



# Water and Wastewater *Community Meeting* Rate Study *October 24th, 2022*



BARTLE WELLS ASSOCIATES  
INDEPENDENT PUBLIC FINANCE ADVISORS

# Presentation Overview

- Review current water and wastewater rates, current state of each enterprise
- Outline projected costs
- Address proposed rate increases
- Address proposed structure changes
  - *Meet Proposition 218 requirements*
  - *Ensure customer equitability*
- Rate Adoption Timeline



# Water System Overview



- Water system is a self-supporting enterprise
  - *Revenues must be sufficient to cover operating expenses*
- Water is purchased from the Veterans Home
  - *The cost of water is increasing*
- The water enterprise currently holds no debt
- 5-Year Capital Improvement Plan ~\$6 Million
- 2021/22 Ending Fund Balance
  - *Operating Reserves: \$435,000*
  - *Capital Reserves: \$497,000*
  - *Restricted Drought Water Reserve Bank: \$984,000*
- Rates were last increased January 2022



# Current Water Rates

## Fixed Charges

### Monthly Fixed Charges

- *Meter Service Charge*
  - Varies by meter size
  - 70% Surcharge Outside Town
- *System Replacement Fee*
  - Recovers a portion of capital expenses
  - 70% Surcharge Outside Town

<b>Meter Size</b>	<b>Current Meter Service Charge</b>	
	<b>\$/Meter Inside Town</b>	<b>\$/Meter Outside Town</b>
3/4"	\$55.15	\$93.75
1"	\$93.76	\$159.39
1-1/2"	\$182.02	\$309.44
2"	\$292.35	\$496.99
3"	\$551.60	\$937.71
4"	\$921.17	\$1,565.99
6"	\$1,836.82	\$3,122.60
8"	\$2,940.03	\$4,998.05

<b>Meter Size</b>	<b>Current Water System Replacement Fee</b>	
	<b>\$/Meter Inside Town</b>	<b>\$/Meter Outside Town</b>
3/4"	\$8.78	\$14.93
1"	\$14.94	\$25.39
1.5"	\$28.99	\$49.28
2"	\$46.55	\$79.14
3"	\$87.84	\$149.33
4"	\$146.71	\$249.40
6"	\$292.53	\$497.30
8"	\$468.21	\$795.96





# Current Water Rates Usage Charges

## - Monthly Usage Charges

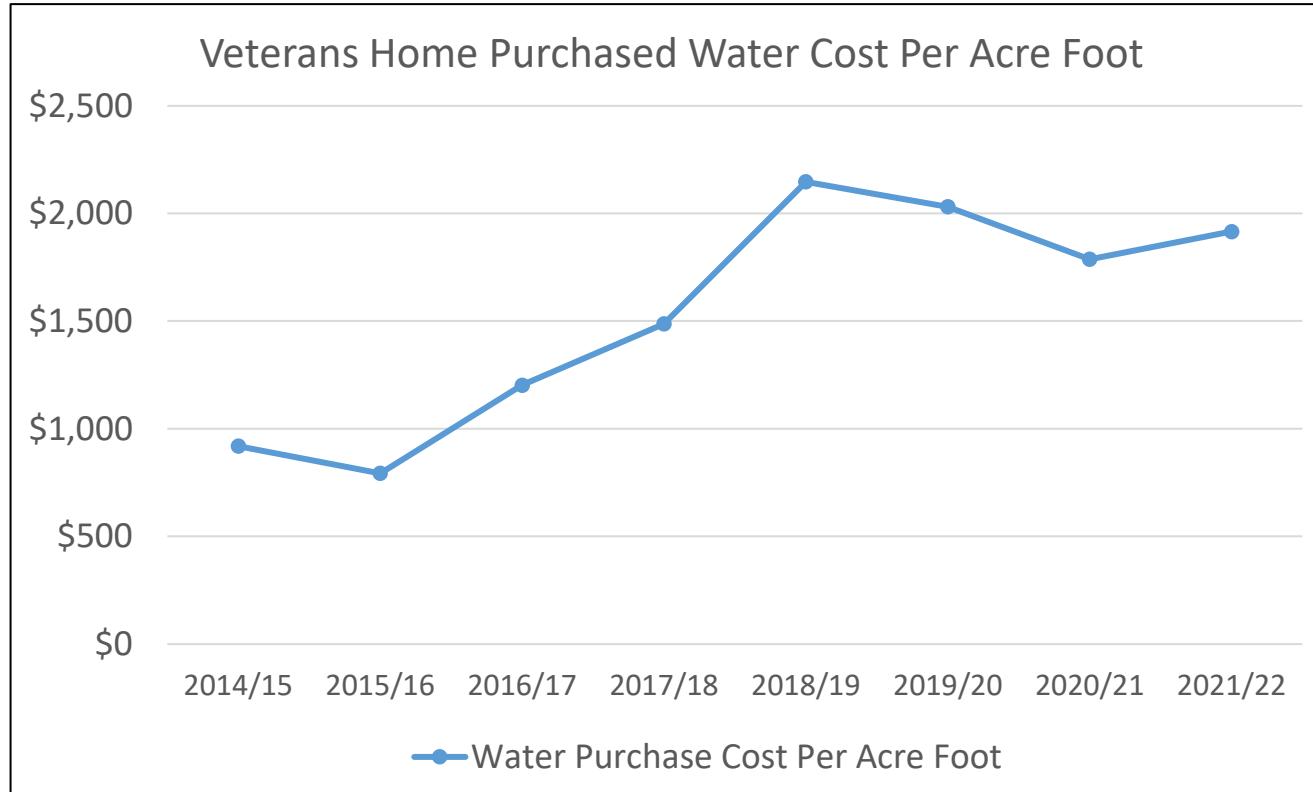
- *Single Family Residential Users – 2 Tier Structure*
- *All Other Users – Flat Rate per 1000 gallons*

Current Usage Charge		
User Class	Usage Tier	\$/1000 gallons
Single Family		
Tier 1	0-4,000 gallons	\$4.15
Tier 2	5,000+ gallons	\$4.76
Multi Family	All Use	\$4.62
Non-Residential	All Use	\$4.62





