



CITY OF NAPA

955 School Street
Napa, CA 94559
www.cityofnapa.org

Staff Reports

File #: 292-2023, Version: 1

To: Honorable Mayor and Members of City Council

From: Phil Brun, Utilities Director

Prepared By: Joy Eldredge, Deputy Utilities Director

TITLE:

Proposed Water Rates FY24-FY28

RECOMMENDED ACTION:

Authorize City Staff to Provide Written Notice by Mail of the Proposed Update to Water Rates in Compliance with all Requirements of State Law, and Schedule a Public Hearing to Consider Adoption of Updated Water Rates on November 7, 2023, at 6:30 pm.

DISCUSSION:**Background**

The Water Division of the City's Utilities Department operates as a self-supporting non-profit utility to provide access to safe, reliable and life sustaining water every second of every day. The City sets water rates to provide revenue equal to the cost of operating the water system to provide service to customers. The water system includes infrastructure, water supply, health and safety protections, fire protection, and reliability. The City typically performs a cost of service analysis for the water system every five years to ensure that costs are recovered and allocated equitably to each customer class based on the service provided. The last cost of service analysis was performed in 2017 and the last adjustment to water rates occurred in October 2021.

As the previous study occurred seven years ago and did not consider material shortages and cost increases that have occurred in recent years, current revenue from rates is not sufficient to cover the cost of providing water service. A cost of service analysis has been performed to determine proposed rates to ensure the cost of service is recovered (Attachment 1). The structure of the rates remains the same. They include a fixed service charge for all customer classes in addition to a quantity charge for water used. Tiered rates remain for single family residential customers. Prior to considering the proposed rates for adoption, a notice must be sent to all property owners pursuant to Proposition 218 (Attachment 2). As shown on page one of Attachment 2, Napa's water rates are currently, among the lowest in the Bay Area. Under the proposed rates they will remain among the lowest and well below average.

Results of 2017 Rate Analysis

Water rates were last analyzed in 2017 to ensure recovery of the cost of providing water service. In 2017, rates were established for a 5-year period. Six years have passed since the last study including reduced water sales due to the 2020-2022 drought. Costs to operate the system and invest

in capital improvements have increased. Independent of global impacts on the economy, it is expected that rate adjustments are necessary to keep up with standard changes to the cost of doing business. In fact, if revenues would be exceeding costs, it would mean the assumptions made in 2017 were too conservative and the operation would have over-collected for the cost of providing service. The status of the Water Fund is to the contrary. In FY2024, in order to continue at the same level of investments in capital improvements, and pay operating expenses, the result is a \$6.8M deficit budget.

2023 Cost of Service Analysis

The Cost of Service Report (Attachment 1) provides detail about how the cost of providing water service is calculated for all customers. There is no change to the structure of the rates. There is a fixed service charge that is charged to all customer classes and a quantity charge for single-family residential, multi-family residential, commercial/industrial/institutional, and irrigation. Since residential usage at higher levels is discretionary outdoor use, single-family residential customers will continue to have 3 tiers: up to 14 units, 15-27 units and 28 and more units. The higher cost of the upper tiers reflects the increased water supplies and size of infrastructure required to provide the greater volume of water. As an example, 73% of all customer bills each year are 14 units or less. Higher usage in the upper tiers drives the size of infrastructure conveyance and water supply availability and therefore warrants a higher rate. Other customer classes have either dedicated meters for irrigation uses or proportionately smaller outdoor uses, so they have a single quantity charge. An adjustment to the definition of Inside City versus Outside City customer classes has been made such that Inside City is defined as inside the Rural Urban Limit (RUL) line and inside the Sphere of Influence (SOI). This clarification corresponds with completion of the City's General Plan and reflects the area the City plans to provide services.

Operations and Maintenance

The City provides 24/7 service for treatment, transmission and distribution operations with a team of 68 staff that includes engineering and design of capital improvements. Staff operates and maintains three water treatment plants and 360 miles of pipe. As alluded to with respect to the 2017 cost analysis, inflationary increases exceeded previous projections. Consumables that are integral to operations including chemicals used in the water treatment process and repair clamps, pipe, and fittings have increased well beyond typical rates. Since 2020 chemicals have increased 70% from an overall cost of \$1M per year to \$1.7M. Chemicals are competitively bid locally through a pool of water treatment agencies to guarantee the best price available and worldwide raw material shortages have driven prices. As we've come out of the pandemic, 2023 prices appear to have stabilized, albeit at higher levels. Our distribution system repair and replacement parts have also been subject to supply chain challenges and raw material shortages along with increased unit costs. Budget increases of \$250,000 are projected in 2024 alone.

In addition to market forces affecting consumables, the costs for State Water Project supplies continues to rise. In the last two years costs have risen by \$2M and the annual price of \$9.1M accounts for 22% of the enter budget of the Water Enterprise. With continued policy changes that emphasize environmental and natural resource concerns that restrict operations and require increased monitoring and analyses, the cost of State Water Project entitlements continue to rise while the reliability of the water decreases.

In light of the above and recent stabilization of markets compared to the 2020-22 pandemic period, increases of materials and supplies are assumed at 4.6% while water purchases are assumed at 3.5% for the five-year study period. This is in line with 2023 inflationary figures that average 4.1% for the San Francisco Bay Area Consumer Price Index (CPI) through June.

Aging Infrastructure Requires Investment

The water system is a complex network including two watersheds, dams, and reservoirs, three treatment plants, 360 miles of pipeline, 14 storage tanks, 9 pump stations, 9,700 valves, 2,900 fire hydrants, over 25,500 meters and more. If it were to be replaced today City of Napa's water system would cost an estimated \$941M. Much of our system is old. Forty years is the estimated useful life of a treatment plant. The Hennessey Treatment Plant is one of our two major treatment plants able to meet winter demands and required to run to meet summer demands. The plant is 42 years old and unable to remove taste and odor compounds associated with our local water supply. Investments of approximately \$80M are needed to upgrade the Hennessey Treatment Plant. In addition, the Lake Hennessey spillway is incapable of conveying the runoff from the probable maximum flood and is in need of expansion. The estimated cost of this project is \$10M.

The design life of buried pipes is 100 years. Of our 360 miles of pipelines: 50 miles are major transmission lines that are between 55 and 75 years old. We have 20 miles of distribution mains that are 100 years old. Napa's water system was built in phases through the years and requires consistent investment to insure reliability. Renewal and replacement of pipes is necessary to manage operating costs. In a typical year, there are between 70 and 110 emergency repairs to the pressurized pipe network. It is prudent to replace or renew pipes in a consistent and ongoing basis to avoid increased operating costs and emergency repairs.

