



## **Capital Improvement Projects & Proposed Sewer Rate Increases**

**February 2018**

## Community Outreach Channels - Effectiveness Polling

- Brochure or Postcard Mailing
- City or Clean Water Program Website & Events Calendar
- Press Release & Articles
- Social Media
  - *Nextdoor, Facebook, Twitter*
- Email

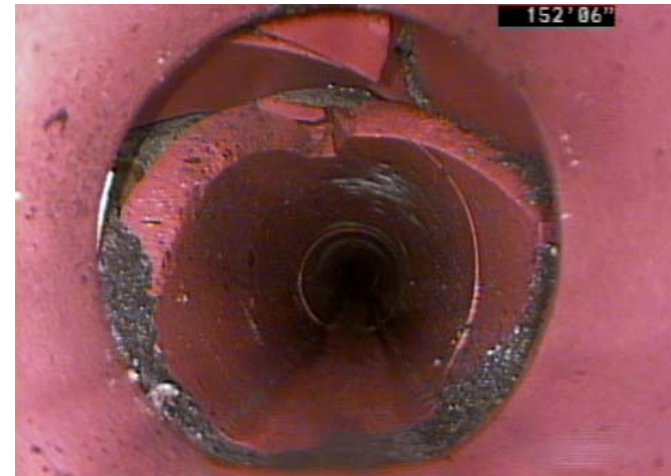


## Agenda

- Welcome
- Need for Sewer Improvements
- Rate Adjustment Proposal
- Questions & Feedback
- Adjourn to Open House