# The Cost of Water is Increasing



*The Town purchases water from the Veterans Home  
Prices can be volatile and are steadily increasing  
Costs increased at an 11% average annual growth rate since  
2014/15*





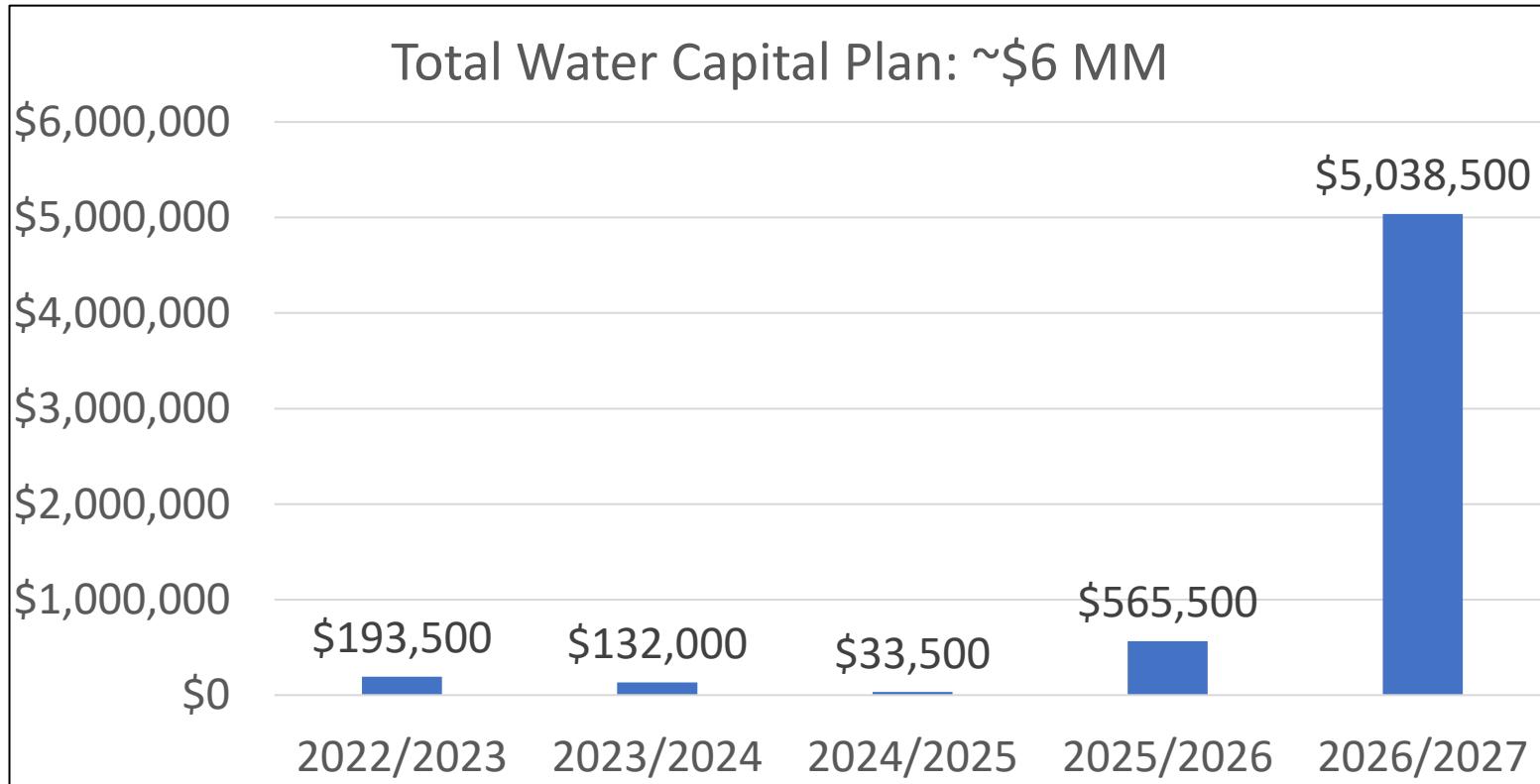
# 2022/23 Water Operations Budget

- Total: \$1.6 million excluding depreciation
- Largest Expense: Water Purchases
  - 97% Veterans Home
  - 3% City of Napa emergency supply
- Conservation Program
  - \$50,000 (*portion of personnel, supplies*)
  - *Can be used to cost-justify second tier*
- VH purchase cost estimated to increase 10% per year.
- Total expenses projected to increase an average of 7.6% per year.





# Five-Year Water Capital Plan



*Town is pursuing grants and low interest loans for ~\$5 MM*





# Proposed Water Rate Increase

- Proposed increases are sufficient to cover all capital projects and maintain adequate reserves
- BWA recommends increasing the System Replacement Fee in Year 1 to adequately cover capital expenditures without the need to transfer operating reserve funds.
  - *Overall Rate Increase (excluding the system replacement fee)*

<u>1/1/2023</u>	<u>1/1/2024</u>	<u>1/1/2025</u>	<u>1/1/2026</u>	<u>1/1/2027</u>
11%	11%	11%	11%	11%

- *Increases the system replacement fee in Year 1 by a fixed \$ amount and 11% each year over the next 4 years.*
- *All other rates would increase 11% each year over 5 years.*





# Proposed Monthly Fixed Rates\*

Effective Date	Current	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
<b>Monthly Fixed Charges**</b>						
Meter Size	Current	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
3/4"	\$55.15	\$61.22	\$67.95	\$75.43	\$83.73	\$92.94
1"	\$93.76	\$104.07	\$115.52	\$128.23	\$142.33	\$157.99
1-1/2"	\$182.02	\$202.02	\$224.25	\$248.91	\$276.29	\$306.69
2"	\$292.35	\$324.46	\$360.15	\$399.77	\$443.75	\$492.56
3"	\$551.60	\$612.20	\$679.54	\$754.29	\$837.26	\$929.36
4"	\$921.17	\$1,022.37	\$1,134.83	\$1,259.66	\$1,398.22	\$1,552.02
6"	\$1,836.82	\$2,038.61	\$2,262.86	\$2,511.77	\$2,788.07	\$3,094.75
8"	\$2,940.03	\$3,263.00	\$3,621.93	\$4,020.34	\$4,462.58	\$4,953.47

