A dynamic background image showing water being poured from a height, creating a large splash and numerous bubbles. The water is clear and bright blue, set against a white and light blue background. The overall composition is clean and modern, with a curved top edge.

Union PUD Overview of Prop 218 Process and Water Rate Study

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December 11, 2024

Presentation Overview

- Study Timeline
- Overview of Water Rate Study
- Prop 218 Process
- Questions & Answers

Study Timeline

- **March 27:** Board approval to commence rate study
- **August 5:** Workshop with Raw Water customers
- **August 15:** Finance Committee Meeting
- **August 28:** Board Meeting to consider rate alternatives
- **October 23:** Board Meeting, Prop 218 notices mailed
- **November 14:** Workshops for Raw Water and Domestic Customers
- **December 11:** Board meeting to consider adopting proposed water rates

Overview of Water Rate Study

What is the purpose of a utility rate study?

- Ensuring utility rates will be able to cover all operating and maintenance costs, including treatment costs.
- Ensuring sufficient funding for essential Capital Improvement Projects.
- Maintaining appropriate reserve funds.
- Maintaining adequate bond coverage.
- Complying with legal requirements of Prop 218.

Rate Study Methodology

1 FINANCIAL PLAN/ REVENUE REQUIREMENTS

Step 1: Financial Plan/Revenue Requirements - Compares current sources and uses of funds to determine the revenue needed from rates and projected rate adjustments.

2 COST-OF-SERVICE ANALYSIS

Step 2: Cost-of-Service Analysis - Proportionately allocates the revenue requirements to the customer classes in compliance with industry standards and State Law.

3 RATE DESIGN ANALYSIS

Step 3: Rate Design - Considers what rate structure will best meet the Authority's need to collect rate revenue from each customer class.

- This approach is widely used across the industry
- Based on industry standards embedded in two publications:
 - American Water Works Association (AWWA) M1 manual, 7th Edition (2017)
 - Water Environment Federation (WEF) Financing and Charges for Wastewater Systems, Manual of Practice 27 (2004)

Rate Study Methodology – Financial Plan

Financial Plan

Utility Revenue: The total income generated from customer service rates to cover operational expenses, debt repayments, and capital projects, minus alternative income sources like fees and fines. It includes a provision for reserves to ensure the utility's long-term financial stability and service reliability.

Operations and Maintenance (O&M) Bucket: This is the first bucket. It covers the costs of running and maintaining the service or infrastructure. The day-to-day expenses to keep things going.

Capital Reserves Bucket: Once O&M is funded, the money can flow to the next bucket. This bucket is for capital reserves, used for future significant investments or infrastructure upgrades.

Rate-Funded Capital or Other Expenditures Bucket: If there's money left over after filling the first two buckets, it can then be allocated to other areas in the water enterprise such as pay-as-you-go rate-funded capital projects.

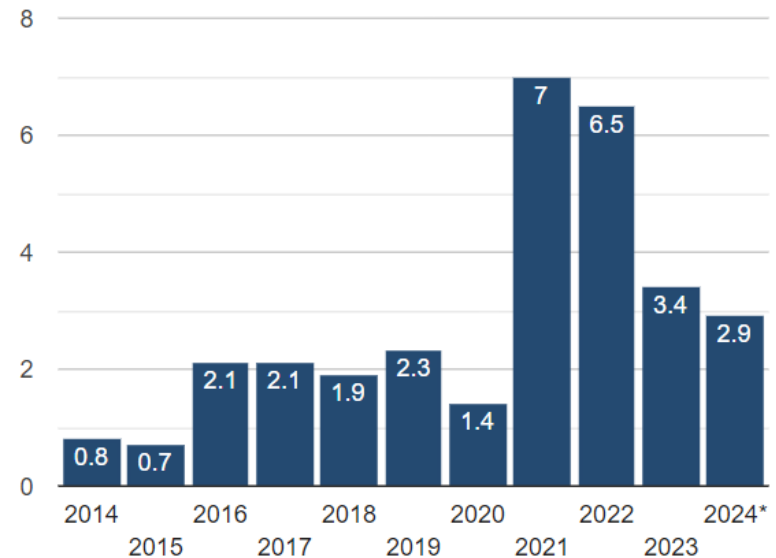
Utility Revenue



Key Considerations in Financial Plan

- **Increased costs for operations and maintenance of the water utility**
 - Inflationary costs for personnel, supplies, utilities and contract services
- **Costs for Capital Improvement Program**
 - Approximately \$8.4 million in identified capital improvement program costs over the next five years for domestic system
 - Irrigation-related capital improvement projects will commence after the five-year rate period is concluded
- **Use of Debt Financing to help pay for capital projects and help mitigate rate increases**
 - Rate model assumes debt financing of \$1.5 million in FY 24/25 and additional debt financing in FY 26/27

Chart: United States Annual Inflation Rates (2014 to 2024)



*Consumer Price Index is provided by the U.S. Department of Labor Bureau of Labor Statistics. The government agency last updated the CPI on August 14, and it covers the period up to July. CPI data for August will be released on September 11, 2024.