# Aging WWTP & Collection System Facilities



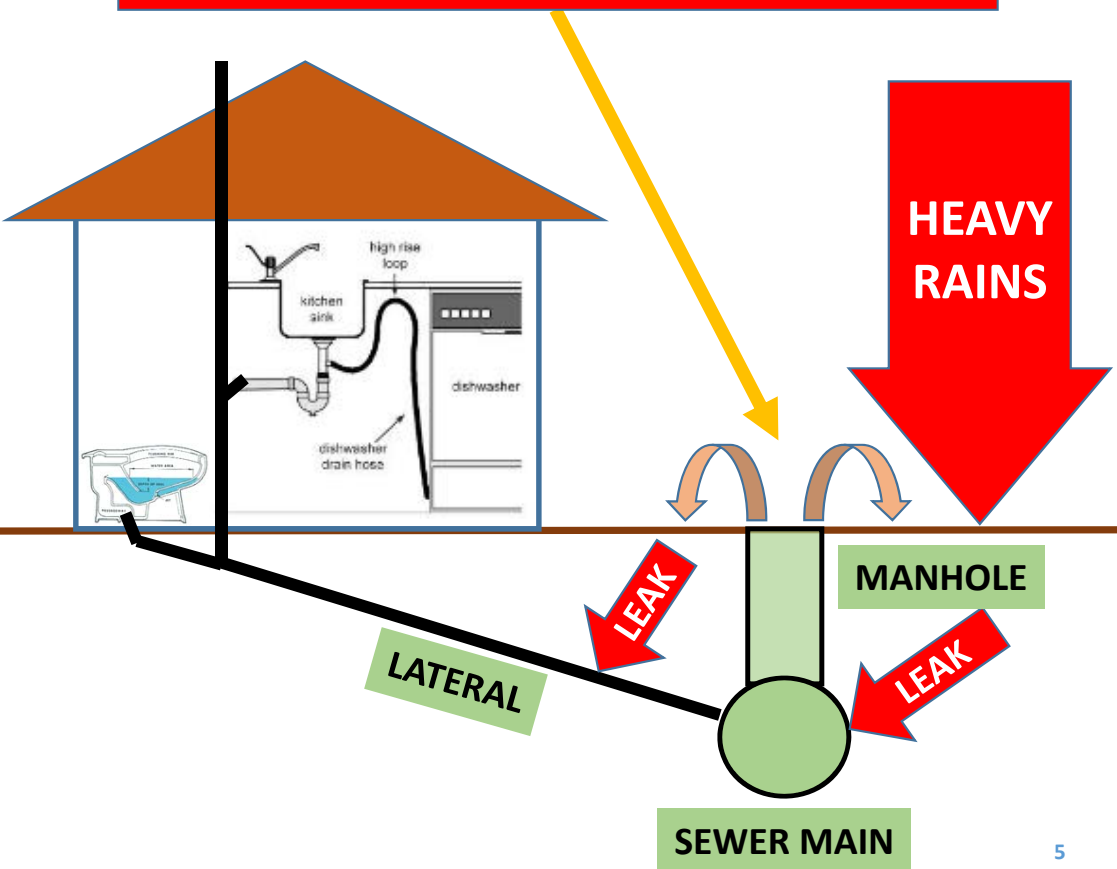
*Inside of Failed & Cracked Pipe*



*Root Intrusion  
into Pipe*

# Peak Wet Weather Conditions & Insufficient Capacity

## Sanitary Sewer Overflow (SSO)

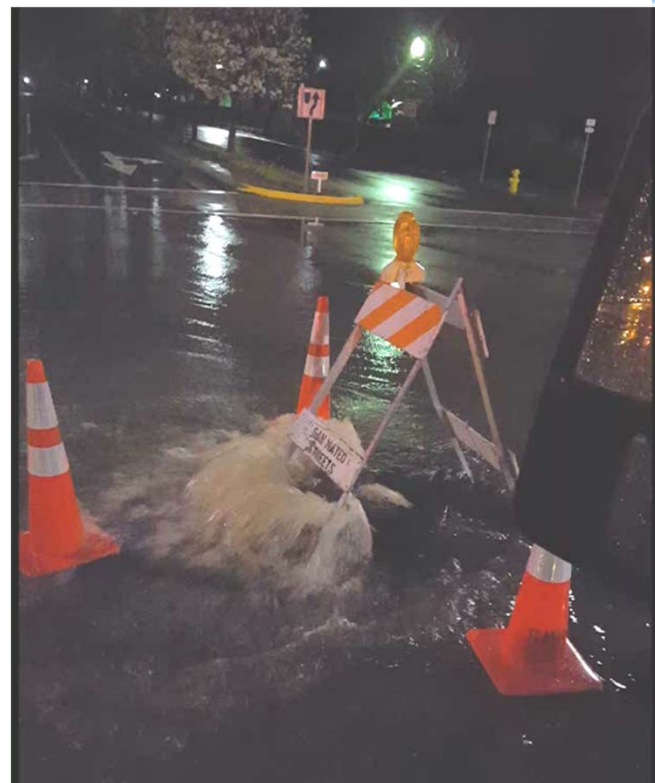


## What Causes Sewer Overflows?

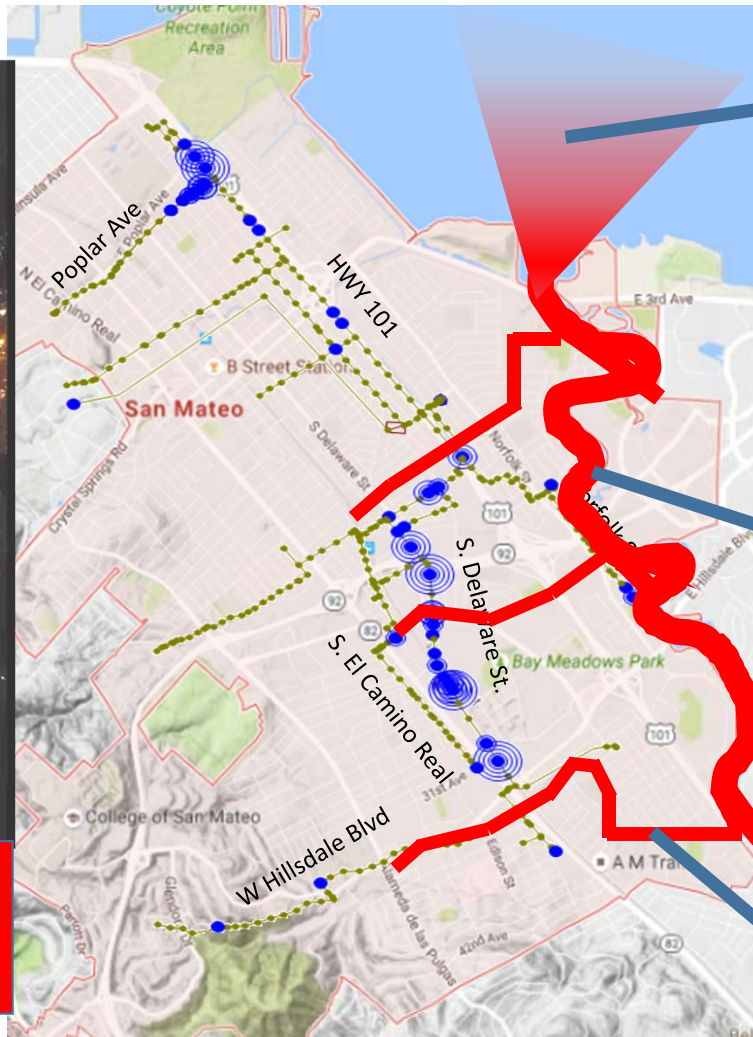
*System w/ Capacity Constraints;  
Sewage, PLUS unintended  
Rain Water Entering the System*



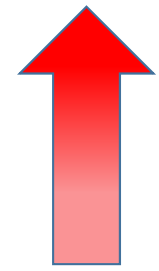
# Sewer Overflow Impacts & Regulatory Violations



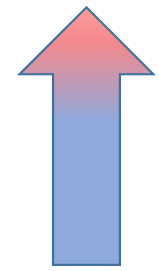
**Sanitary Sewer Overflow (SSO)**



**SF BAY**



**LAGOON & BEACHES**



**CREEKS**

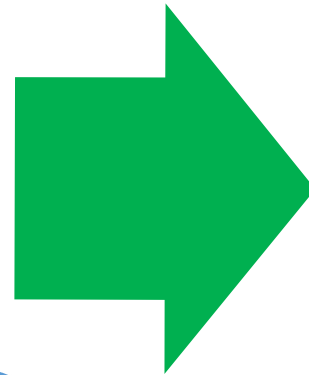


## Comprehensive Approach

Inflow/Infiltration  
(I/I) Reduction &  
System Rehabilitation



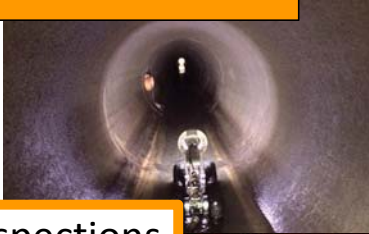
Capacity & Flow  
Management  
Improvements



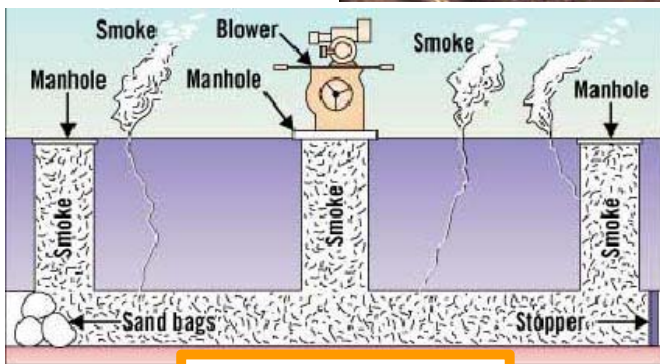
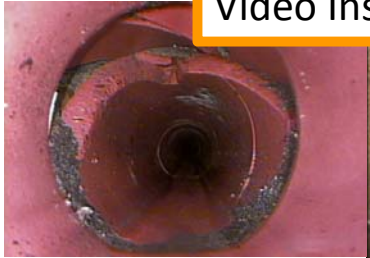
Clean Water Program  
Comprehensive  
Approach