*\*\*Private fire meters pay 20% of the monthly fixed charge*

Monthly Water System Replacement Fee	Current	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
Meter Size	Current	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
3/4"	\$8.78	\$14.36	\$15.94	\$17.70	\$19.64	\$21.80
1"	\$14.94	\$24.41	\$27.10	\$30.08	\$33.39	\$37.06
1-1/2"	\$28.99	\$47.39	\$52.61	\$58.39	\$64.82	\$71.95
2"	\$46.55	\$76.12	\$84.49	\$93.78	\$104.10	\$115.55
3"	\$87.84	\$143.62	\$159.42	\$176.95	\$196.42	\$218.02
4"	\$146.71	\$239.84	\$266.22	\$295.51	\$328.01	\$364.10
6"	\$292.53	\$478.25	\$530.85	\$589.25	\$654.06	\$726.01
8"	\$468.21	\$765.48	\$849.68	\$943.15	\$1,046.90	\$1,162.05

*\*Customers outside of town subject to a 70% surcharge*



# Proposed Volumetric Rates

Customer Class	Current	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
<b>Single Family Use</b>						
Tier 1 (0-4 1,000 gallons)	\$4.15	\$4.64	\$5.16	\$5.72	\$6.35	\$7.05
Tier 2 (5+ 1,000 gallons)*	\$4.76	\$5.51	\$6.02	\$6.59	\$7.22	\$7.92
<b>All Other Use**</b>	\$4.62	\$5.01	\$5.52	\$6.08	\$6.71	\$7.41

\*Proposed rates include a ~\$0.86 tier 2 conservation charge per unit

\*\*Proposed rates include a ~\$0.36 conservation charge per unit

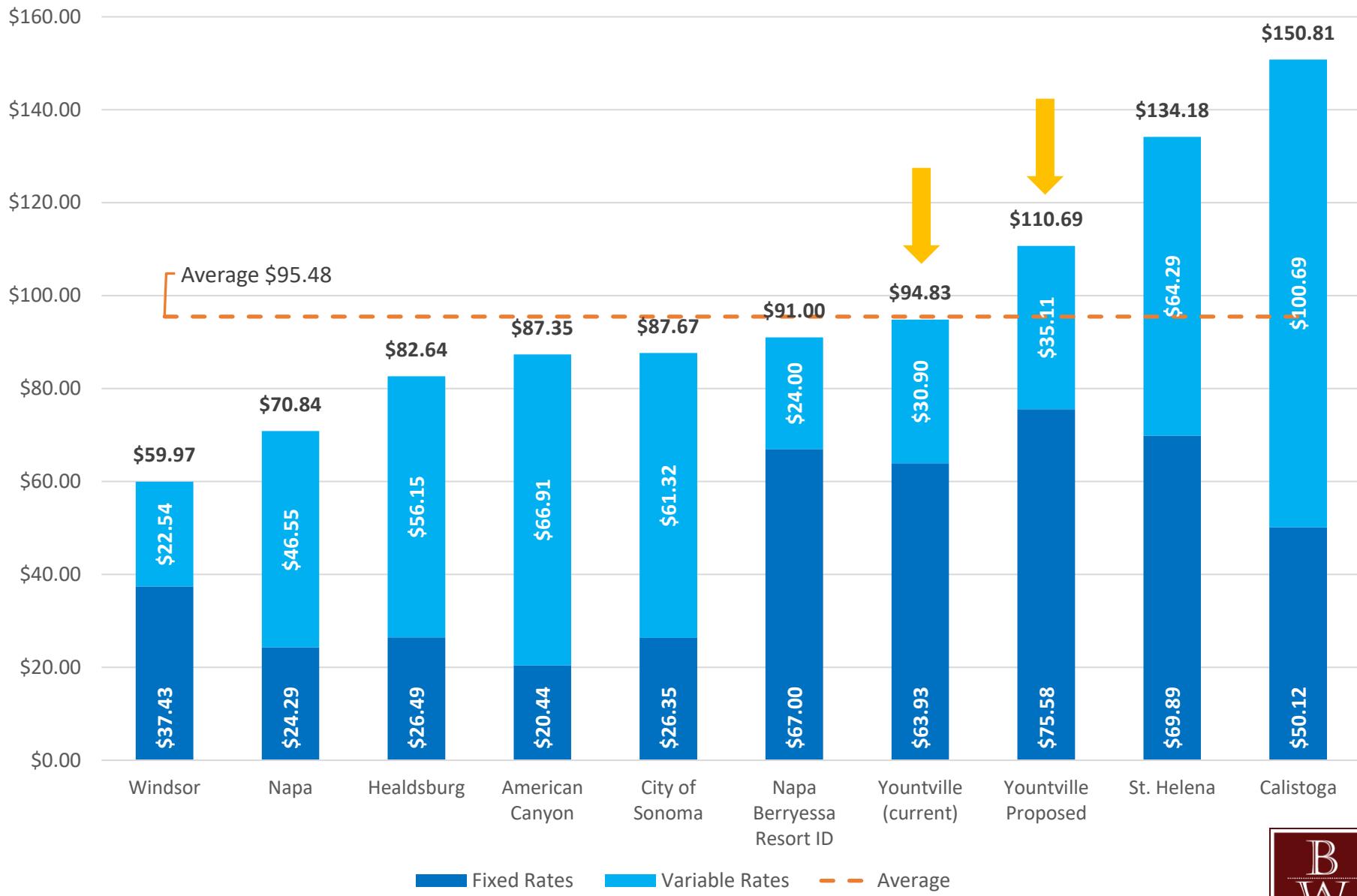


# Proposed Bill Impacts

## Monthly Bill Impact for Single Family Customers Within Town

Single Family Bill Impact	1,000 gallons usage	Current	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
Low User	4	\$80.54	\$94.16	\$104.52	\$116.01	\$128.78	\$142.94
\$ Increase			\$13.61	\$10.36	\$11.50	\$12.76	\$14.17
Average User	7	\$94.83	\$110.69	\$122.58	\$135.78	\$150.43	\$166.69
\$ Increase			\$15.86	\$11.89	\$13.20	\$14.65	\$16.26
High User	10	\$109.12	\$127.22	\$140.64	\$155.54	\$172.08	\$190.43
\$ Increase			\$18.10	\$13.42	\$14.90	\$16.54	\$18.36