Staff is in the process of completing a 30-Year Master Plan and Corresponding Financial Plan. Projects and associated cost estimates will include a much-needed overhaul of the Hennessey Treatment Plant, replacement of the 36-inch asbestos cement transmission main (17 miles) that is subject to catastrophic failures, renewal and replacement of distribution mains that are beyond their useful life, replacement or reinforcement of pipeline river crossings, as well as a menu of water supply options to compare costs and reliability of future supplies.

Proposed Rates

The proposed rates (Attachment 2) are designed to meet the needs for operations, maintenance, and water supply costs. To address capital needs, the proposed rates will support a \$100M bond issuance in 2027. The debt service on a 30-year bond at 5.10% would be \$7.2M. An increase to the pay-as-you-go capital program from the current \$6M to \$8M per year would be accommodated.

Typical Monthly Costs for Water Service

It is recognized that bills are sent bi-monthly (two months of water service), but are presented here on a monthly basis for ease of comparison to most household costs. 1 unit of water is 1,000 gallons.

Single Family Residential customers that are low users (consume just 4 units per month) will see a monthly cost increase from \$42.57 to \$47.88 per month in 2024. This rate of consumption is a typical winter bill and results in an increase of approximately \$5 per month as proposed for each of the next five years. 52% of all bills sent to customers are this level or lower.

An average user that consumes 8 units per month will see an increase from \$62.86 to \$72.32 per month in 2024. This is typical summertime usage including irrigation and results in an increase of \$6-\$8 per month as proposed for each of the next five years. 77% of all bills sent to customers are this level or lower.

Low Income Assistance Program

The RateShare Program, initiated in 2011, is designed to assist lower income customers. Program eligibility is based on PG&E's Care program. If a customer is eligible for CARE, they qualify for the RateShare discount. The proposed program will continue to offer \$25 reduction per bill or (\$12.50 monthly). To hold true with the Cost of Service basis for water rates, ratepayer funds cannot be used to subsidize rates of other customers. Therefore, the funds available for the program are those funds that are earned annually for cell tower leases on in-system storage tanks.

An additional program started during the Covid-19 pandemic, is the Low Income Household Water Assistance Program (LIHWAP) and is administered through the Department of Health & Human Services (DHHS). LIHWAP has recently been extended through March 31, 2024. Bills of qualifying customers are paid directly to the City who is confirmed as an eligible utility.

Communication Plan

Staff has prepared Special Notice of Public Hearing (Attachment 2) based on the proposed rates. If authorized, staff will mail the Special Notice of Public Hearing, in accordance with Proposition 218, to all customers and existing property owners. After the 45-day public review period, staff will return to City Council for a public hearing on November 7, 2023 to consider adoption of the revised water rates. If approved by City Council, rates are proposed to be effective on the start of the billing cycle on January 1, 2024.

In addition to the Notice, the following resources will be made available on the City's website at **CityofNapa.org/water**

- Bill calculator to calculate the future cost of consumed units.
- List of Frequently Asked Questions (FAQs) and answers
- Report of the Cost of Service Analysis in .pdf form
- Map of elevation surcharge areas
- Map of parcels where fire service charges apply

The schedule for the proposed water rate adjustment will be:

- September 22, 2023- Issue Special Notice of Public Hearing to adopt water rates and commence the 45-day public review period.
- November 7, 2023 - Public Hearing to consider adoption of proposed water rates.
- January 1, 2024 - Start implementation of adopted water rates.
- March 1- April 30, 2024 - Customers will receive first bi-monthly bills under the revised rates.

FINANCIAL IMPACTS:

There is no direct impact associated with the authorization to issue a Notification to property owners. However, future associated actions will have profound impacts to the level of investment that is available for the water system. The adopted budget shows a deficit of \$6.8M in FY24. Proposed rates are necessary to address this deficit position.

CEQA:

The Utilities Director has determined that the Recommended Action described in this Agenda Report is not subject to the California Environmental Quality Act pursuant to Public Resources Code Section 21080(b)(8).

DOCUMENTS ATTACHED:

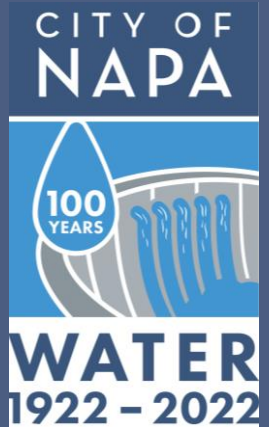
ATCH 1 - Water Service Cost of Service Report
ATCH 2 - Special Notice of Public Hearing
ATCH 3 - Slide Presentation by Staff

NOTIFICATION:

None



*"You don't know the value of
water until the well runs dry"*
- Ben Franklin



City of Napa Water Rates

September 19, 2023

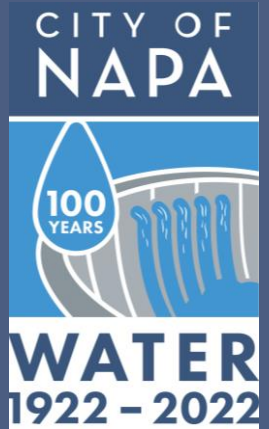
*"Whiskey is for drinking...
Water is for fighting"*
-Mark Twain



City of Napa Water System

\$941 Million System

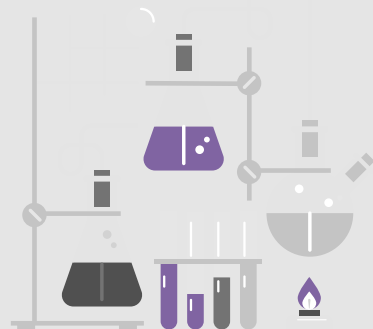
- **Water Supplies**
 - ❖ Lake Hennessey
 - ❖ Milliken Reservoir
 - ❖ State Water Project
- **Water Treatment - 3 Plants (43 MGD)**
- **Water Transmission**
 - ❖ 14 Storage Tanks (31 million gal)
 - ❖ 10 Pump Stations
 - ❖ 11 Regulator Stations
- **Water Distribution**
 - ❖ 360 miles of Pipelines
 - ❖ 25,500 Water Services (City & Unincorporated County)



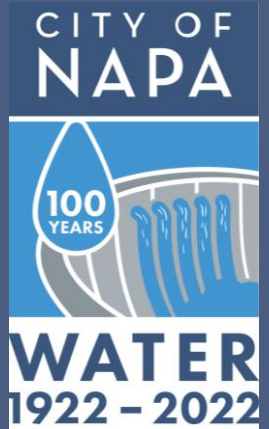
City of Napa Water System



- ❑ Annual Budget \$38 Million
- ❑ \$6M annual Capital Improvements
- ❑ 24/7 Operation
- ❑ 68 full-time staff
- ❑ Real-time monitoring at treatment plants
- ❑ Hundreds of samples every week
- ❑ Certified, licensed professionals operating at all times



