\$200,000
Annual Sewer Line Replacement	\$250,000
Pleasant Street Sewer Reconstruction	\$150,000
Regional Digester Facility at Pease WWTF	\$50,000
Vehicle and Equipment Replacement	\$472,500
TOTAL	\$2,022,500

# FY18 Sewer Bonded Projects

<u>Project Name</u>	<u>Amount</u>	<u>Funding Source</u>
Consent Decree Mitigation	\$400,000	Bond
Peirce Island Wastewater Treatment Upgrades*	\$3,500,000	Bond
Annual Sewer Line Replacement	\$3,000,000	Bond
Pumping Station Upgrades	\$700,000	Bond
Union Street Sewer Replacement	\$700,000	Bond
TOTAL	\$8,300,000	

Note: \* Council Authorization for Peirce Island Upgrade was \$75,000,000 per latest engineering estimate for total project funds needed for State Revolving Loan Fund

# FY 18 Sewer Fund Budget

	Proposed Budget	% of Total Budget
Personnel Costs	\$3,073,535	20.20%
Chemicals	\$676,000	4.40%
Repairs & Maintenance	\$346,775	2.30%
Utilities	\$553,350	3.60%
Administrative Overhead	\$580,231	3.80%
Sludge/Grit Removal	\$365,500	2.40%
Prof Contracted Services	\$243,659	1.60%
Permits Expenses/Legal Fees	\$425,000	2.80%
Equipment	\$165,500	1.10%
Stock Material	\$116,500	0.80%
Assistance Program	\$20,000	0.10%
Other Operating	\$552,474	3.60%
Interest on Debt	\$2,021,021	13.30%
Principal on Debt	\$4,060,593	26.70%
Capital Projects	\$1,550,000	10.20%
Rolling Stock	\$472,500	3.10%
<b>Total Budget</b>	<b>\$15,222,638</b>	<b>100.00%</b>

# FY 18 vs. FY17 Sewer Fund Budget

	FY17	FY18 Proposed Budget	FY17 vs FY18
Chemicals	\$673,000	\$676,000	\$3,000
Utilities	\$552,686	\$553,350	\$664
Other Operating	\$506,961	\$552,474	\$47,513
Permits Expenses/Legal Fees	\$147,500	\$425,000	\$277,500
Rolling Stock	\$450,000	\$472,500	\$22,500
Assistance Program	\$20,000	\$20,000	\$0
Sludge/Grit Removal	\$320,500	\$365,500	\$45,000
Stock Material	\$70,500	\$116,500	\$46,000
Prof Contracted Services	\$150,259	\$243,659	\$93,400
Equipment	\$189,000	\$165,500	(\$23,500)
Administrative Overhead	\$571,227	\$580,231	\$9,004
Personnel Costs	\$2,691,794	\$3,073,535	\$381,741
Repairs & Maintenance	\$331,825	\$346,775	\$14,950
<b>Principal on Debt</b>	<b>\$3,795,593</b>	<b>\$4,060,593</b>	<b>\$265,000</b>
<b>Interest on Debt</b>	<b>\$2,059,609</b>	<b>\$2,021,021</b>	<b>(\$38,588)</b>
<b>Capital Projects</b>	<b>\$2,400,000</b>	<b>\$1,550,000</b>	<b>(\$850,000)</b>
<b>TOTAL</b>	<b>\$14,930,454</b>	<b>\$15,222,638</b>	<b>\$292,184</b>