## Single Family Residential Monthly Water Rates as of July 1, 2022 (7,000 gallons)





# October 18<sup>th</sup> Council Action to Potentially Reduce Water Rates

- \$1,650,000 will be setup in a Water and Wastewater Utility Enterprise Capital Project Restricted Fund.
- Water Capital Improvement Fund 60 debt of \$888,668 will be paid off.
- BWA projects 8.5% increases would be required based on this action.
- Water System Replacement Charge would not need to be increased in Year 1 beyond 8.5%.





# Comparison of Bill Impacts – Noticed Versus Reduced Rates

## Monthly Bill Impact for Single Family Customers Within Town (Noticed Rates)

Single Family Bill Impact	1,000 gallons usage	Current	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
Low User	4	\$80.54	\$94.16	\$104.52	\$116.01	\$128.78	\$142.94
\$ Increase			\$13.61	\$10.36	\$11.50	\$12.76	\$14.17
Average User	7	\$94.83	\$110.69	\$122.58	\$135.78	\$150.43	\$166.69
\$ Increase			\$15.86	\$11.89	\$13.20	\$14.65	\$16.26
High User	10	\$109.12	\$127.22	\$140.64	\$155.54	\$172.08	\$190.43
\$ Increase			\$18.10	\$13.42	\$14.90	\$16.54	\$18.36

## Monthly Bill Impact for Single Family Customers Within Town (Reduced Rates - 8.5% Increases)

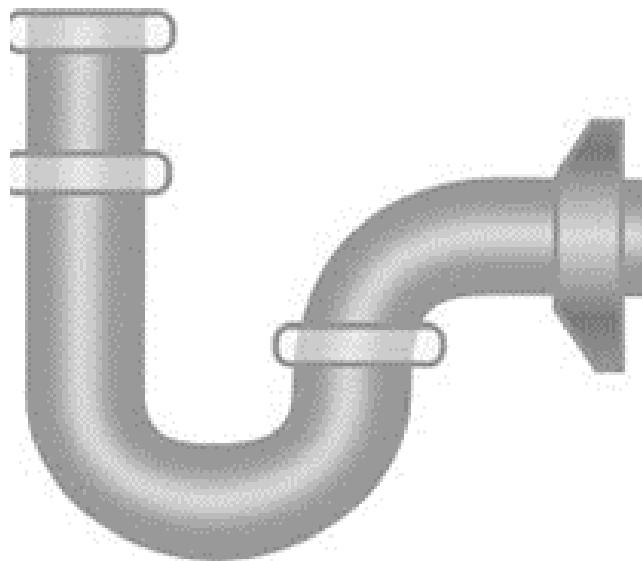
Single Family Bill Impact	1,000 gallons usage	Current	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
Low User	4	\$80.54	\$87.53	\$94.97	\$103.04	\$111.80	\$121.30
\$ Increase			\$6.98	\$7.44	\$8.07	\$8.76	\$9.50
Average User	7	\$94.83	\$103.74	\$112.34	\$121.67	\$131.79	\$142.77
\$ Increase			\$8.91	\$8.60	\$9.33	\$10.12	\$10.98
High User	10	\$109.12	\$119.96	\$129.71	\$140.30	\$151.78	\$164.24
\$ Increase			\$10.84	\$9.76	\$10.58	\$11.48	\$12.46

# Single Family Residential Monthly Water Rates as of July 1, 2022 (7,000 gallons)

## Reduced Water Bills (8.5% Increases)

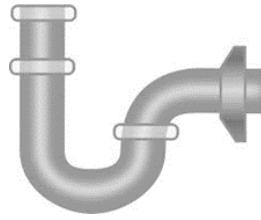


# Wastewater System Overview



- Sewer system is a self-supporting enterprise
  - *Revenues must be sufficient to cover operating expenses*
- Veterans Home contributes revenue based on usage and shared capital costs
- 2021/22 Fund Balance
  - *Operating Fund: \$1.3 MM*
  - *Capital: \$2 MM*
- 5-Year Capital Improvement Plan \$4.1 million
- Rates were last increased January 2022





# Current Wastewater Rates

## Fixed Charges

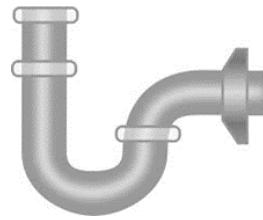
### - Monthly Fixed Charges

- *Residential users – flat rate per dwelling unit*
- *Commercial users – rate based on meter size*

<b>Current Residential Monthly Sewer Service Charge</b>	
<b>Classification</b>	<b>Per Dwelling Unit</b>
Single Family	\$62.07
Multi-Family	\$40.92
Mobile Homes	\$40.92

<b>Current Non-Residential Sewer Rates</b>	
<b>Monthly Sewer Service Charge</b>	
<b>Meter Size</b>	<b>All Non-Res Accounts</b>
3/4"	\$88.22
1"	\$149.98
1.5"	\$291.12
2"	\$467.55
3"	\$882.18
4"	\$1,473.23
6"	\$2,937.65
8"	\$4,702.00



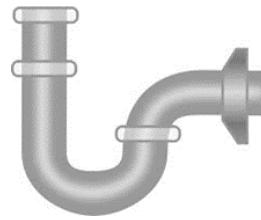
# Current Wastewater Rates Fixed Charges (cont'd)

## - Monthly Fixed Charges

- *System Replacement Fee*
  - flat rate by meter size
    - Recovers a portion of capital expenses

<b>Monthly System Replacement Fee</b>	
<u>Meter Size</u>	<u>Current</u>
3/4"	\$16.92
1"	\$28.76
1.5"	\$55.83
2"	\$89.67
3"	\$169.18
4"	\$282.54
6"	\$563.39
8"	\$901.75