# I/I Reduction and System Rehabilitation

## Pipe Condition Assessments



## Video Inspections



## Smoke Testing



## Pipe Replacement

## Pipe Repair & Rehabilitation



## Pipe Spot Repairs



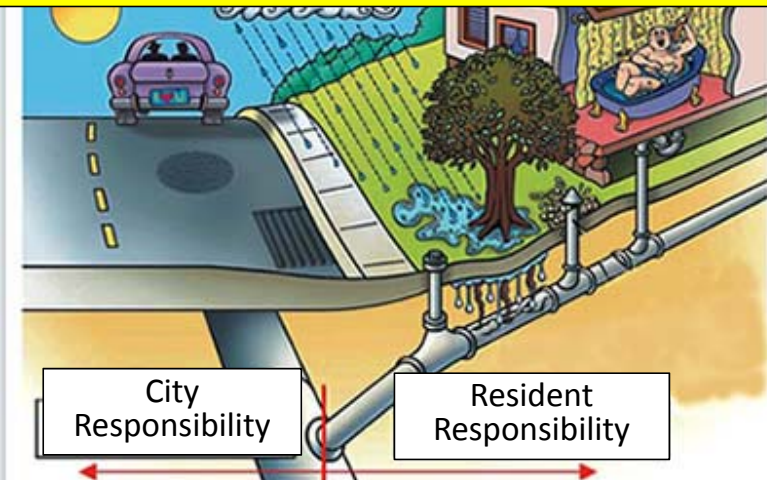
## Pipe Lining

## Root Foaming



## Fat, Oils, Grease Reduction

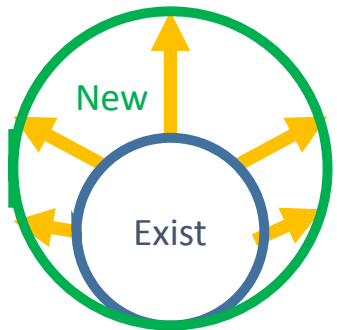
## Private Sewer Lateral Replacement Program



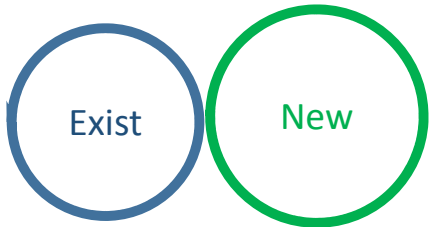
## Consideration of Point of Sale Lateral Ordinance