\* Capital Related Budget Funds

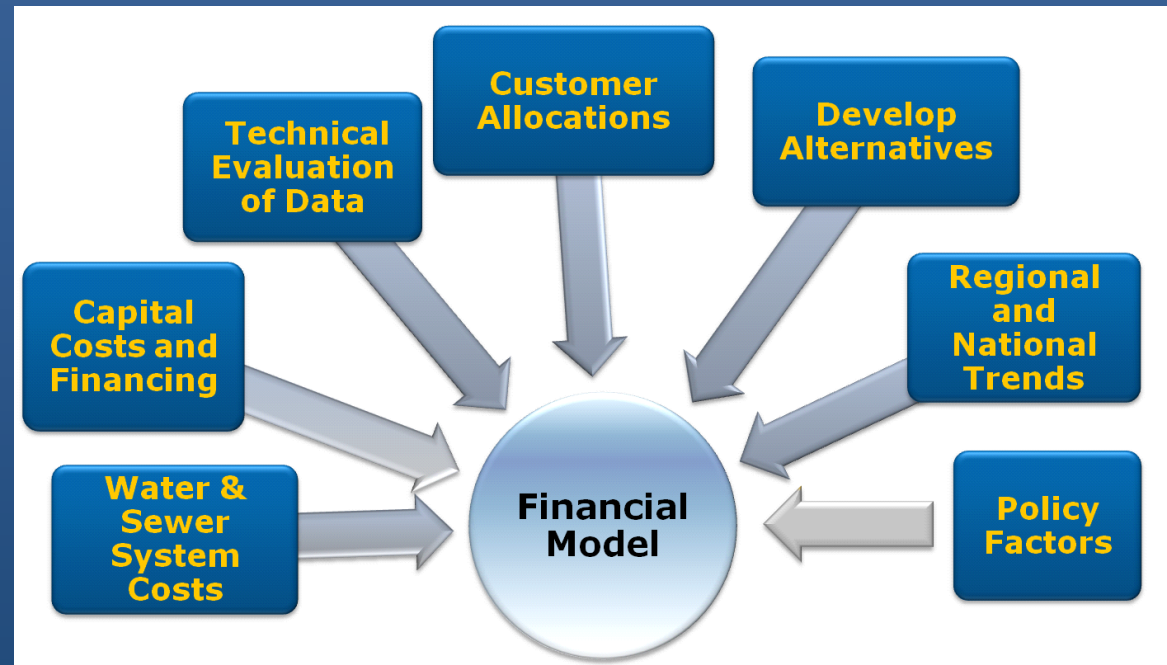


Continued Use of  
Water and Sewer  
Rate Model  
David Hyder –  
Stantec Consulting

# Rate Model Components

The rate model serves as the key tool to assist in long-term planning, allowing:

- Prudent financial planning which results in predictable rate increases
- Funding of significant capital projects
- Proactive management of the systems which results in lowest rates over time



# System Funding: Enterprise Funds

- Enterprise Funds Account for Operations That are Financed and Operated in a Manner Similar to Private Business
- Must have Fees and or Charges Sufficient Enough to Cover the Cost of Providing Goods and Services, Including Capital costs (i.e. Depreciation and Debt Service)
- Note: Property Taxes do not Subsidize the Water and Sewer Funds

# Water/Sewer Fund Challenges

- Aging Infrastructure
- Regulatory Compliance
- Evolving technologies and level of system complexities, especially with treatment facilities - both water and sewer
- Major Capital Projects

# Rate Study Highlights

- November 2012 - Rate Study Kickoff
- February 2013 - City Council Work Session
- March 2013 - Public Input Session Rate Study
- April 2013 - City Council Work Session Water & Sewer Budget
- March 2014 - Public Input Session Rate Study
- May 2014 - City Council Work Session Water and Sewer Budget
- FY15 and FY16 Budget Incorporated Rate Recommendations
- FY 17 Budget Incorporated Rate Recommendation Including:
  - Update of wholesale water rates
  - Implementation of irrigation rates

# Continued Use of “Glidepath” Approach to Raising Rates in Anticipation of Major Capital Projects



# FY18 Water Revenue Budget

The FY18 Water Division appropriations would be funded from the following sources to meet cash requirements:

- \$8,022,640 - Water Consumption (80%)
- \$1,929,195 - Other Fees (19%)
- \$ 47,390 - State Revenues/Special Agreements (<1%)
- \$ 89,000 - Other Financing (<1%)

# FY18 Proposed Water Rate

**0% Rate Change from FY 17 (no change since FY11)**

	FY 18 Proposed (per unit)
First Tier Rate (10 units or less per month)	
Capital Related rate, per unit billed	\$2.79
First 10 units billed per month	\$1.36
<b>Total First Tier Rate</b>	<b>\$4.15</b>
Second Tier Rate (over 10 units per month)	
Capital Related rate, per unit billed	\$2.79
Over 10 units billed per month	\$2.21
<b>Total Second Tier Rate</b>	<b>\$5.00</b>