Turbidimeters



Water Rates Cost of Service

WATER COST OF SERVICE STUDY

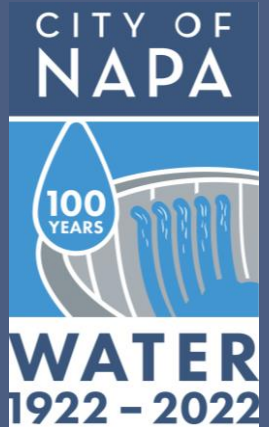
BLACK & VEATCH PROJECT NO. 412083

... costs to provide
service

PREPARED FOR

City of Napa, CA

30 AUGUST 2023



☐ Revenue Collected

- ❖ No taxes
- ❖ >90% of revenue is bimonthly water bills
- ❖ Cell tower leases, capacity fees/new connections

☐ Costs to Operate and Invest in System

- ❖ O&M
- ❖ Capital Improvements
- ❖ Non-recurring (Sanitary Survey of Watersheds, Urban Water Mgmt Plan)

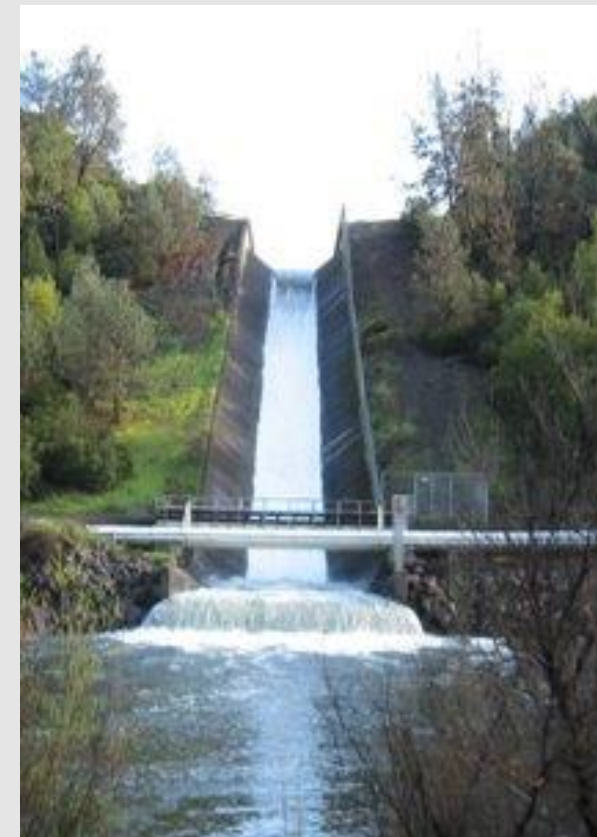
☐ Detailed review 6 years ago in 2017



Current Status of Water Enterprise

- ❑ Rates not adjusted since October 2021
- ❑ Budget deficit of \$6.8 M if we maintain \$6M annual CIP commitment
- ❑ Proposed Rates are necessary
 - ❖ Operate the system
 - ❖ Purchase water supply
 - ❖ Invest in infrastructure

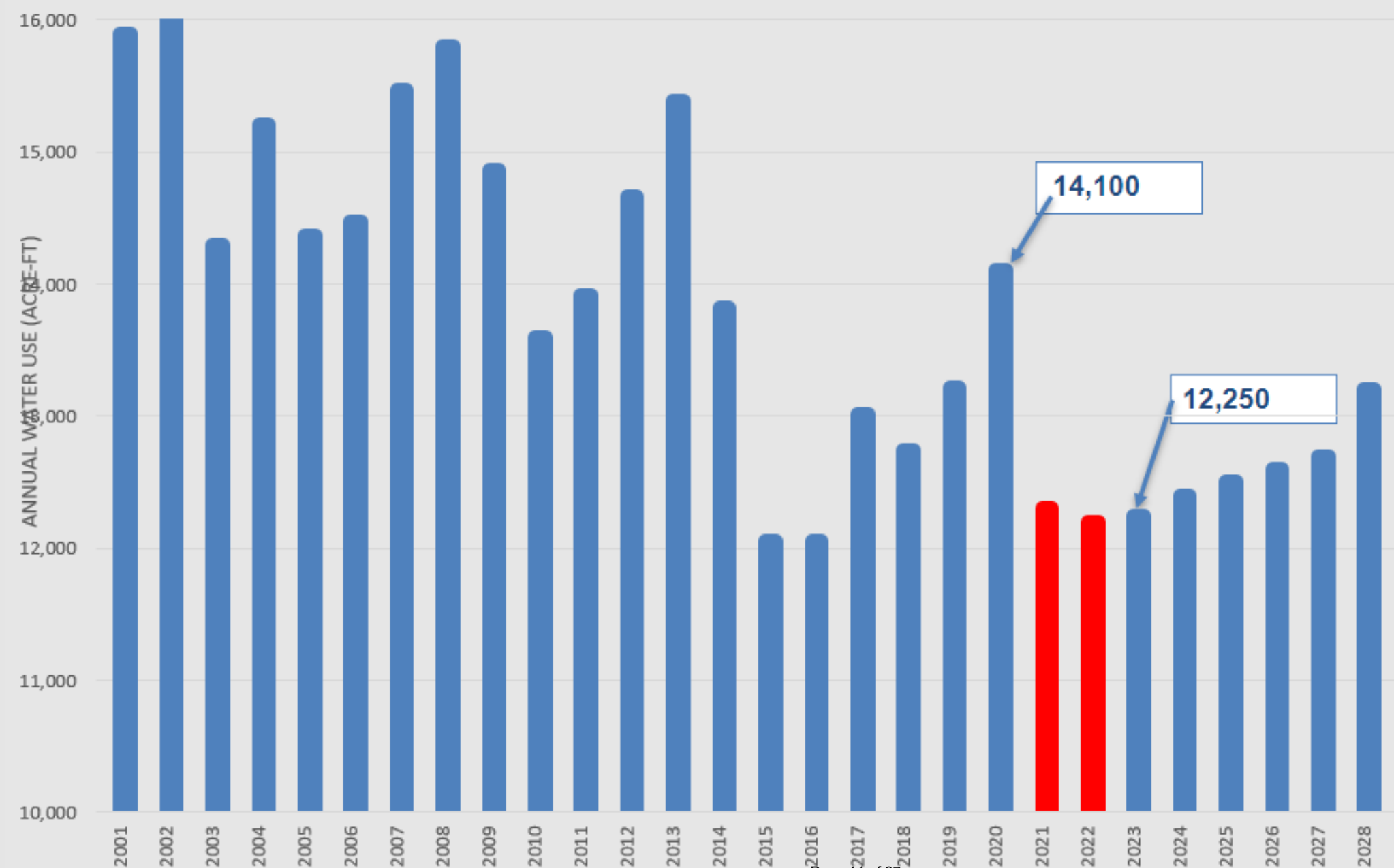
... Reliable System ...