# Capacity & Flow Management Improvements

## Pipe Improvements



Increase Pipe Diameter

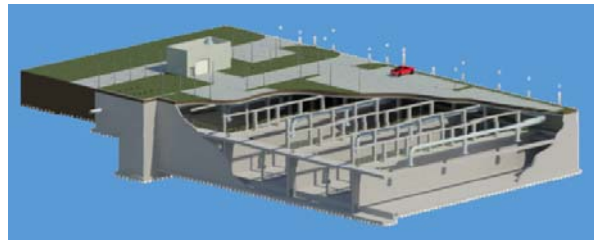


New Parallel "Relief" Pipe

## Optimize Pump Stations



## Underground In-System Storage Facility



Air Tight Vaults



Self Cleaning Tipping Buckets

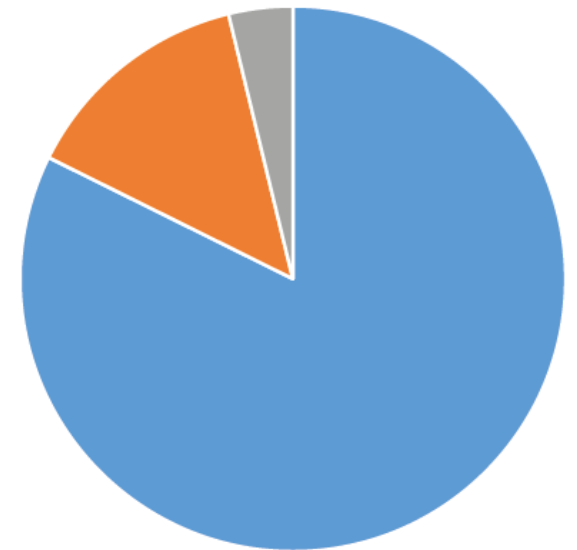
## Wastewater Treatment Plant Upgrade



**CLEANWATERPROGRAM**  
PROTECTING THE BAY FOR A SUSTAINABLE FUTURE



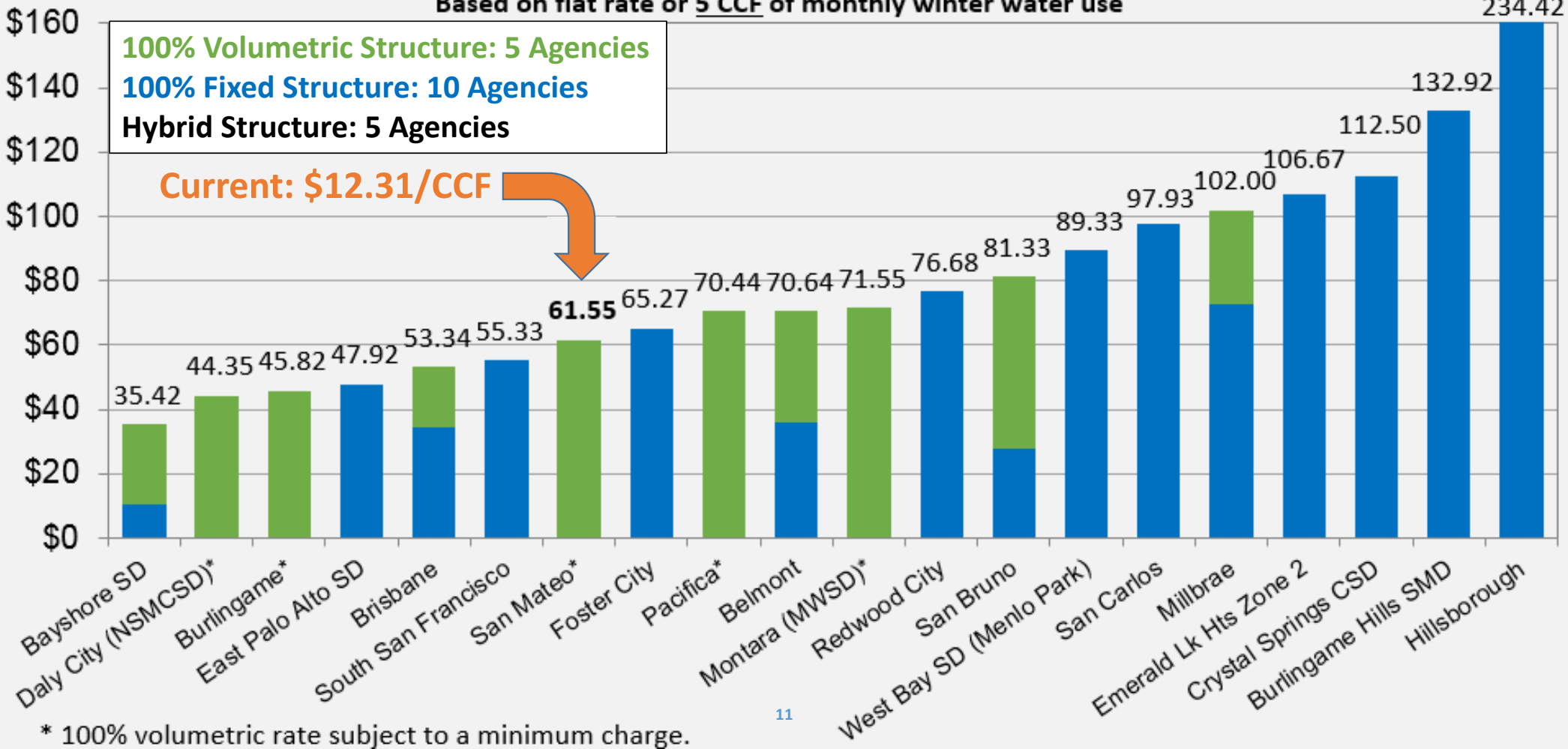
## Funding from Sewer Use Bills



# San Mateo County Survey

## Single Family Residential Monthly Sewer Bills 2017/18

Based on flat rate or 5 CCF of monthly winter water use



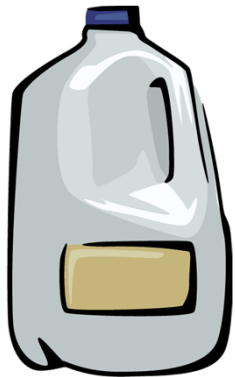
\* 100% volumetric rate subject to a minimum charge.

# What is a CCF?

1 CCF = 100 cubic feet

100 cubic feet = 748 gallons

Average 5.0 CCF = 3,740 gallons



1 Gallon

## FY 17/18 Rate & Conversion

\$12.31 / CCF

= ?????????? per Gallon



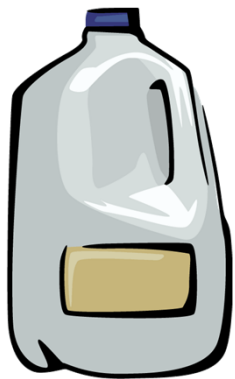
748  
Gallons

## What is a CCF?

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### FY 17/18 Rate & Conversion