*1 unit = 748 gallons of water*



# FY18 Proposed Irrigation Rates

**0% Rate Change from FY 17**

	FY 18 Proposed (per unit)
First Tier Rate (0 to 10 units per month)	
Capital Related rate, per unit billed	\$2.79
First 10 units billed per month	\$2.21
<b>Total First Tier Rate</b>	<b>\$5.00</b>
Second Tier Rate (11 to 20 units per month)	
Capital Related rate, per unit billed	\$2.79
11 to 20 units billed per month	\$6.91
<b>Total Second Tier Rate</b>	<b>\$9.70</b>
Third Tier Rate (all units over 20 per month)	
Capital Related rate, per unit billed	\$2.79
All units billed per month	\$9.26
<b>Total Third Tier Rate</b>	<b>\$12.05</b>

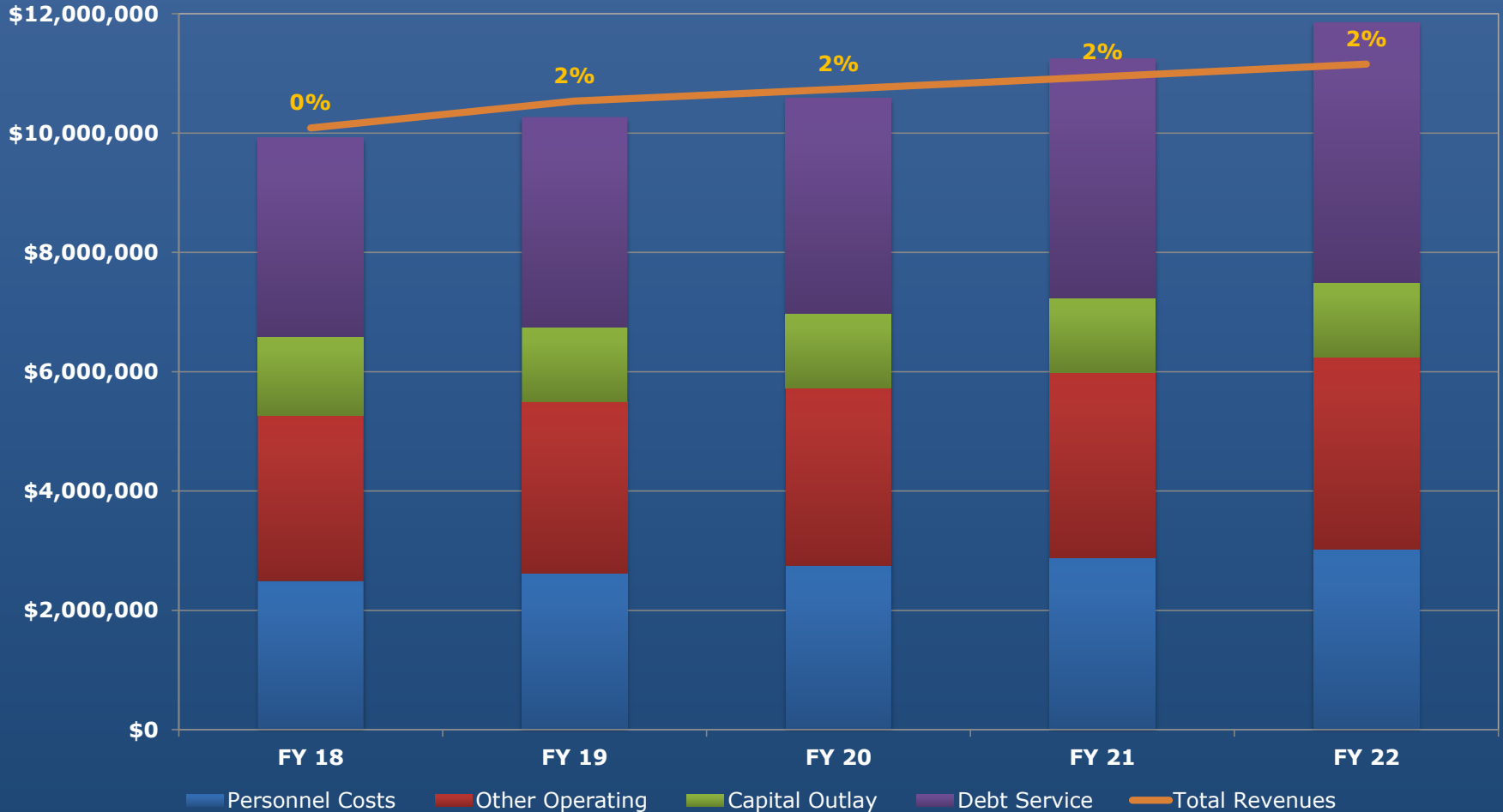
*1 unit = 748 gallons of water*

# Impact of Wholesale and Irrigation Rate Increases

- Modifications to wholesale and irrigation rates provide additional water revenue
  - Wholesale rate change generates approximately \$200,000 a year in additional revenue
  - Irrigation rates generate approximately \$140,000 a year in additional revenues
- Additional revenues have helped to offset the need for water rate increases in FY18

# Water Rate Projections

## Model for Rate Stabilization Approach



# FY18 Proposed Water Rate Average Residential Customer Bill

## FY 18 Water Rate

Average Residential Customer Bill

Monthly Consumption in units

(1 unit = 100 cf = 748 gallons)

