



# TOWN OF KITTERY

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## TOWN COUNCIL

### WORKSHOP AGENDA

MONDAY APRIL 9, 2018

### COUNCIL CHAMBERS

5:00 P.M.

The Town Council will meet with the Town Manager to discuss the Sewer Enterprise Fund.

Posted: April 5, 2018



Kittery  
MAINE



# Town of Kittery

Wastewater Utility

Operations and Rate Review

April 9, 2018

# Sewer Utility Financial Review - Agenda

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- Utility Operations and Rates Review
  - Operational Review
    - Overview of Operations
    - Staffing Adequacy
    - Benchmarking
  - Rates and Fiscal Review
    - Status of Reserves Funds and General Fund obligations
    - Expenses v. Revenues
  - Projected Future Fiscal Position
    - Retain current revenue generation model
    - Options for revenue generation adjustment
  - Recommendations

# Operational Overview

- Sequencing Batch Reactor Secondary Treatment Plant
  - Rated for 2.5 millions of gallons per day (mgd)
  - Averages slightly over 1 mgd
  - Headworks for grit removal and screening
  - Effluent equalization and pumping
  - Sludge storage and dewatering (centrifuge with ash amendment)
  - Laboratory
- Collections System
  - 24 Pump Stations
  - 30 miles of pipelines
  - 400 manholes



# Operational Review - Staffing Level

- Wastewater Plant Operations

- Laboratory
- Dewatering
- Rounds and sampling
- General maintenance and cleaning

- Collections

- Visit and check every station once per week
- Coordinate cleanings (contractor) 2/yr for each station
- CCTV and jetting as needed
- Station and pump repairs as needed

- Seven Full Time Staff

- Superintendent
- Chief Operator
- Lab Technician
- Operator (G2)
- Operator (G2)
- Operator (G1)
- Maintenance Laborer



# Operational Review - Benchmarking

## Initial Benchmarking

Name	Rated Flow	Avg. Flow	Treatment	Laboratory	Dewatering	Septage Receiving	Miles of Pipe	No. Pump Stations	Staff
Kittery Sewer Department	2.5 mgd	1.15 mgd (Feb 2018)	Secondary - SBR	yes	yes	yes	30	24	7
Scarborough Sanitary District	2.5 mgd	1.24 mgd (2016)	Conventional Secondary	yes	yes	yes	68	23	12
Wells Sanitary District	2 mgd		Conventional Secondary	yes	yes	no	40	10	8
Provincetown MA Wastewater (Contract Operations)		0.75 mgd	Secondary - SBR	yes	Thickening	no	5	11	4

- Operating expenses are reasonable for the type and size of system
- Staffing is at the minimal level to meet permitting requirements and operating needs

# Rates and Fiscal Review – Fund Balances

## Current Situation:

1. Significant amount owed to Town General Fund now
2. Substantial reserves available to offset amount owed
3. While enterprise utilities need reserves in case of unforeseen expenses, current reserves are sufficient to allow partial repayment to General Fund
4. The Sewer Enterprise is in a negative net position and growing
5. With no change in revenue the amount owed to the General Fund will continue to grow

<u>Reserve Funds</u>	
Fund	Balance
Impact Fees (2900)	\$ 606,456
Betterments (2901)	\$ 138,582
Vehicle Reserve (4900)	\$ 166,983
Depreciation (4901)	\$ 153,418
Total	\$ 1,065,439
<u>GF Obligation</u>	
Period	Balance
FYE2017	\$ (1,099,658)
FY18 YTD	\$ (136,431)
Total	\$ (1,236,089)
Net Position	\$ (170,650)

# Rates and Fiscal Review – Expenses v. Revenues

- Structural revenue shortfalls
  - Day-to-day capital spending has been funded through use of non-recurring funds rather than annual capital allocation
  - Portions of the utility debt service have not been included in the utility operating budget
    - Treated as a balance sheet adjustment instead
  - Under best practices, capital and debt service would have been included in annual operating budget
  - Their inclusion in annual operating budget would have made revenue shortfall more evident in prior years
  - Best estimate is that, had these been included in the expense budgets, the shortfalls would have been around \$200,000/year **exclusive of the** expansion project being bonded
  - There have been no rate increases in the past 9 years