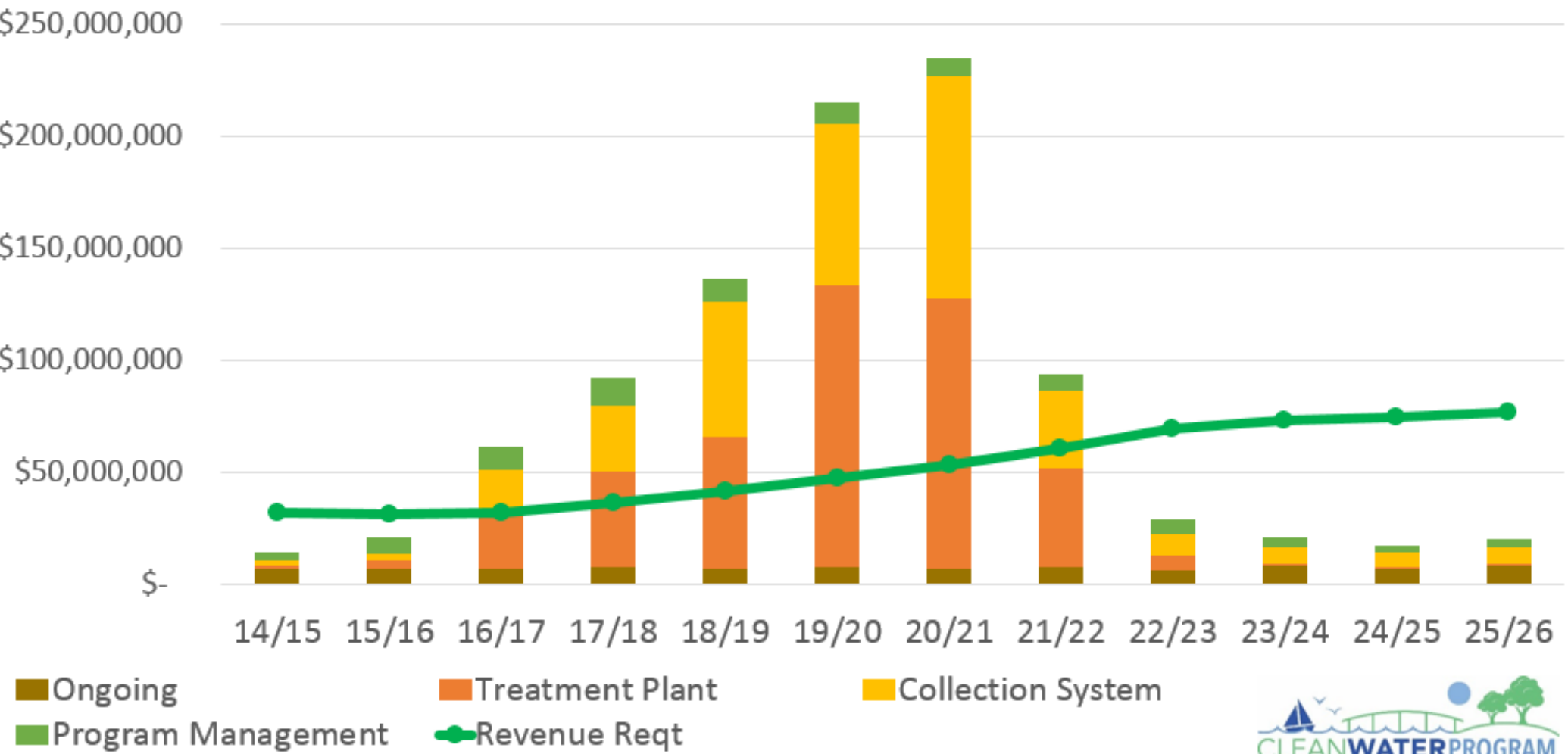
\$12.31 / CCF

= \$0.01646 per Gallon



748  
Gallons

# Estimated Program Expenditures

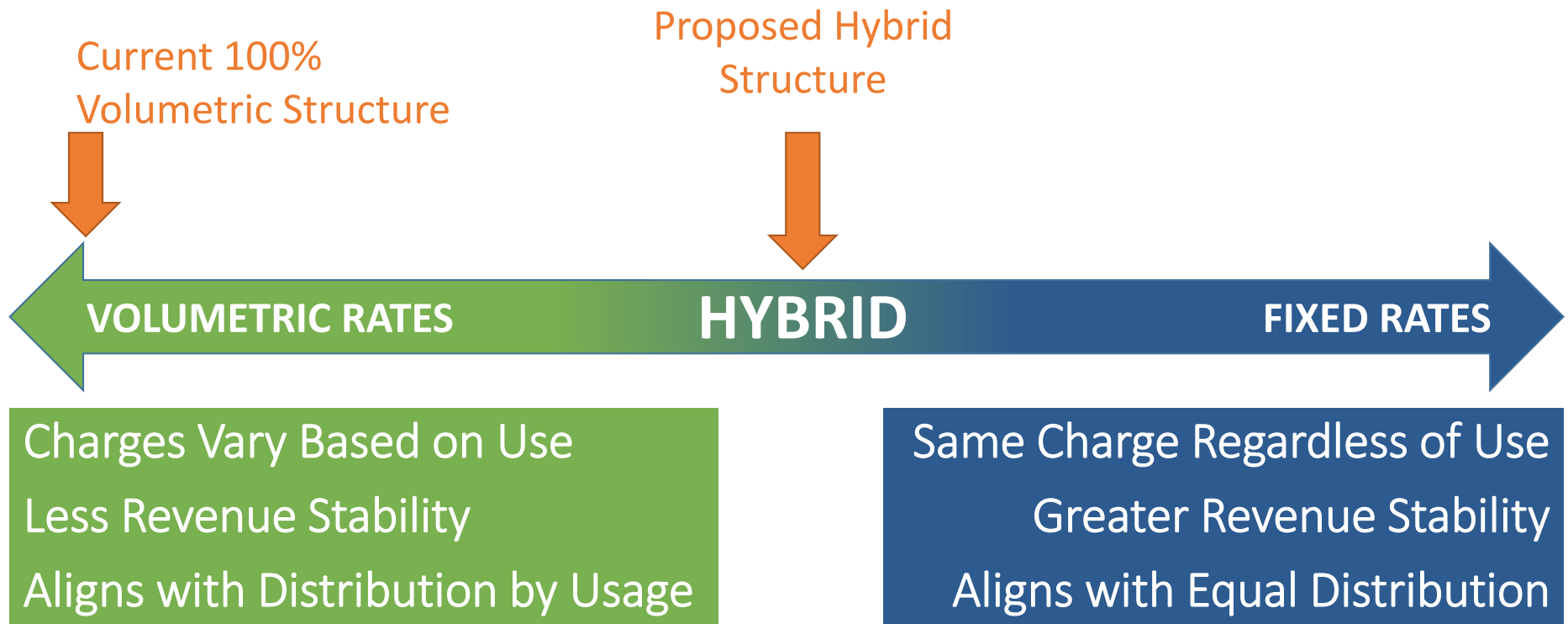


# Rate Restructure & Multi-Year Rate Increase

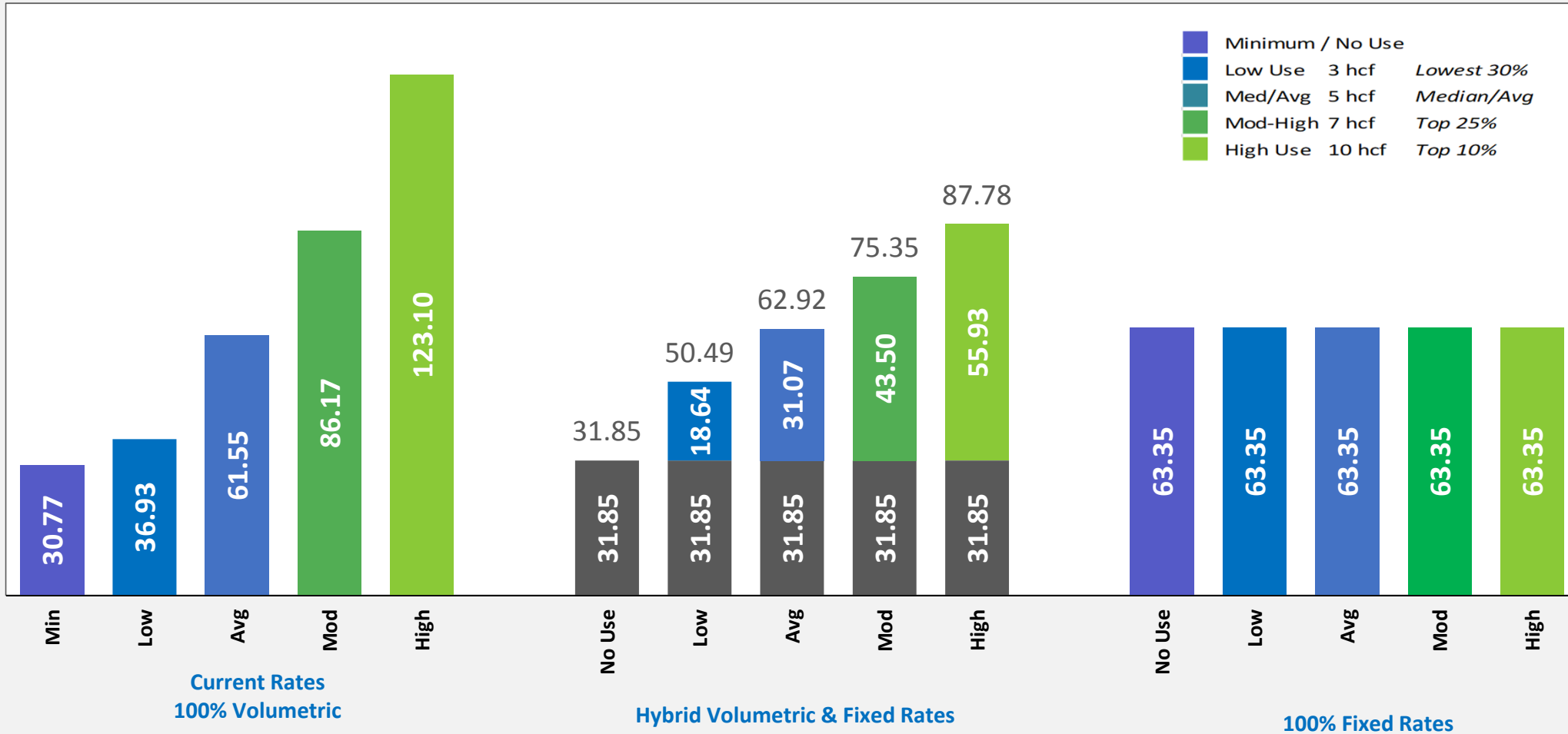
## Previous 2017 Outreach Efforts



# Hybrid Residential Rate Restructure



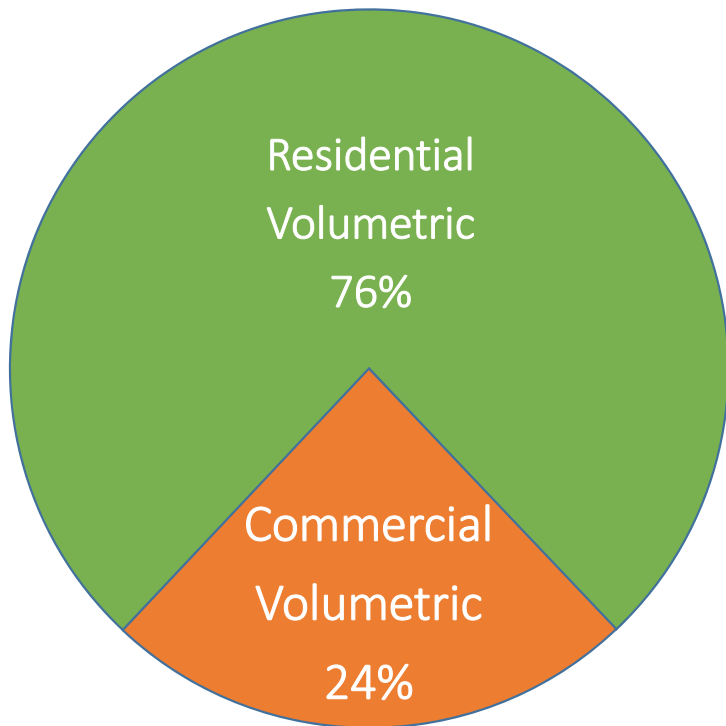
## Example Rate Structure Comparison of Monthly Residential Sewer Service Charges Using FY 2017-18 Rates



# Hybrid Rate Structure Revenue Recovery

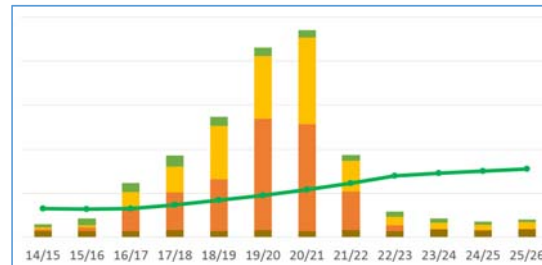