	Rate	Billed Units	Monthly Charge
Capital Related Rate, per unit	\$2.79	5	\$13.95
1 <sup>st</sup> Tier water service rates	\$1.36	5	\$6.80
Minimum Charge (5/5" meter)	\$4.95	n/a	\$4.95
Total Monthly Charge			<b>\$25.70</b>
Total Annual Charge			<b>\$308.40</b>

# FY18 Sewer Revenue Budget

The FY18 Sewer Division appropriations would be funded from the following sources to meet cash requirements:

- \$15,630,407 - Sewer Consumption (93%)
- \$ 317,879 - State Aid Grant (2%)
- \$ 325,500 - Miscellaneous Fees (2%)
- \$ 427,160 - Special Agreements (2.5%)
- \$ 160,000 - Other Financing Sources (<1%)

# FY18 Proposed Sewer Rate

**4% Rate Change from FY 17**

	FY 18 Proposed (per unit)
First Tier Rate (10 units or less per month)	
Capital Related rate, per unit billed	\$6.75
First 10 units billed per month	\$5.98
<b>Total First Tier Rate</b>	<b>\$12.73</b>
Second Tier Rate (over 10 units per month)	
Capital Related rate, per unit billed	\$6.75
Over 10 units billed per month	\$7.25
<b>Total Second Tier Rate</b>	<b>\$14.00</b>

*1 unit = 748 gallons of water*

# Clean Water SRF

## Benefits:

- Draw down funds as the City needs them to pay invoices
- Loan payments begin one year following substantial completion (FY21)
- Principal Forgiveness of 5% (up to \$3.75M)
- Lock in Interest Rate 2.23% for a 20-Year Loan Term