Overview – Cost-of-Service Analysis

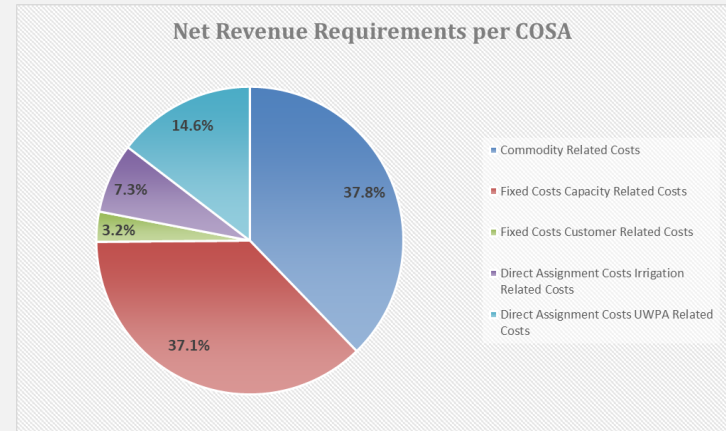
How Are Water Costs Assigned to Customers?

Cost of Service Analysis (COSA) allocates costs based on the cost to serve each type of customer.

- **Water Costs** are typically allocated by:
 1. System Capacity Costs (based on system capacity factors)
 2. Commodity Costs (annual consumption)
 3. Customer Costs (number of accounts/dwelling units)
- **Cost Allocations** – Costs are then allocated to each customer class based on their proportional share of the above criteria.

Summary of Key Considerations in COSA

- **Cost Allocations for Domestic Customers vs. Raw Water Customers**
 - NBS worked closely with staff to determine cost allocations for domestic vs. raw water customers based on District’s latest budget
 - Cost allocations are reflected in cost-of-service analysis and the rate design
- **Monthly fixed service charges aligned with AWWA hydraulic capacity factors**
- **ADU’s charged additional monthly fixed customer service charge**
- **Incorporating annual increase in Utica contribution (10% annually)**



Meter Size	Standard Meters	
	Meter Capacity (GPM) ¹	Equivalency to 3/4 inch
	<i>Displacement Meters</i>	
3/4 inch	30	1.00
1 inch	50	1.67
1 1/2 inch	100	3.33
2 inch	160	5.33
	<i>Compound Class I Meters</i>	
3 inch	320	10.67
4 inch	500	16.67
6 inch	1,000	33.33
8 inch	1,600	53.33
	<i>Turbine Class II Meters</i>	
10 inch	4,200	140.00
12 inch	5,300	176.67

1. Per AWWA, M1 Manual, Table B-1.

Rate Design Objectives

What are Rate Design Objectives?

- Rates are proportional to cost of service (i.e., the cost to serve each customer class)
- The San Juan Capistrano court decision (2015) mandated that rates “demonstrate the cost basis” in order to comply with Prop 218
 - Primarily related to tiered water rates
 - Basic principles apply to all rates
- Equitable & non-discriminating
- Ease of administration and understanding
- Provide revenue stability

Note: AWWA Manual M1 mentions that other community values and interests may also be considered such as conservation, low-income assistance, etc.

Rate Design – Fixed Charges

Calculation of Fixed Service Charges

The fixed meter charge recognizes that the water utility incurs fixed costs regardless of whether customers use water.

Two components comprise the fixed meter charge:

- (1) the capacity component, and
 - (2) the customer component.
- The **capacity component** recovers infrastructure costs associated with sizing the water system to ensure there is sufficient system capacity to meet peak demand. A user class with higher-capacity factor is allocated a proportionately higher share of the capacity-related costs compared to customer classes with lower a capacity factor.
 - The **customer component** includes those costs related to reading and maintaining meters, customer billing and collection, and other customer service-related costs.