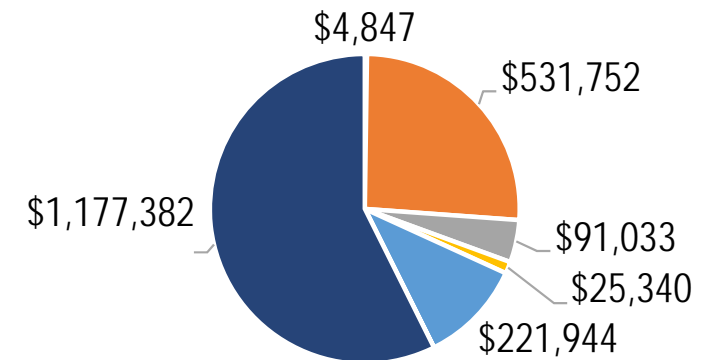
# Rates and Fiscal Review – Expenses v. Revenues

- Accumulated Deficit – approximately \$1,240,000 at FYE18
- Rates are insufficient to allow utility to “break even” – with or without new debt
- Additional debt service from most recent bonding - \$560,000/year, increasing to \$760,000/year in FY25
- Expected revenues from betterments - \$66,000/year, decreasing over time
- Estimated current revenue shortfall - \$750,000/year

# Current Revenue Generation

- Overall revenue generation is ~ \$1.9 - \$2.0 Million/year
- ~ 40% of revenues are assessed under contractual agreements (PNSY & Town of Eliot)
  - These bills are based on actual operation costs and percentage of flows as measured at the plant
  - Does not currently address need to generate or maintain operations/capital reserves
- Fixed charges and billed consumption generate ~ \$1.2 Million/year
- Maintaining current rate structure is not financially feasible
- Kittery customers will bear the large majority of the impact of the rate change

Sources of Revenue

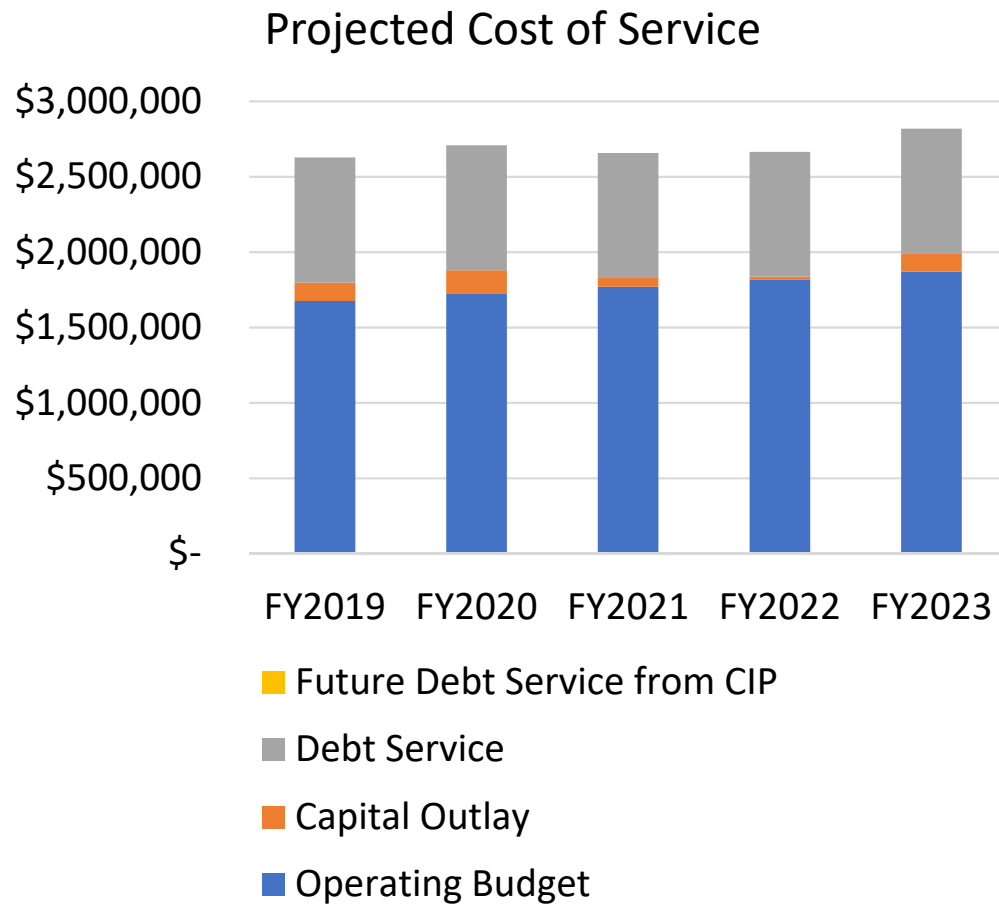


- REVENUE US NAVY
- REVENUE US NAVY HOUSING
- REVENUE OTHER
- REVENUE TOWN OF ELIOT
- REVENUE - base charge
- REVENUE - billed usage