Demand Projections



2001-2030 Actuals & Projected Customer Water Use



Operating Expenses

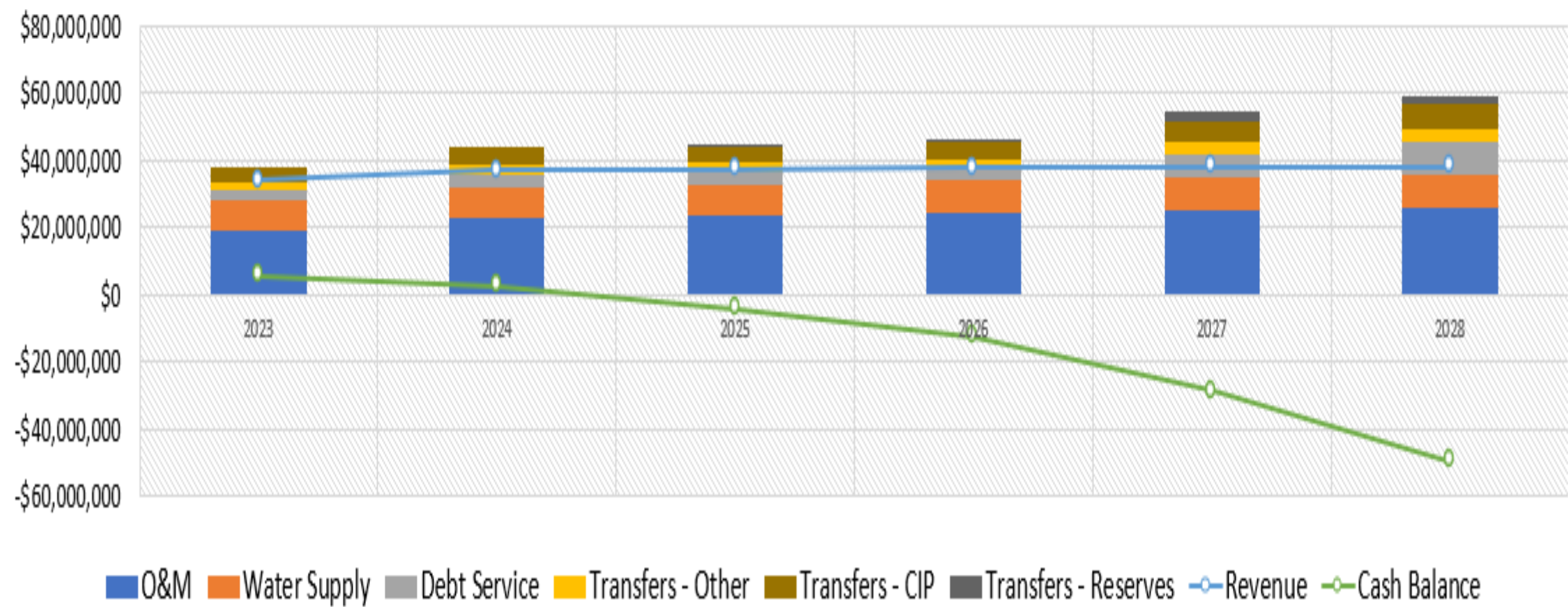
□ Inflationary Increases

- ❖ 24/7 operation
- ❖ 68 staff ensure Regulatory Compliance
- Water Supply - State Water Project (+\$2M)
- Treatment – Chemicals (+\$700k since 2020)
- Distribution –Repair Clamps, Fittings, Pipe (+\$250k)
- Risk/Liability – (+\$700k)