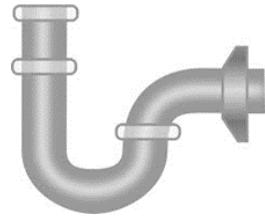
# Current Wastewater Rates

## Usage Charges

- Monthly Usage Charges  
Non Residential Accounts  
Only
  - *Low Strength: Church, Schools, Group Homes, Town Use, Office, Barber Shop*
  - *Medium Strength: Hotels/Inns, Multi-Commercial*
  - *High Strength: Restaurants, Tasting Rooms*

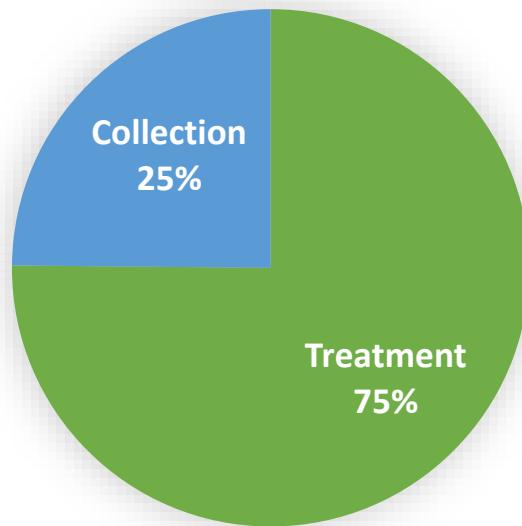
<b>Volumetric Strength Charges</b>	
<u>Non-Residential Customer Class</u>	<u>\$/kgal</u>
Low Strength	\$5.02
Medium Strength	\$7.08
High Strength	\$18.41

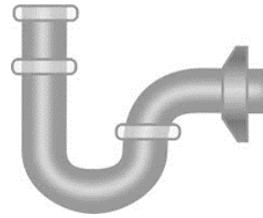




# 2022/23 Sewer Operations Budget

- Total: \$1.9 million  
excluding  
depreciation/transfers
- Largest Expense: Sewer  
Treatment
- Expenses projected to  
increase an average of  
4.8% per year



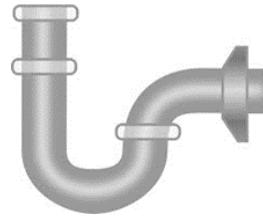


# 5-Year Wastewater Capital Plan



*Town is pursuing low interest loans for ~\$803,000*



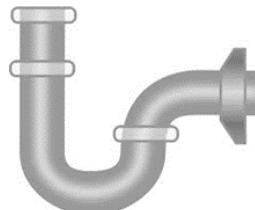


# Proposed Wastewater Rate Increases

- Proposed increases are sufficient to cover all capital projects, meet debt service coverage requirements and maintain adequate reserves

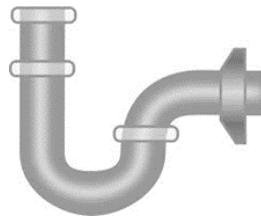
<u>1/1/2023</u>	<u>1/1/2024</u>	<u>1/1/2025</u>	<u>1/1/2026</u>	<u>1/1/2027</u>
5.4%	5.4%	5.4%	5.9%	5.9%





# Proposed Wastewater Fixed Rates

Effective Date	Current	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
<b>Residential Sewer Rates - Fixed by Account</b>						
<b>Monthly Sewer Service Charge (\$/unit)</b>						
Classification	Current	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
Single Family	\$62.07	\$65.42	\$68.95	\$72.68	\$76.97	\$81.51
Multi-Family	\$40.92	\$43.13	\$45.46	\$47.91	\$50.74	\$53.73
Mobile Homes	\$40.92	\$43.13	\$45.46	\$47.91	\$50.74	\$53.73
<b>Non-Residential Sewer Rates</b>						
<b>Monthly Sewer Service Charge (\$/meter)</b>						
Meter Size	Current	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
3/4"	\$88.22	\$92.98	\$98.01	\$103.30	\$109.39	\$115.85
1"	\$149.98	\$158.08	\$166.62	\$175.61	\$185.97	\$196.95
1.5"	\$291.12	\$306.84	\$323.41	\$340.87	\$360.99	\$382.28
2"	\$467.55	\$492.80	\$519.41	\$547.46	\$579.76	\$613.96
3"	\$882.18	\$929.82	\$980.03	\$1,032.95	\$1,093.89	\$1,158.43
4"	\$1,473.23	\$1,552.78	\$1,636.63	\$1,725.01	\$1,826.79	\$1,934.57
6"	\$2,937.65	\$3,096.28	\$3,263.48	\$3,439.71	\$3,642.65	\$3,857.57
8"	\$4,702.00	\$4,955.91	\$5,223.53	\$5,505.60	\$5,830.43	\$6,174.42
<b>All Accounts</b>						
<b>Monthly Wastewater System Replacement Fee (\$/meter)</b>						
Meter Size	Current	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
3/4"	\$16.92	\$17.83	\$18.80	\$19.81	\$20.98	\$22.22
1"	\$28.76	\$30.31	\$31.95	\$33.68	\$35.66	\$37.77
1.5"	\$55.83	\$58.84	\$62.02	\$65.37	\$69.23	\$73.31
2"	\$89.67	\$94.51	\$99.62	\$105.00	\$111.19	\$117.75
3"	\$169.18	\$178.32	\$187.94	\$198.09	\$209.78	\$222.16
4"	\$282.54	\$297.80	\$313.88	\$330.83	\$350.35	\$371.02
6"	\$563.39	\$593.81	\$625.88	\$659.68	\$698.60	\$739.81
8"	\$901.75	\$950.44	\$1,001.77	\$1,055.86	\$1,118.16	\$1,184.13