# Projected Future Results

- What we need to do:
  - Fully pay operational costs, including all debt service through enterprise revenue
  - Repay Town General Fund deficit
  - Pay for planned capital expenditures
  - Build and retain industry standard reserves (90 days of expenses)
- If completed, this results in:
  - Stable rates in future
  - Protection of Town bond rating
  - Ability to address planned investment in critical public infrastructure
- Goal: - Achieve these results in 5 - 7 years

# Projected Future Cost of Service



## Utility Financial Model

Projected expenses includes:

- Operations Costs
- Capital Program Costs
  - Source: Projected CIP
- Debt Service Costs

# Projected Results

## Financial Model:

- Based upon historical billing, both fixed and volumetric
- All projections assume FY19 new debt service payment is covered by use of reserves (using Acct 2900 Impact Fees)
- Includes 1.5% growth in volume treated per year (new and expanding customers)
- Includes ten-year capital improvement plan
- With the exception of the projection for current rate structure, all projections are structured with the following goals:
  - Fully funding operations
  - Repayment of Town General Fund deficit
  - Fully covering utility debt service
  - Building reserves to 25% of operations



# Scenario 1 – No change in Rates

- Leads to large, persistent shortfalls
- Net deficit to the General Fund grows to ~ \$4M by end of FY23
- In time, this situation (unresolved) is likely to impact the Town's bond rating as MBB loans are general obligations of the Town
- Property taxpayers not on the sewer line will pay for the utility

## Town of Kittery, ME Sewer Budgetary Review Spring 2018

### Variables

Operations Budgetary Basis	Appropriated
Start point for Billed Consumption	3-yr average
Revenue Basis	FY2017 values
Sewer Consumption Growth (annual)	1.5%
Included Volume (HCF/quarter)	10
Volumetric Revenue Increase	\$0
Tier 2 Premium	0%
FY17 YE Reserve Funds Balance	-\$171,000
Reserve Funds Target (% of Budget)	25%
Unexpended FYE18 Budget	\$200,000

### Reserve Balance

Outstanding Sewer bills at FYE17	\$ 1,065,000
Sewer Enterprise debt to Town @ FYE17	\$ (1,236,000)
Net Reserves Position	\$ (171,000)

		Water and Sewer Rates - Residential/Commercial (\$/unit)						
		Tier	Current	2019	2020	2021	2022	2023
Rate Change (%)		Sewer	0%	0%	0%	0%	0%	
Base Quarterly Charge		\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	
Capital Charge		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Water	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Sewer	Tier 1'	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	Tier 2	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	

Sewer Enterprise Fund - Projected Rate Performance



# Options for Increased Revenue Generation

- Revenue generation options:
  - A. Increase in fixed charges / introduction of fixed capital charges
  - B. Increase in volumetric rates
  - C. Removal of “included consumption” in the bills – pay for every gallon used
  - D. Charge two contract holders for reserve generation and/or renegotiate contract terms
  - E. Combination of the above

# Scenario 2 – Stable Revenue from All Users (RECOMMENDED)

- Use Reserves to pay FY19 debt service for expansion
- Increase fixed charges to \$125/quarter
- Increase volumetric rate from \$5/HCF to \$8.94/HCF
- Maintain 10HCF/quarter in included volume
- Maintain these rates through FY23

## Town of Kittery, ME Sewer Budgetary Review Spring 2018

### Variables

Operations Budgetary Basis  
Start point for Billed Consumption  
Revenue Basis  
Sewer Consumption Growth (annual)  
Included Volume (HCF/quarter)  
Volumetric Revenue Increase  
Tier 2 Premium  
FY17 YE Reserve Funds Balance  
Reserve Funds Target (% of Budget)  
Unexpended FYE18 Budget

Appropriated
3-yr average
FY2017 values
1.5%
10
\$480,000
0%
-\$171,000
25%
\$200,000