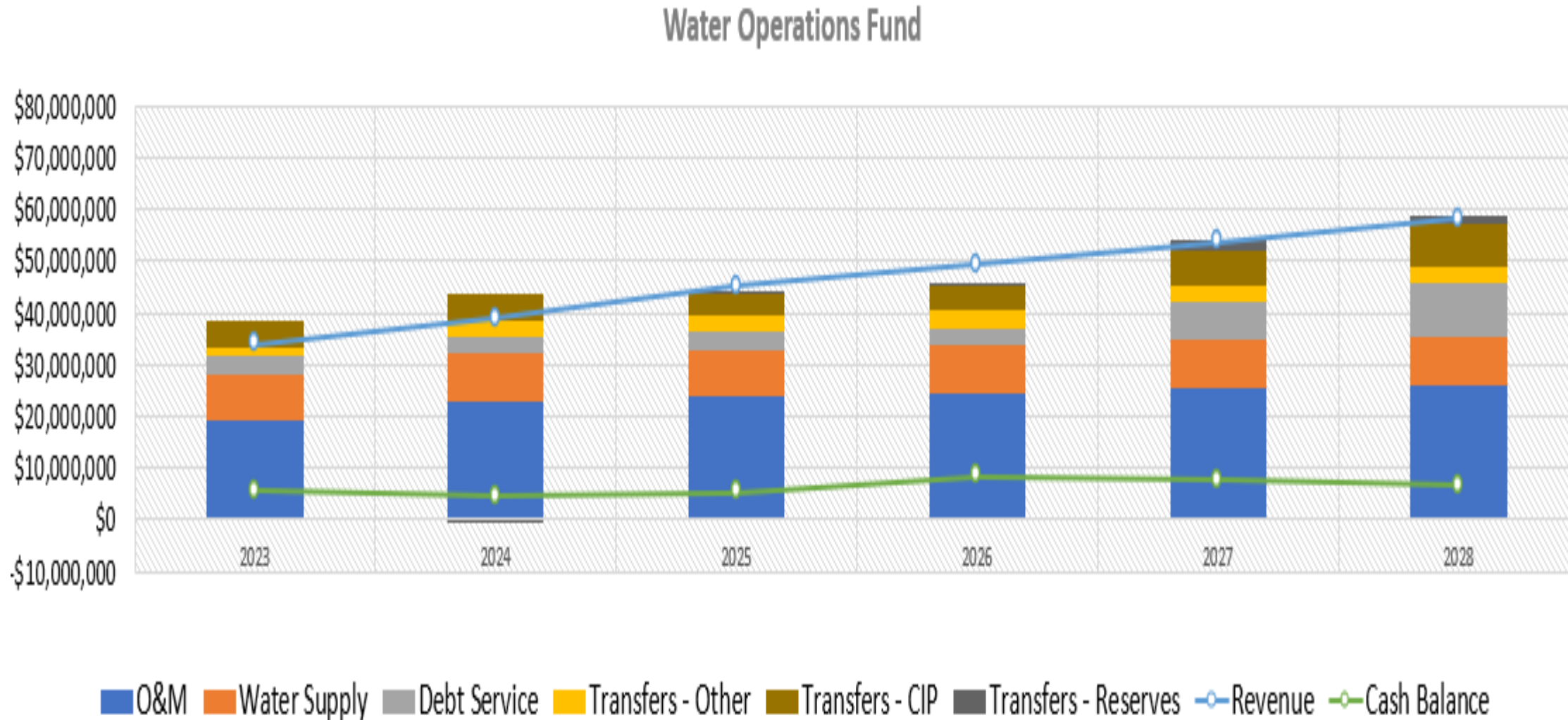


No Rate Increase

Water Operations Fund



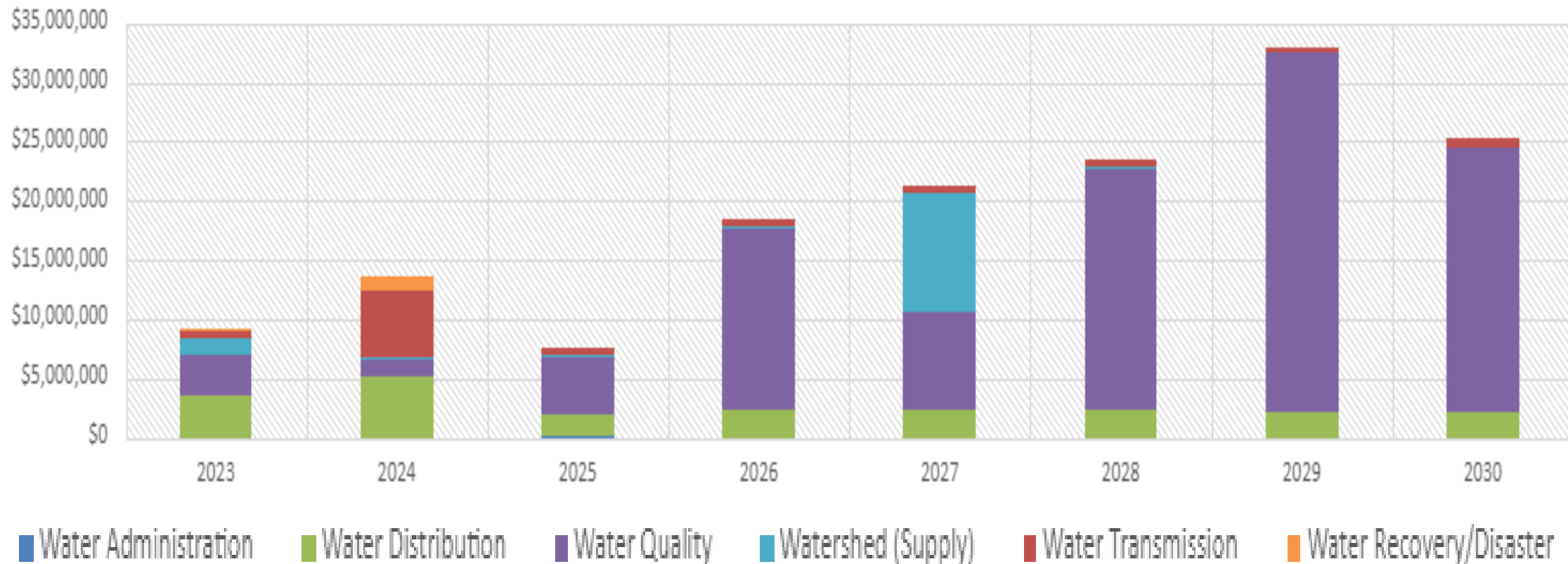
Proposed Rate Increase



- ☐ Meets needs for operations, maintenance and water supply costs
- ☐ Increases annual contribution to CIP from \$6M to \$8M by 2028
- ☐ Prepares for 30-Yr Master Plan and Financial Plan
- ☐ Supports \$100M Bond issuance in 2027 (\$7.2M annual debt service)

Identified CIP Needs

Water Capital Improvements by Type



- ❑ **Water Quality** - focus on Hennessey Treatment Plant Upgrades in 2028-2030 (\$80M)
- ❑ **Water Supply** – Hennessey spillway expansion (\$10M)
- ❑ **Water Transmission** – 12-in on BV Road, 36-in AC main 17 miles (\$4M/mile)

Current and Proposed Rates

Bimonthly Fixed Service Charge

ALL CUSTOMER CLASSES Inside/Outside City

Current	Service Size	Proposed				
		1/1/2024	10/1/2024	10/1/2025	10/1/2026	10/1/2027
\$48.58	3/4-inch	\$52.04	\$58.28	\$63.53	\$69.25	\$74.79
\$48.58	1-inch	\$52.04	\$58.28	\$63.53	\$69.25	\$74.79
\$93.43	1 1/2-inch	\$99.53	\$111.47	\$121.51	\$132.44	\$143.04
\$147.24	2-inch	\$156.51	\$175.29	\$191.07	\$208.26	\$224.92
\$290.75	3-inch	\$308.45	\$345.46	\$376.56	\$410.45	\$443.28
\$452.19	4-inch	\$479.39	\$536.92	\$585.24	\$637.91	\$688.94
\$900.65	6-inch	\$954.22	\$1,068.73	\$1,164.91	\$1,269.75	\$1,371.33
\$1,438.79	8-inch	\$1,713.95	\$1,919.62	\$2,092.39	\$2,280.71	\$2,463.16

Water Quantity Charge

SINGLE-FAMILY RESIDENTIAL: Inside City (In) and Outside City (Out) \$ cost per unit (unit = 1,000 gallons)

Current		Tier	Proposed									
			1/1/2024		10/1/2024		10/1/2025		10/1/2026		10/1/2027	
In	Out		In	Out	In	Out	In	Out	In	Out	In	Out
\$4.57	\$6.53	0-14 units	\$5.46	\$8.07	\$6.12	\$9.03	\$6.67	\$9.85	\$7.27	\$10.73	\$7.85	\$11.59
\$6.58	\$9.58	15-27 units	\$8.05	\$11.53	\$9.01	\$12.91	\$9.82	\$14.08	\$10.71	\$15.34	\$11.56	\$16.57
\$8.70	\$12.39	28+ units	\$9.77	\$12.72	\$10.94	\$14.25	\$11.92	\$15.53	\$13.00	\$16.92	\$14.04	\$18.28