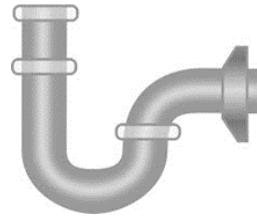


# Proposed Wastewater Volume Rates

Non Residential Volume Rates (\$/1,000 gallons)						
Strength Charge	1/1/2022	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027
Low	\$5.02	\$5.29	\$5.58	\$5.88	\$6.22	\$6.59
Medium	\$7.08	\$7.46	\$7.87	\$8.29	\$8.78	\$9.30
High	\$18.41	\$19.40	\$20.45	\$21.56	\$22.83	\$24.18

## - Strength Categories

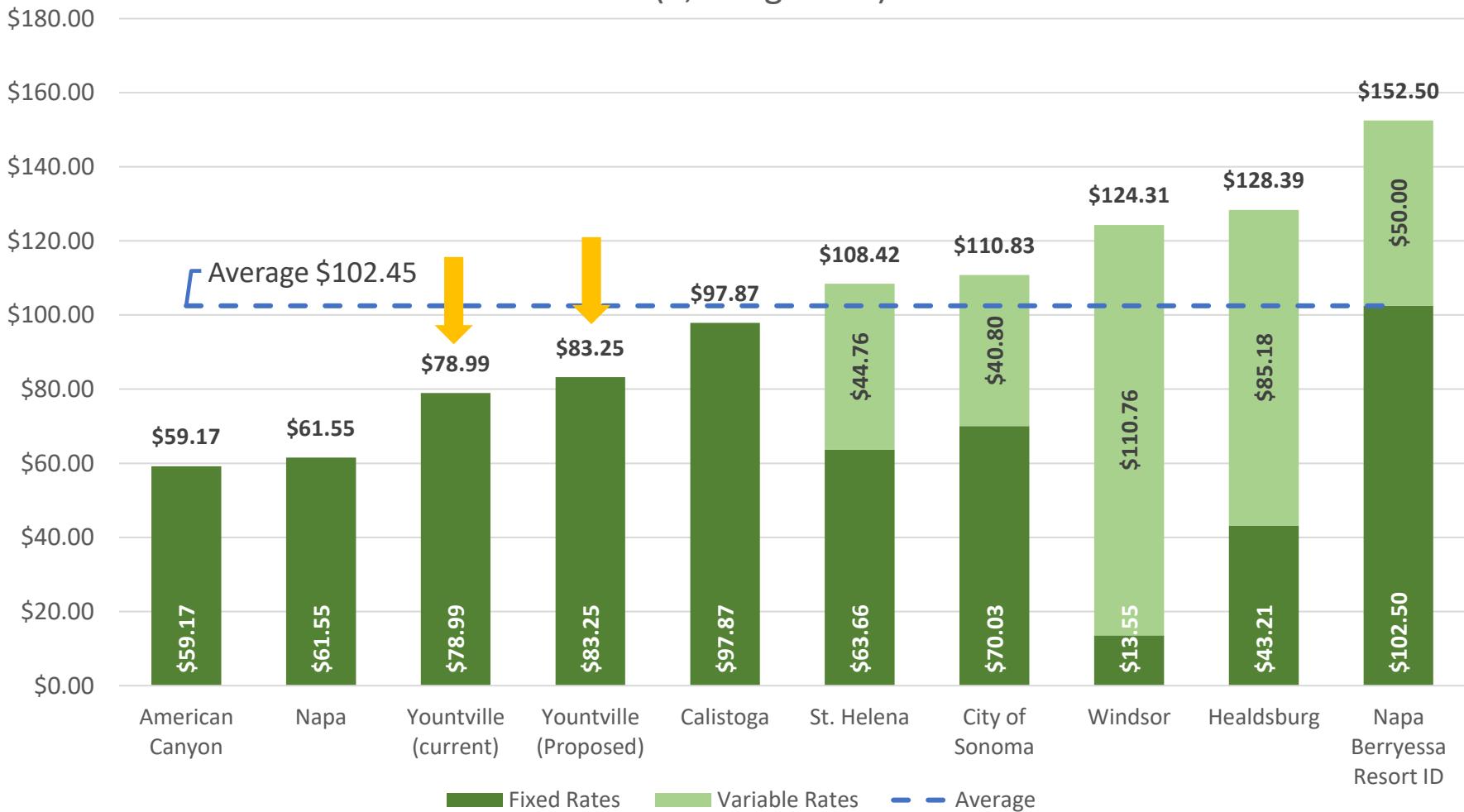
- *Low Strength: Church, Schools, Group Homes, Town Use, Office, Barber Shop*
- *Medium Strength: Hotels/Inns, Multi-Commercial*
- *High Strength: Restaurants, Tasting Rooms*



## Proposed Monthly Bill Impacts

<b>Single Family Monthly Bill Impact</b>	<b>Current</b>	<b>1/1/2023</b>	<b>1/1/2024</b>	<b>1/1/2025</b>	<b>1/1/2026</b>	<b>1/1/2027</b>
<b>Single Family Rate \$ per Month Increase</b>	\$78.99	\$83.25	\$87.75	\$92.49	\$97.95	\$103.73
		\$4.26	\$4.50	\$4.74	\$5.46	\$5.78