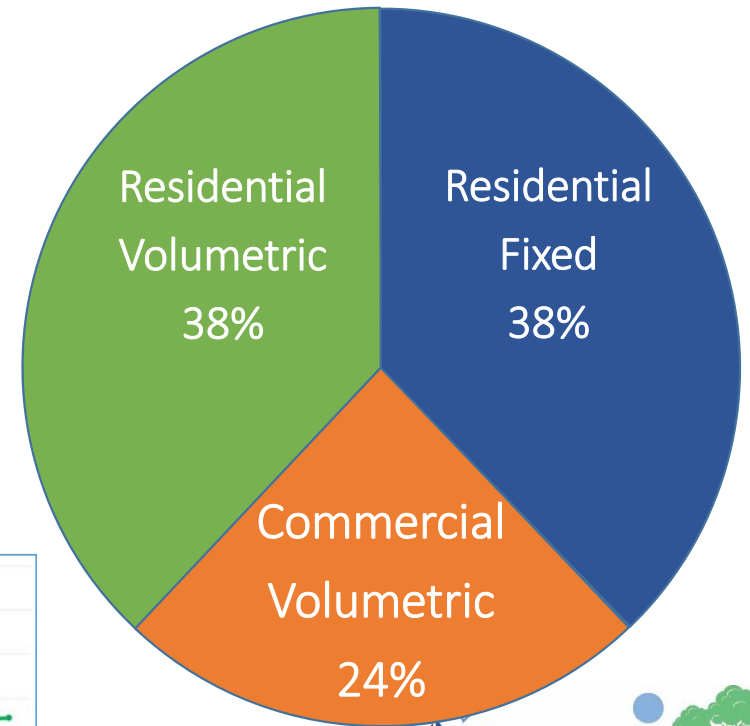
## Current Rate Structure

% of Total Sewer Rate Revenues



## Hybrid Rate Structure

% of Total Sewer Rate Revenues



## Example Residential Sewer Charge Calculation Using Proposed FY 2018-19 Rates

Example for typical residential dwelling unit with 5 CCF average winter water use:

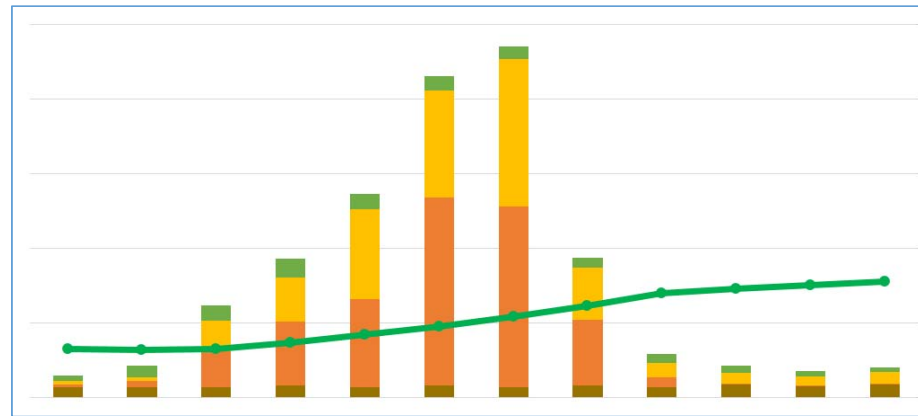
Winter Water Use (CCF)	Nov	Dec	Jan	Feb	Mar	Average
	5	6	4	4	6	5.0