ELEVATION SURCHARGE for all Pumped Zone Customers \$ cost per unit (unit = 1,000 gallons)

Current	Proposed				
	1/1/2024	10/1/2024	10/1/2025	10/1/2026	10/1/2027
\$2.08	\$2.46	\$2.75	\$3.00	\$3.27	\$3.53

Current and Proposed Rates

Bimonthly Fixed Service Charge

ALL CUSTOMER CLASSES Inside/Outside City

Current	Service Size	Proposed				
		1/1/2024	10/1/2024	10/1/2025	10/1/2026	10/1/2027
\$48.58	3/4-inch	\$52.04	\$58.28	\$63.53	\$69.25	\$74.79
\$48.58	1-inch	\$52.04	\$58.28	\$63.53	\$69.25	\$74.79
\$93.43	1 1/2-inch	\$99.53	\$111.47	\$121.51	\$132.44	\$143.04
\$147.24	2-inch	\$156.51	\$175.29	\$191.07	\$208.26	\$224.92
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\$900.65	6-inch	\$954.22	\$1,068.73	\$1,164.91	\$1,269.75	\$1,371.33
\$1,438.79	8-inch	\$1,713.95	\$1,919.62	\$2,092.39	\$2,280.71	\$2,463.16

MULTI-FAMILY RESIDENTIAL, \$ cost per unit (unit = 1,000 gallons)

Current	Location	Proposed				
		1/1/2024	10/1/2024	10/1/2025	10/1/2026	10/1/2027
\$6.53	Inside City	\$7.59	\$8.51	\$9.27	\$10.11	\$10.91
\$10.26	Outside City	\$11.17	\$12.52	\$13.64	\$14.87	\$16.06

COMMERCIAL/INDUSTRIAL/INSTITUTIONAL, \$ cost per unit (unit = 1,000 gallons)

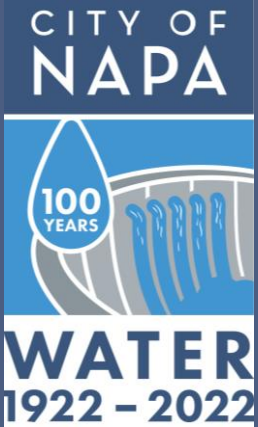
Current	Location	Proposed				
		1/1/2024	10/1/2024	10/1/2025	10/1/2026	10/1/2027
\$6.64	Inside City	\$7.58	\$8.49	\$9.25	\$10.08	\$10.89
\$10.40	Outside City	\$11.10	\$12.44	\$13.55	\$14.77	\$15.96

IRRIGATION, \$ cost per unit (unit = 1,000 gallons)

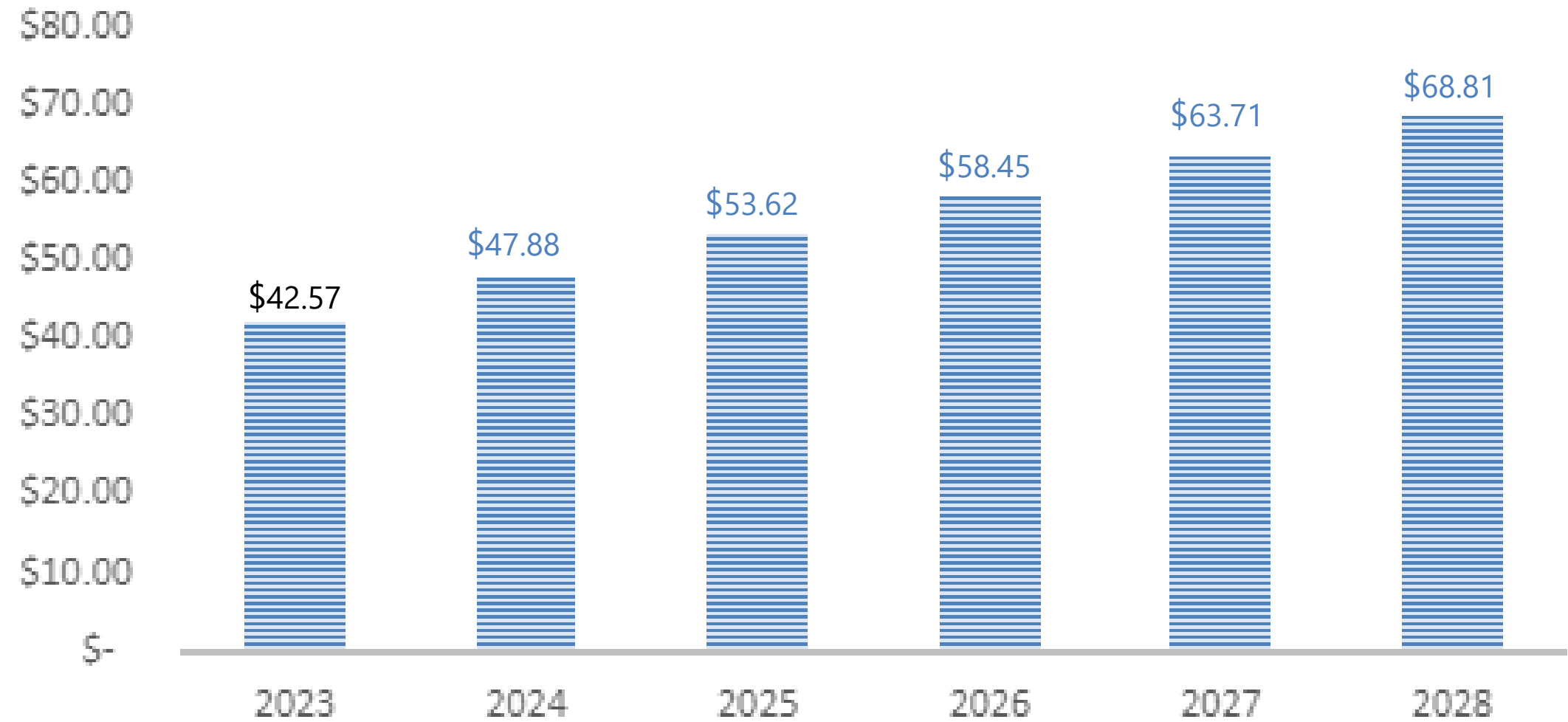
Current	Location	Proposed				
		1/1/2024	10/1/2024	10/1/2025	10/1/2026	10/1/2027
\$6.84	Inside City	\$7.65	\$8.57	\$9.34	\$10.19	\$11.00
\$10.70	Outside City	\$11.27	\$12.62	\$13.76	\$15.00	\$16.20