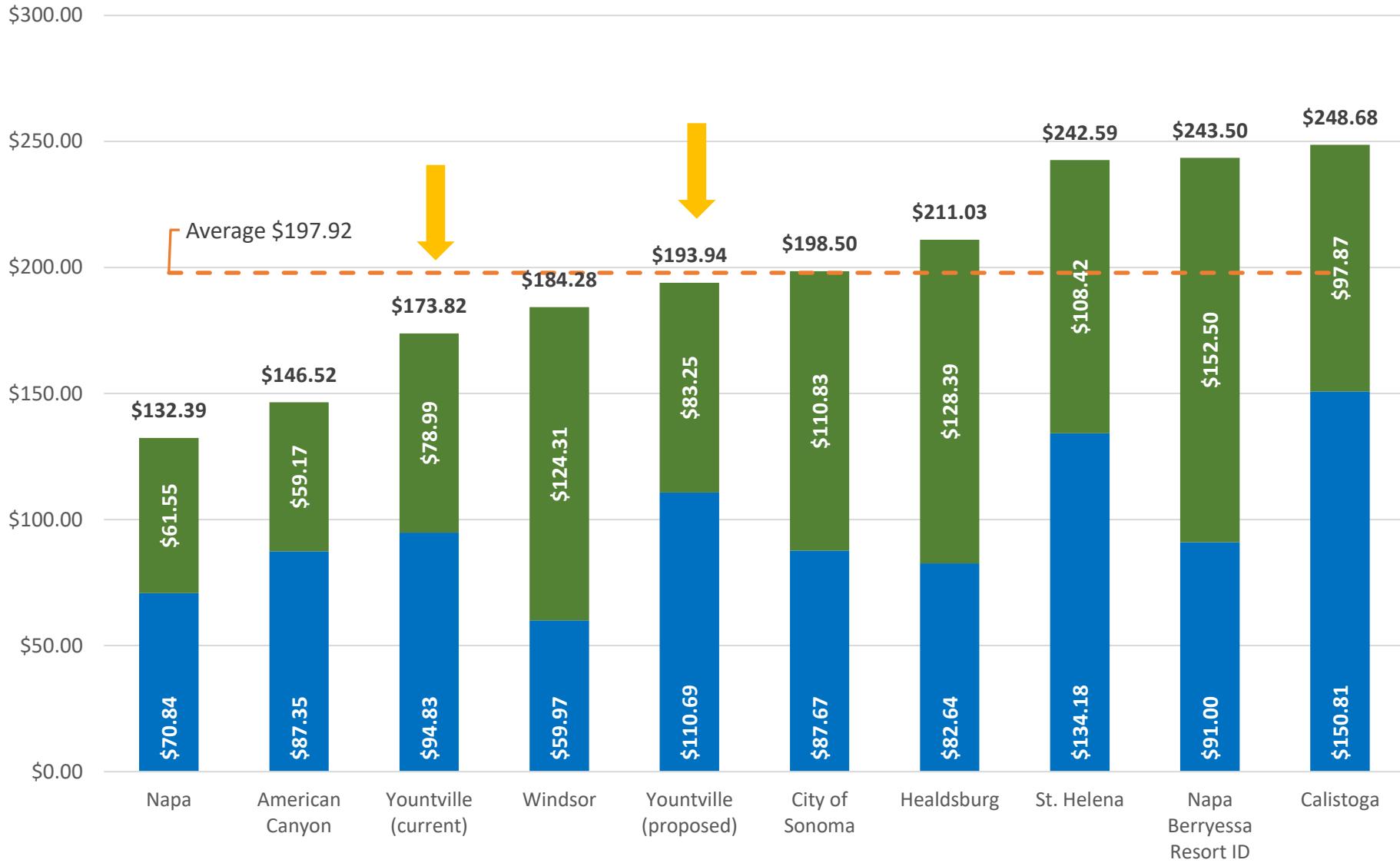
## Single Family Residence Monthly Wastewater Rates July 1, 2022 (6,000 gallons)



*The Town's rate is among the lowest in the area and will maintain its position with the proposed rate increase*