Example charge calculation using usage data from above table:

Fixed Monthly Charge	Volumetric Usage Charge	Total Monthly Charge
\$36.59	$(\text{Rate}) \times (\text{Usage}) = \text{Charge}$ $\$7.15 \times 5.0 \text{ CCF} = \$35.75$	$\text{Fixed Charge} + \text{Usage Charge} = \text{Total}$ $\$36.59 + \$35.75 = \$72.34$

## Multi-Year Rate Increases

- Phase rate impacts over multiple years
- Plan ahead to ensure sufficient revenue (green line) to repay debt
- Needed for borrowing money (both bonding and SRF loans)



## Residential Sewer Rates

### Proposed 5-Year Rates for FY 2018-2019 to FY 2022-2023

RESIDENTIAL RATE CHARGE TYPES	Current 2017-18 Rates	Effective July 1 <sup>st</sup> of Each Year				
		Year 1 2018-19	Year 2 2019-20	Year 3 2020-21	Year 4 2021-22	Year 5 2022-23
<b>Fixed Monthly Charge</b> <i>per dwelling unit</i>	n/a	\$36.59	\$41.80	\$47.34	\$53.59	\$60.14
<b>Volumetric Usage Charge Rate*</b> <i>Class A – Residential</i>	\$12.31	\$7.15	\$8.18	\$9.27	\$10.51	\$11.80

\*Rate per hundred cubic feet (\$/CCF) of annualized average monthly winter water use

# Commercial Sewer Rates

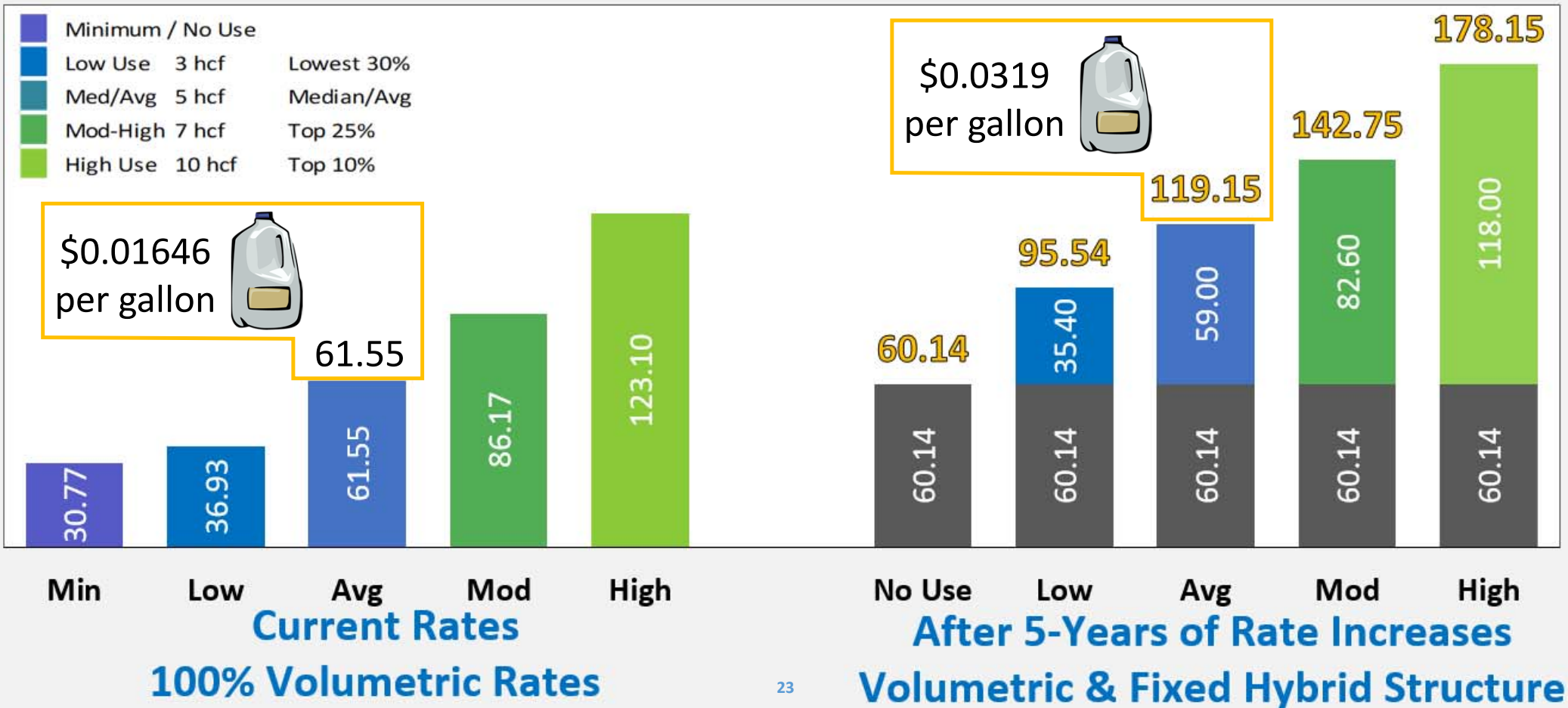
## Proposed 5-Year Rates for FY 2018-2019 to FY 2022-2023

COMMERCIAL RATE CLASSIFICATIONS & CHARGE TYPES	Current 2017-18 Rates	Effective July 1 <sup>st</sup> of Each Year				
		Year 1 2018-19	Year 2 2019-20	Year 3 2020-21	Year 4 2021-22	Year 5 2022-23
<u>Volumetric Usage Charge Rate*</u>						
Class B - Standard Strength	\$12.31	\$14.19	\$16.26	\$18.47	\$20.97	\$23.60
Class C - Moderate Strength	18.20	20.48	22.92	25.43	28.20	31.00
Class D - High Strength	27.57	30.35	33.22	36.04	39.09	42.04
Class E - A limited number of accounts are billed on a case-by-case basis based on sewer rates in effect.						
<b>Minimum Monthly Charge</b>	\$30.77	\$36.59	\$41.80	\$47.34	\$53.59	\$60.14
Commercial bills are subject to the minimum monthly charge.						