Typical Winter Monthly Bill

Residential 1-in meter
Indoor Consumption: 8 units (4 units per month)



INSIDE CITY - SFR TYPICAL MONTHLY BILL



Adjustment is approximately \$5 per month

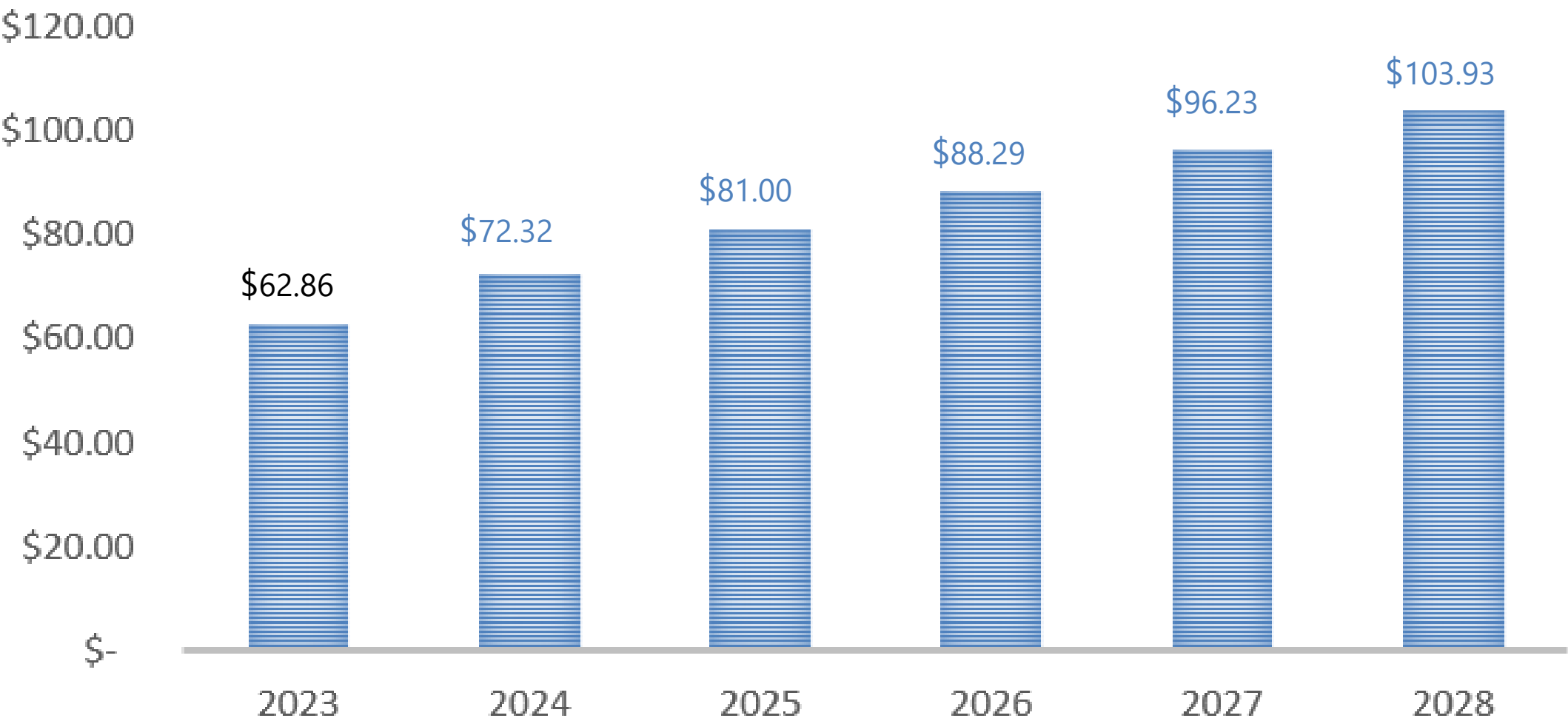
52% of all bills will be at this level or lower



Typical Summer Monthly Bill

Residential 1-in meter
In/Outdoor Consumption: 16 units (8 units per month)

INSIDE CITY - SFR TYPICAL MONTHLY BILL



Adjustment is approximately \$8-10 per month

77% of all bills will be at this level or **lower**



Typical Family of Four

One week of indoor water use is...



* A typical family of 4 uses 1 unit of water per week during the winter months. These calculations are based on the average of low-flow fixtures and calculated using the proposed rates. You can get more out of the highest efficiency fixtures. High-efficiency showerheads, faucet aerators, and other water-saving devices are available at the Utilities Department, 1700 Second Street Suite 100, Napa.