### Reserve Balance

Outstanding Sewer bills at FYE17  
Sewer Enterprise debt to Town @ FYE17  
Net Reserves Position

\$	1,065,000
\$	(1,236,000)
\$	(171,000)

		Water and Sewer Rates - Residential/Commercial (\$/unit)					
		Current	2019	2020	2021	2022	2023
Rate Change (%)	Tier	Sewer	0%	0%	0%	0%	0%
Base Quarterly Charge		\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00
Capital Charge		\$0.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00
Water	n/a	n/a	n/a	n/a	n/a	n/q	n/a
Sewer	Tier 1'	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Tier 2	\$5.00	\$8.94	\$8.94	\$8.94	\$8.94	\$8.94

Sewer Enterprise Fund - Projected Rate Performance





# Scenario 3 – Increase Customers Billed for Volume

- Use Reserves to pay FY19 debt service for expansion
- Maintain existing fixed charges
- Reduce included volume from 10HCF to 4HCF/quarter (1,000 gallons per month)
- Increase volumetric rate from \$5/HCF to \$7.97/HCF and increase them annually by 4%
- Throttle up or down each year based on actual flow experience

## Town of Kittery, ME Sewer Budgetary Review

Spring 2018

### Variables

Operations Budgetary Basis  
Start point for Billed Consumption  
Revenue Basis  
Sewer Consumption Growth (annual)  
Included Volume (HCF/quarter)  
Volumetric Revenue Increase  
Tier 2 Premium  
FY17 YE Reserve Funds Balance  
Reserve Funds Target (% of Budget)  
Unexpended FYE18 Budget

Appropriated  
3-yr average  
FY2017 values  
1.5%  
4  
\$440,000  
0%  
-\$171,000  
25%  
\$200,000

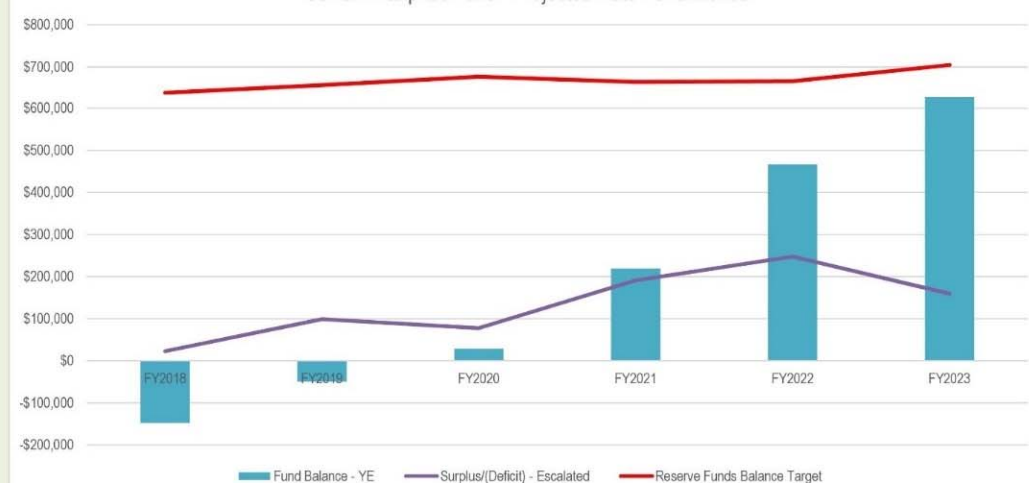
### Reserve Balance

Outstanding Sewer bills at FYE17  
Sewer Enterprise debt to Town @ FYE17  
Net Reserves Position

\$ 1,065,000  
\$ (1,236,000)  
\$ (171,000)

	Water and Sewer Rates - Residential/Commercial (\$/unit)						
	Tier	Current	2019	2020	2021	2022	2023
	Rate Change (%)	Sewer	4%	4%	4%	4%	4%
	Base Quarterly Charge	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00
	Capital Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Water	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sewer	Tier 1`	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Tier 2	\$5.00	\$7.97	\$8.18	\$8.40	\$8.62	\$8.85

Sewer Enterprise Fund - Projected Rate Performance



# Scenario 4 –All Customers Billed for Volume

- Use Reserves to pay FY19 debt service for expansion
- Maintain current fixed charges
- Increase volumetric rate by 10% next two years and then by 2% annually through FY23
- Eliminate all included volumes in fixed charge
- Throttle up or down based on actual flow experience
- Of the options, this is most likely to depress consumption from users