STATE OF NEW HAMPSHIRE  
DEPARTMENT OF ENVIRONMENTAL SERVICES



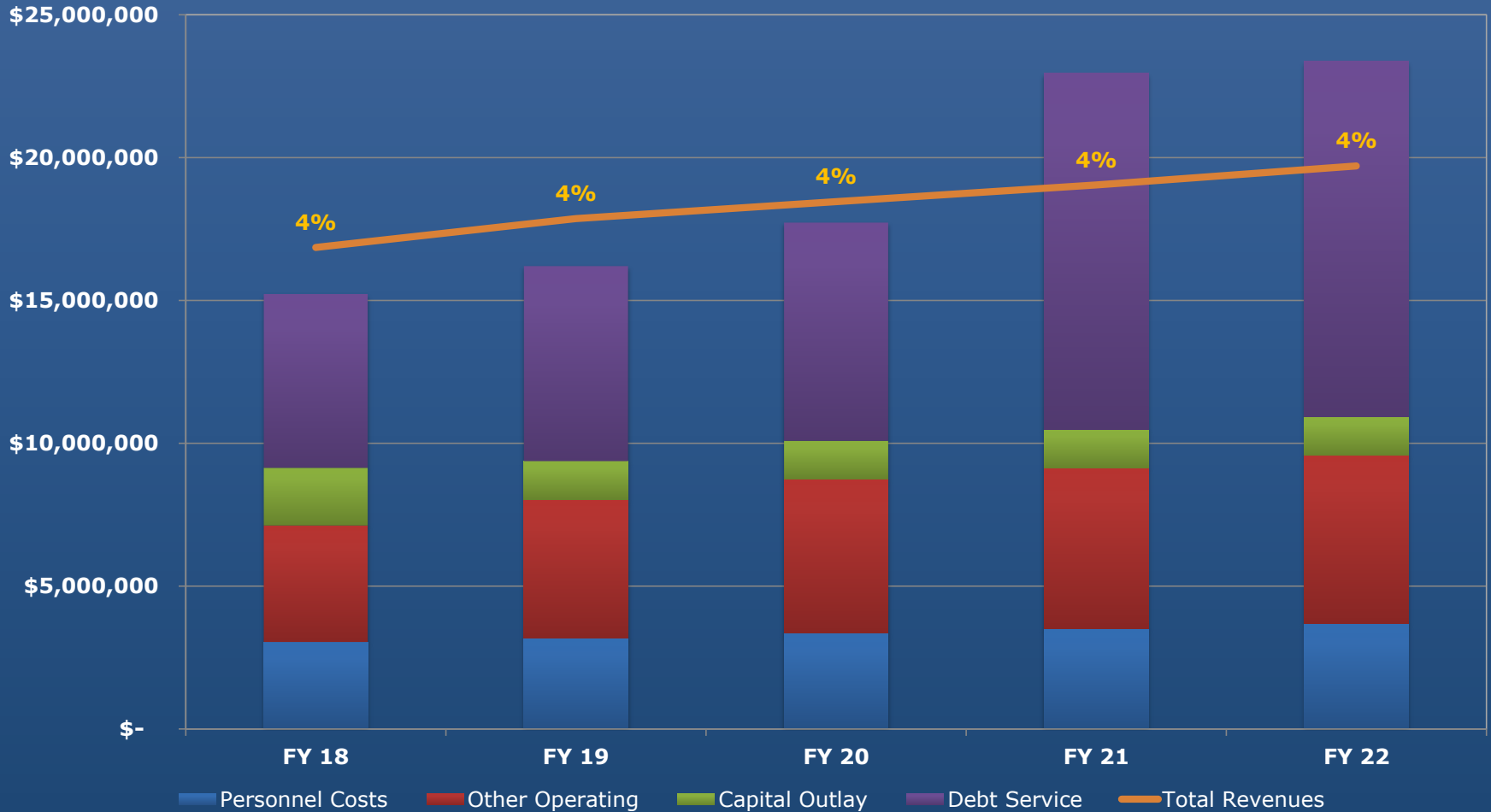
Clean Water State Revolving Loan Fund  
DRAFT Intended Use Plan  
Federal Fiscal Year 2015  
Capitalization Grant

\* Updated: 02/05/2016

CWSRF 2015 DRAFT INTENDED USE PLAN - August 2015

# Sewer Rate Projections

## Model for Rate Stabilization Approach





# FY18 Proposed Sewer Rate

## Average Residential Customer Bill

### FY 18 Sewer Rate

Average Residential Customer Bill

Monthly Consumption in units

(1 unit = 100 cf = 748 gallons)

	Rate	Billed Units	Monthly Charge
Capital Related Rate, per unit	\$6.75	5	\$33.75
1 <sup>st</sup> Tier water service rates	\$5.98	5	\$29.90
Minimum Charge (5/5" meter)	\$0.00	n/a	\$0.00
Total Monthly Charge			<b>\$63.65</b>
Total Annual Charge			<b>\$763.80</b>

This increase results in a monthly increase of \$2.45 per month or \$29.40 per year for the average residential customer.

# Discussion