Assistance Programs



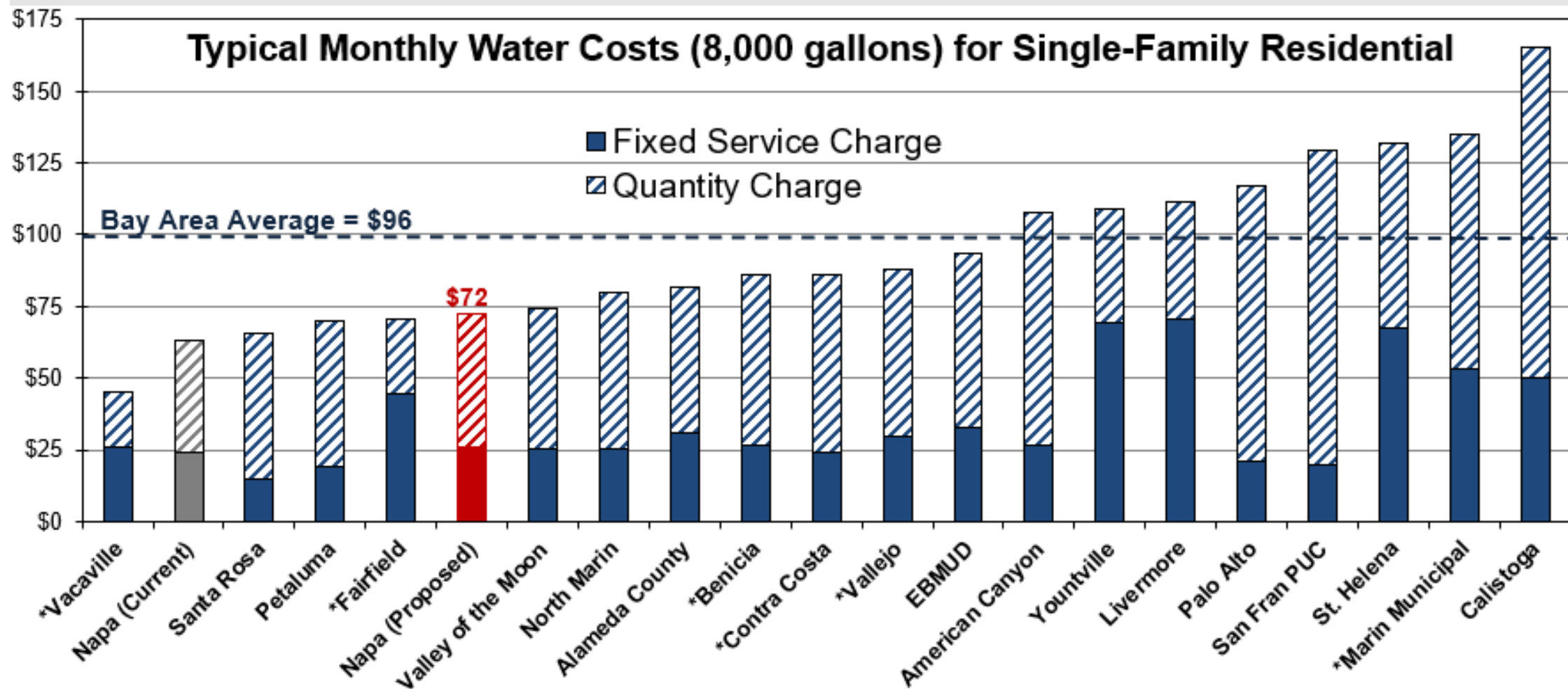
- ❑ ***RateShare Program** – \$25 per bill discount for low-income single family residential customers who are enrolled in PG&E CARE program.

- ❑ **Low Income Household Water Assistance Program (LIHWAP)** - Administered through Dept of Health & Human Services, bills are paid directly to City of Napa as eligible utility. Extended thru March 31, 2024.

* RateShare Program is funded by non-rate revenue received from cell tower leases.



Comparison to Bay Area




* Total cost is higher; a portion of capital costs are paid through property taxes.

Value of Water

What does **1 gallon** cost?



Tap Water: about a 
Delivered right to your home!



Bottled Water:
\$1.50



Milk:
\$5.43



Latte:
\$29.12



Gasoline: \$5.09

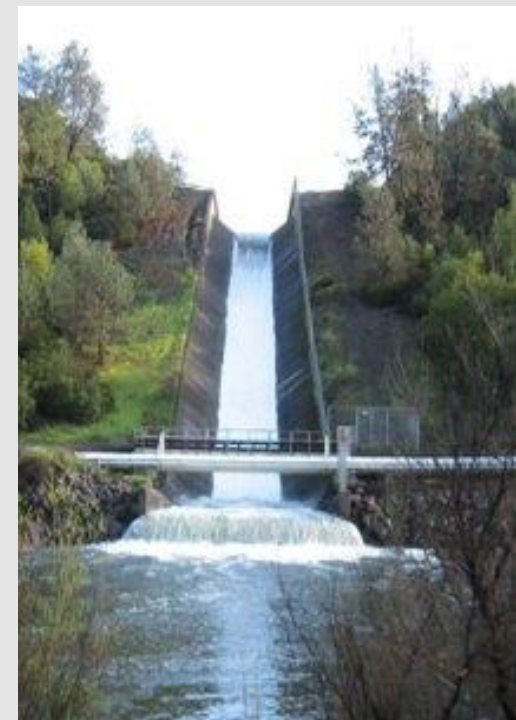
Clean, safe, reliable tap water:

- **1 penny per gallon**
- **Delivered!**

Water Enterprise Goals



- ❑ **Clean safe, reliable, low-cost water for our customers**
- ❑ **Manage the system and invest in infrastructure to:**
 - ❖ **ensure system reliability**
 - ❖ **reduce long-term O&M costs**



Next Steps



2023

- ☐ **Sept 22 – Prop 218 Notice of Public Hearing mailed**
- ☐ **Nov 6 – 45-day period for Prop 218 Noticing ends**
- ☐ **Nov 7 – Public Hearing to consider adoption of proposed rates**

2024

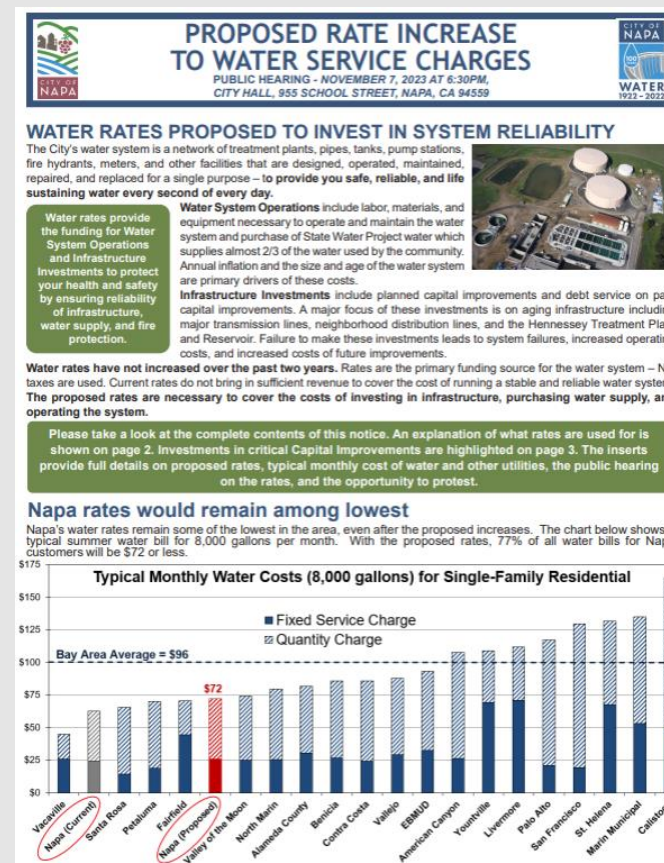
- ☐ **Jan 1– Adopted rates take effect**
- ☐ **Mar 1- First bills under new rates delivered to customers**



Requested Action



Authorize staff to provide written notice by mail of the proposed update to water rates in compliance with all requirements of state law, and schedule a Public Hearing to consider adoption of updated water rates on November 7, 2023, at 6:30 pm.



Questions or Comments