Rate Design – Fixed Charges (cont.)

Calculation of Fixed Service Charges

- Meter sizes have different fixed charges based on the capacity requirements of each size meter connected to the system.
- This is because larger meters have the potential to use more of the system's capacity.
- The potential capacity demanded is proportional to the maximum hydraulic flow through each meter size as established by the AWWA hydraulic capacity ratios.

Meter Size	Standard Meters	
	Meter Capacity (GPM) ¹	Equivalency to 3/4 inch
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3/4 inch	30	1.00
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1. Per AWWA, M1 Manual, Table B-1.

Rate Design – Volumetric Charges

Commodity-Related (volumetric) costs are those that change with the volume of water produced and delivered. These commonly include the costs of energy related to pumping for transmission and distribution, source of supply, water quality testing, etc.

Customer Classes	Water Consumption (HCF/yr)	Total Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/HCF)	Proposed Rate Structure
Domestic	324,679	\$ 648,443	23.3%	\$2.00	Uniform
Raw Water	509,576	57,608	2.1%	\$0.11	Uniform
Total Water	834,255	\$ 706,051	25.4%		

Proposed Rates

Water Rate Schedule	Current Rates	Proposed Rates				
		January 1, 2025	January 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029
Water Usage Charges (in \$/HCF)						
Domestic/Potable Water	\$1.04	\$2.00	\$2.20	\$2.39	\$2.54	\$2.69
Raw/non-potable Water	\$0.09	\$0.10	\$0.10	\$0.11	\$0.12	\$0.12
Monthly Fixed Service Charges (in \$/mo)						
Domestic Service Charge						
5/8" or 3/4"	\$62.86	\$67.98	\$74.78	\$81.51	\$86.40	\$91.58
1"	\$94.15	\$110.81	\$121.89	\$132.86	\$140.83	\$149.28
1.5"	\$172.39	\$217.88	\$239.66	\$261.23	\$276.91	\$293.52
2"	\$266.28	\$346.36	\$381.00	\$415.29	\$440.20	\$466.62
3"	\$485.34	\$688.98	\$757.88	\$826.09	\$875.66	\$928.20
4"	\$798.28	\$1,074.43	\$1,181.88	\$1,288.25	\$1,365.54	\$1,447.47
6"	\$1,580.65	\$2,145.13	\$2,359.64	\$2,572.01	\$2,726.33	\$2,889.91
Raw Water Service Charge						
5/8" or 3/4"	\$32.83	\$35.65	\$37.97	\$40.43	\$43.06	\$45.86
1"	\$45.16	\$56.92	\$60.62	\$64.56	\$68.76	\$73.23
1.5"	\$75.97	\$110.11	\$117.26	\$124.88	\$133.00	\$141.65
2"	\$112.95	\$173.93	\$185.23	\$197.27	\$210.09	\$223.75
3"	\$199.24	\$344.11	\$366.48	\$390.30	\$415.67	\$442.69
4"	\$322.51	\$535.58	\$570.39	\$607.46	\$646.95	\$689.00
6"	\$630.67	\$1,067.41	\$1,136.80	\$1,210.69	\$1,289.38	\$1,373.19
Customer Service Charge (\$/mo/dwelling unit)						
Customer Service Charge - Per Each Additional Dwelling Unit or Parcel	N/A	\$3.74	\$4.11	\$4.48	\$4.75	\$5.04
UPWA Fee (\$/mo)						
UPWA Fee - All Customers, Per Equivalent Dwelling Unit or Parcel	\$18.00	\$16.20	\$17.47	\$18.85	\$20.32	\$21.92

Benefits of successful rate adoption process

Benefits of a successful Proposition 218 will come back into the hands of the customers UPUD serves:

Uphold forward progress on water sustainability.

Promote investment in surface water infrastructure and a skilled workforce for its operation and maintenance.

Uphold the defense of our water rights.

Develop long-term strategies for water resource management.



**WATER
SUSTAINABILITY**



**WATER
INFRASTRUCTURE**



**LEGAL AND WATER
RIGHTS DEFENSE**

Prop 218 Process for Utility Rates

1. Board Approve Rate Study Report & Proposed Rates
October 23, 2024

3. Hold a Public Hearing to Consider / Approve New Rates
December 11, 2024



2. Board Direct Staff to Send Out Prop 218 Notices
(45-day noticing period)

4. Adopt New Rates Effective January 1, 2025
(assuming no successful Prop 218 challenge)

Thank you!



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