## Single Family Residential Monthly Combined Water & Sewer Bills as of July 1, 2022

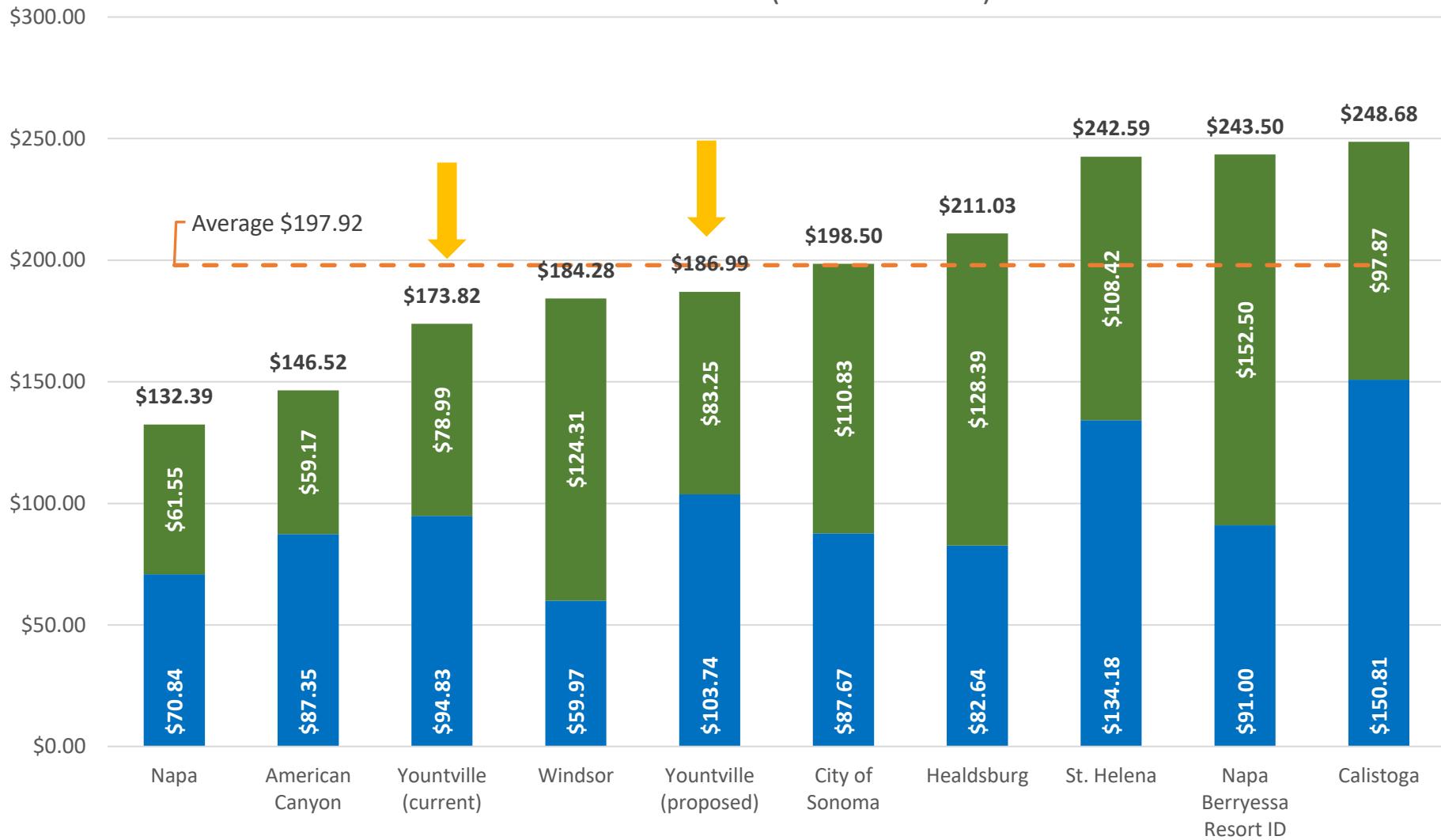


Water Rates      Sewer Rates      Average



## Single Family Residential Monthly Combined Water & Sewer Bills as of July 1, 2022

### Reduced Water Bills (8.5% Increases)



Water Rates      Sewer Rates      Average



# Proposition 218 Procedures

- Mail a notice to all ratepayers outlining proposed rates
  - *Notice Maximum Rates*
- Hold a Public Hearing at least 45 days later to consider proposed rates
- Public hearing scheduled for Tuesday, November 15, 2022, at or about 3:00 p.m. in the Town Council Chambers
- Receive public comments and written protests
  - *If a majority of rate payers submit written protests (one per parcel), rates may not be passed*
  - *If there is no majority protest, rates may be passed by Council resolution*
- If approved, rates would be effective January 1, 2023
  - *Increased January 1 each year thereafter*





# Water and Wastewater Questions & Rate Study Comments



**BARTLE WELLS ASSOCIATES**  
INDEPENDENT PUBLIC FINANCE ADVISORS

# Water Appendix Slides



# Five-Year Water Capital Plan

Project	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	Total
Hydrant Repair and Replacement		\$35,000		\$38,500		<b>\$73,500</b>
Upgrade SCADA System Emergency Well to Operational Well	\$140,000					<b>\$140,000</b>
1MG Well Water Tank/ Pump Station and Transmission Main; Design, Permitting and Construction				\$250,000	\$4,800,000	<b>\$5,050,000</b>
Water System Inter tie projects		\$65,000				<b>\$65,000</b>
Relocation of Harvest Ct Fire Hydrant	\$15,000					<b>\$15,000</b>
Clay Valve Rebuild at Finnell Rd and Yount, and Finnell Rd and Yountville XRd	\$8,000					<b>\$8,000</b>
Water Meter Replacement Program	\$30,500	\$32,000	\$33,500	\$35,500	\$37,500	<b>\$169,000</b>
Main and Service Lateral Replacement Program				\$191,500	\$201,000	<b>\$392,500</b>
Hydrant & Main Flushing with No-Des				\$50,000		<b>\$50,000</b>
<b>TOTAL</b>	<b>\$193,500</b>	<b>\$132,000</b>	<b>\$33,500</b>	<b>\$565,500</b>	<b>\$5,038,500</b>	<b>\$5,963,000</b>

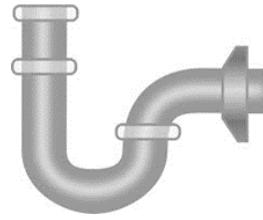


# Wastewater Appendix Slides

# 5-Year Wastewater Capital Plan

Project	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	Total
Joint Treatment Plant Office Modernization Project	\$803,000					\$803,000
SCADA Controls	\$50,000					\$50,000
Rebuild Sludge Heater & Add Sludge Mixing System		\$250,000				\$250,000
Clean & Inspect Primary/Secondary Digester	\$35,000					\$35,000
Assess & Replace Trickling Filter Media			\$40,000	\$300,000		\$340,000
Design & Construct Headworks Improvements		\$150,000				\$150,000
Sludge Handling/Drying/Disposal Improvements			\$200,000			\$200,000
Second Fuzzy Filter Instillation		\$100,000				\$100,000
Paint Wastewater Facilities, Structures, and Equipment				\$100,000		\$100,000
Safety net and safety hinged doors for hand well access	\$20,000					\$20,000
Pump Station Assessment and Capacity Evaluation	\$40,000					\$40,000
WWTP Basin Assessment, Maintenance and Repair	\$300,000					\$300,000
Recycled Water Transmission Main to Veterans Park		\$10,000	\$60,000			\$70,000
Recycled Water Truck Filling Station at South Parking Lot		\$50,000				\$50,000
Headworks Grit Screw Chamber Improvement		\$25,000				\$25,000
Pond Site Fencing, Grading and Drainage Improvements		\$25,000	\$25,000			\$50,000
Inflow and Infiltration Reduction Program (A-Line)	\$91,000	\$95,500	\$101,000	\$106,500	\$106,500	\$500,500
Sewer Main Replacement and Repair Program	\$88,500	\$93,000	\$97,500	\$102,500	\$102,500	\$484,000
Plant Equipment Replacement Program	\$81,500	\$86,000	\$90,000	\$94,500	\$94,500	\$446,500
Town Pump Station Equipment Replacement Program	\$13,500	\$14,500	\$15,000	\$16,000	\$16,000	\$75,000
<b>Total</b>	<b>\$1,522,500</b>	<b>\$649,000</b>	<b>\$638,500</b>	<b>\$659,500</b>	<b>\$619,500</b>	<b>\$4,089,000</b>





# Wastewater Debt Service Obligations

Issue	2022/23	2023/24	2024/25	2025/26	2026/27
2014 SRF Loan	\$164,661	\$164,661	\$164,661	\$164,661	\$131,331
<u>2013 Madison Yount Project</u>	<u>29,990</u>	<u>30,043</u>	<u>30,088</u>	<u>29,697</u>	<u>30,158</u>
<b>Total Wastewater Enterprise Debt Service</b>	<b>\$194,651</b>	<b>\$194,704</b>	<b>\$194,748</b>	<b>\$194,358</b>	<b>\$161,489</b>