\*per hundred cubic feet (\$/CCF) of annualized average monthly winter water use

# Hybrid Rate Structure with 5-Year Proposed Increases

## Monthly Residential Sewer Service Charges

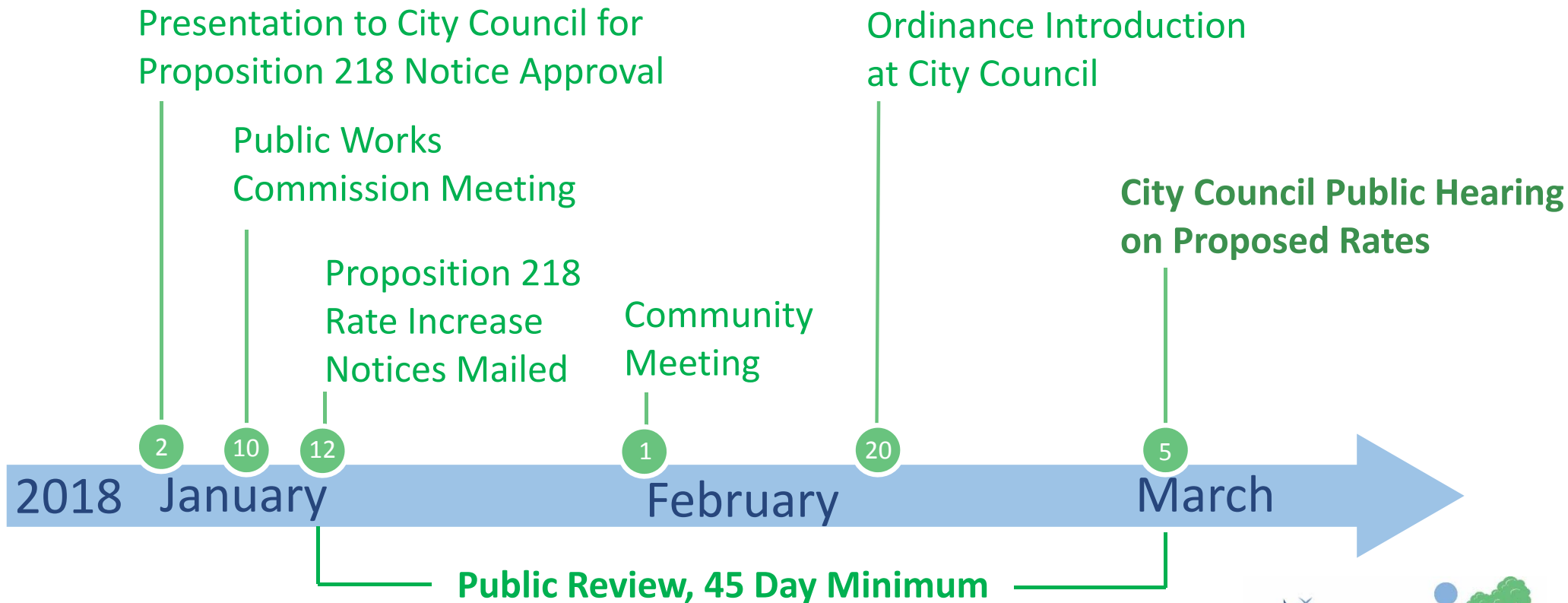


## What Happens if We Don't Construct Improvements?



- Reduced reliability of wastewater system
- Continued environmental and community health risks due to Sanitary Sewer Overflows
- Violate regulations, causing possible fines
- Deferred cost = increased cost

# Next Steps for Proposed Rate Restructure and Increase



# Methods to Stay Informed & Provide Input

Sign Up for Email Updates

[info@cleanwaterprogramsanmateo.org](mailto:info@cleanwaterprogramsanmateo.org)

Register for Private Neighborhood Updates

[www.NextDoor.com](http://www.NextDoor.com)

Contact Us

[www.CleanWaterProgramSanMateo.org](http://www.CleanWaterProgramSanMateo.org)

650-727-6870



# Questions & Feedback



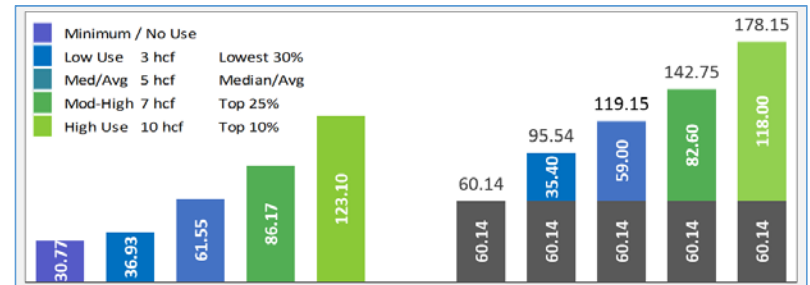
[www.cleanwaterprogramsanteo.org](http://www.cleanwaterprogramsanteo.org)

# Open House Stations for Additional Information

## General Information



## Sewer Rates



## Collection System



## Wastewater Treatment Plant



## Example Residential Sewer Charge Calculation Using Current FY 2017-18 Rate & Structure

Example for typical residential dwelling unit with 5 CCF average winter water use:

Winter Water Use (CCF)	Nov	Dec	Jan	Feb	Mar	Average
	5	6	4	4	6	5.0

Example charge calculation using usage data from above table:

### Volumetric Usage Charge

$$\text{(Rate)} \times \text{(Usage)} = \text{Charge}$$

$$\text{\$12.31} \times \text{5.0 CCF} = \text{\$61.55}$$

### Total Monthly Charge

$$\text{Usage Charge} = \text{Total}$$

$$\text{\$61.55} = \text{\$61.55}$$

- Rate calculated based on estimated revenue needs
- Commercial rates vary based on wastewater strength

## Example Commercial Sewer Charge Calculation Using Proposed FY 2018-19 Rates

Example for Class B – Standard Strength commercial customer with 10 CCF average monthly winter water use:

Winter Water Use (CCF)	Nov	Dec	Jan	Feb	Mar	Average
	12	9	10	11	8	10.0

Example charge calculation using usage data from above table:

Volumetric Usage Charge	Total Monthly Charge
$(\text{Rate}) \times (\text{Usage}) = \text{Charge}$ $\$14.19 \times 10.0 \text{ CCF} = \$141.90$	$\text{Usage Charge} = \text{Total}$ $\$141.90 = \$141.90$