## Town of Kittery, ME Sewer Budgetary Review Spring 2018

### Variables

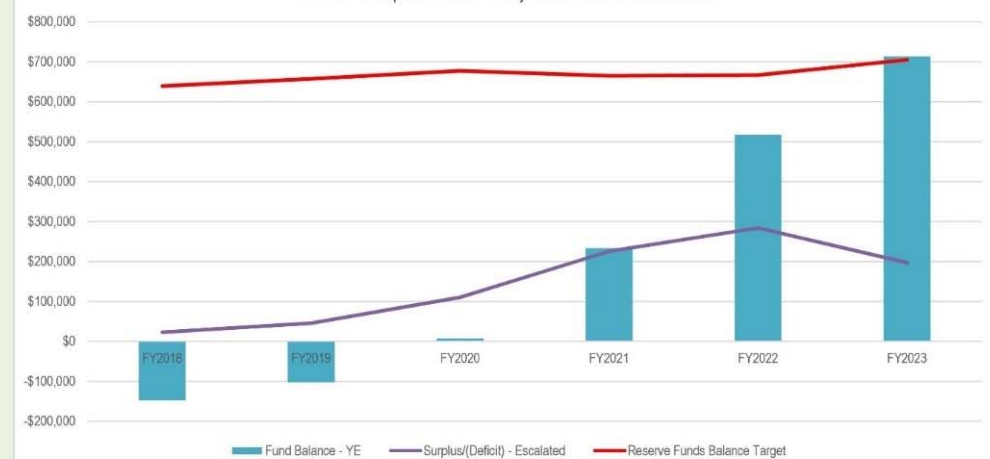
Operations Budgetary Basis	Appropriated
Start point for Billed Consumption	3-yr average
Revenue Basis	FY2017 values
Sewer Consumption Growth (annual)	1.5%
Included Volume (HCF/quarter)	0
Volumetric Revenue Increase	\$0
Tier 2 Premium	0%
FY17 YE Reserve Funds Balance	-\$171,000
Reserve Funds Target (% of Budget)	25%
Unexpended FYE18 Budget	\$200,000

### Reserve Balance

Outstanding Sewer bills at FYE17	\$ 1,065,000
Sewer Enterprise debt to Town @ FYE17	\$ (1,236,000)
Net Reserves Position	\$ (171,000)

		Water and Sewer Rates - Residential/Commercial (\$/unit)					
	Tier	Current	2019	2020	2021	2022	2023
Rate Change (%)			10%	10%	2%	2%	2%
Base Quarterly Charge		\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00
Capital Charge		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Water	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sewer	Tier 1'	\$0.00	\$5.50	\$6.05	\$6.17	\$6.29	\$6.42
	Tier 2	\$5.00	\$5.50	\$6.05	\$6.17	\$6.29	\$6.42

Sewer Enterprise Fund - Projected Rate Performance






# Recommendations - Management

- Pursue changes in contractual fee for service agreements (PNSY and Eliot)
  - Use budget values rather than actual in bill calculation
  - Charge reserve allocation through operating budget and include in bills
- Modify handling of one time (connection and capacity) charges
  - Currently used to fund annual capital expenses
  - Suspend this practice temporarily; once overall reserve goals are met, resume using amount in excess of goals to fund capital expenses
- Consolidate various reserve funds
  - Too many funds with different expenditure guidelines; simplify
- Use reserves to offset debt service obligation (only recommended in concert with rate recommendations)
  - Will lessen rate change impacts and help begin reimbursing General Fund

# Recommendations - Rates

- **Scenario 2 (Recommended)**

- Establishes a flat rate capital charge to support planned future capital needs
- Increases volumetric rates for those using over 10 HCF
- Stable increase for average residential users, supports charging capital to contractual customers
- Has predictable long-term revenue outcomes, not reliant on variable flows
- Costs
  - Of 8,500 bills issued in FY17, ~3,700 were minimum only 40 HCF/yr
  - In FY17, average residential use was 66 HCF/yr
  - Average Bills under Scenario 2



Customer	Sewer Usage (HCF/yr)	Annual Charges	Proposed Annual Charges	Difference
Average Residential	66	\$430	\$732.44	\$302.44



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Questions?