





Draft Final Water Rate Study

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Agenda

-  Methodology
-  Financial Plan
-  Cost-of-Service Analysis
-  Proposed Rates

Rate Study Methodology

Financial Plan

This step examines how much money the District has coming in and what's going out. It helps figure out how much the District needs to charge for its services and thinks about any changes that might need to be made in the future.

Cost of Service Analysis

Here, the District works out how to fairly split the cost of its services between all the people who use them. It's about making sure everyone pays an amount that's right for the service they get, and that all laws and regulations are followed.

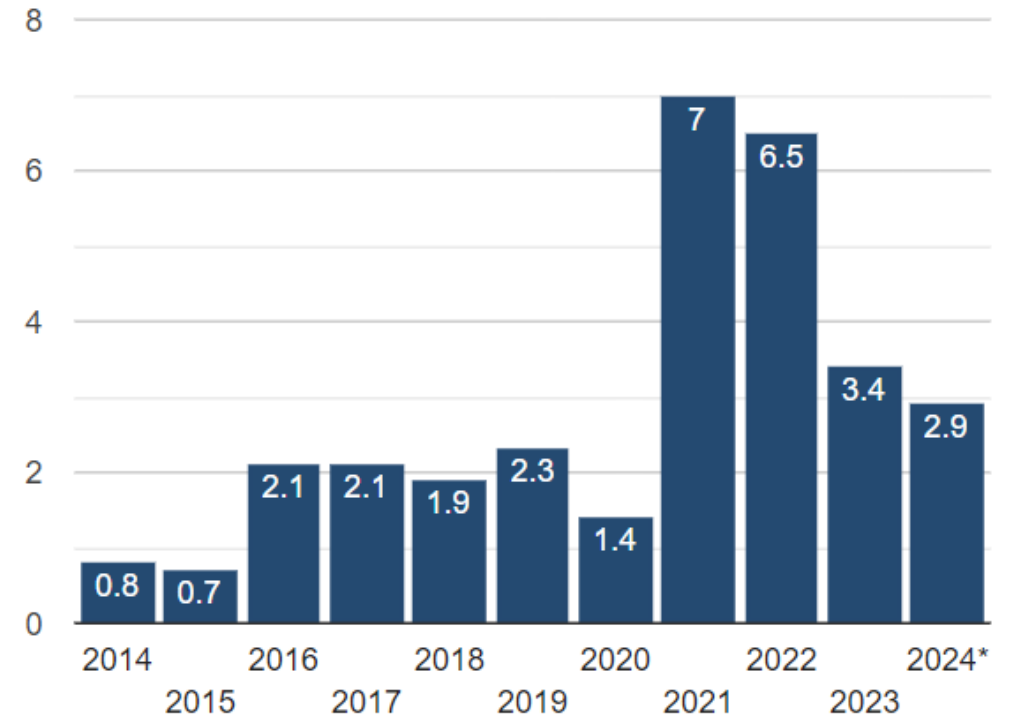
Rate Design Analysis

The last part is about deciding the best way to charge people for District services so that the District collects enough money to cover its costs. It's all about creating a fair system that works for everyone.

Summary of 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.

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.

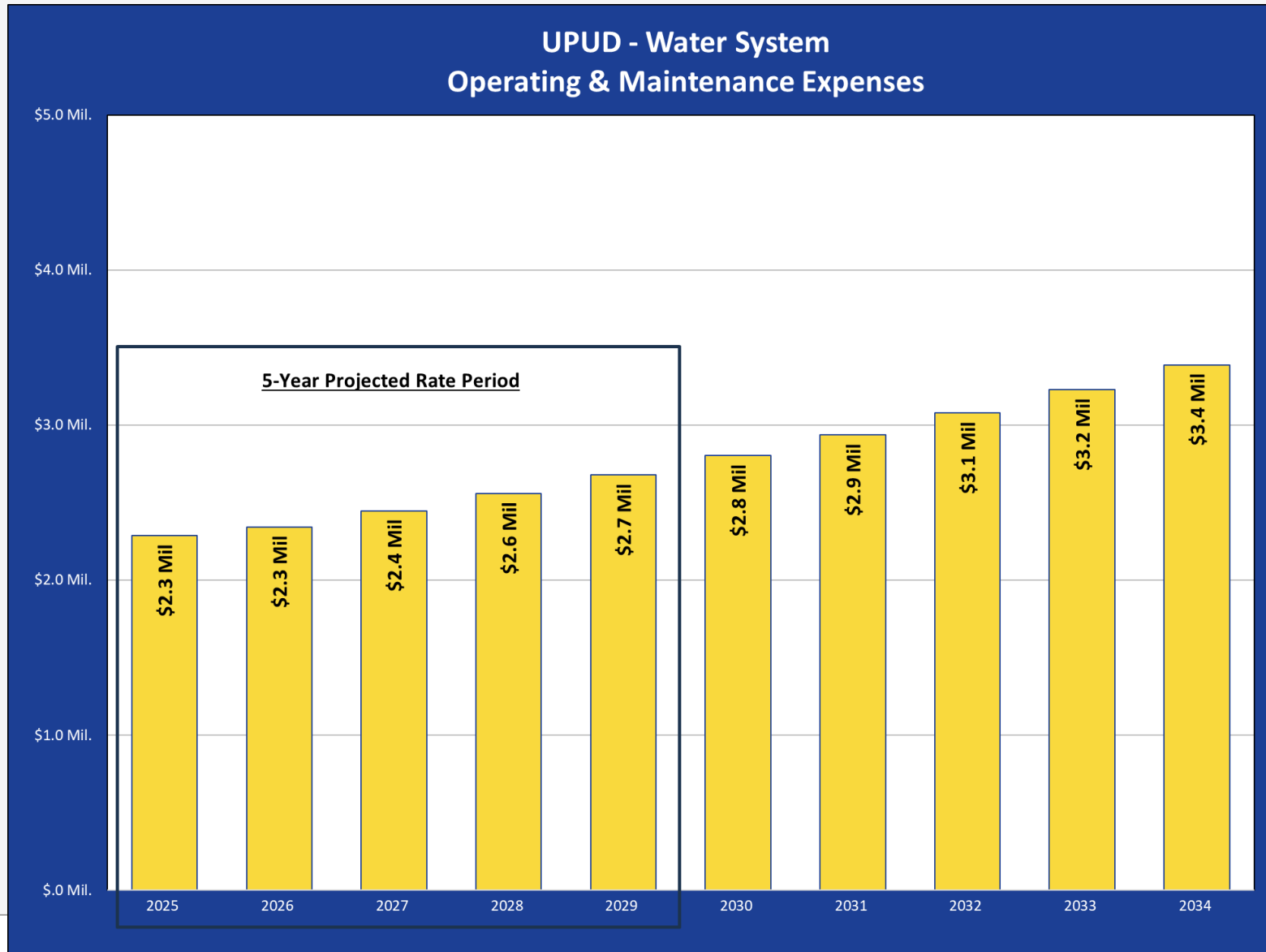
Capital Reserves Bucket: Once O&M is funded, the money can flow to the next bucket. This bucket is for capital reserves, used for future significant investments or infrastructure upgrades.

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

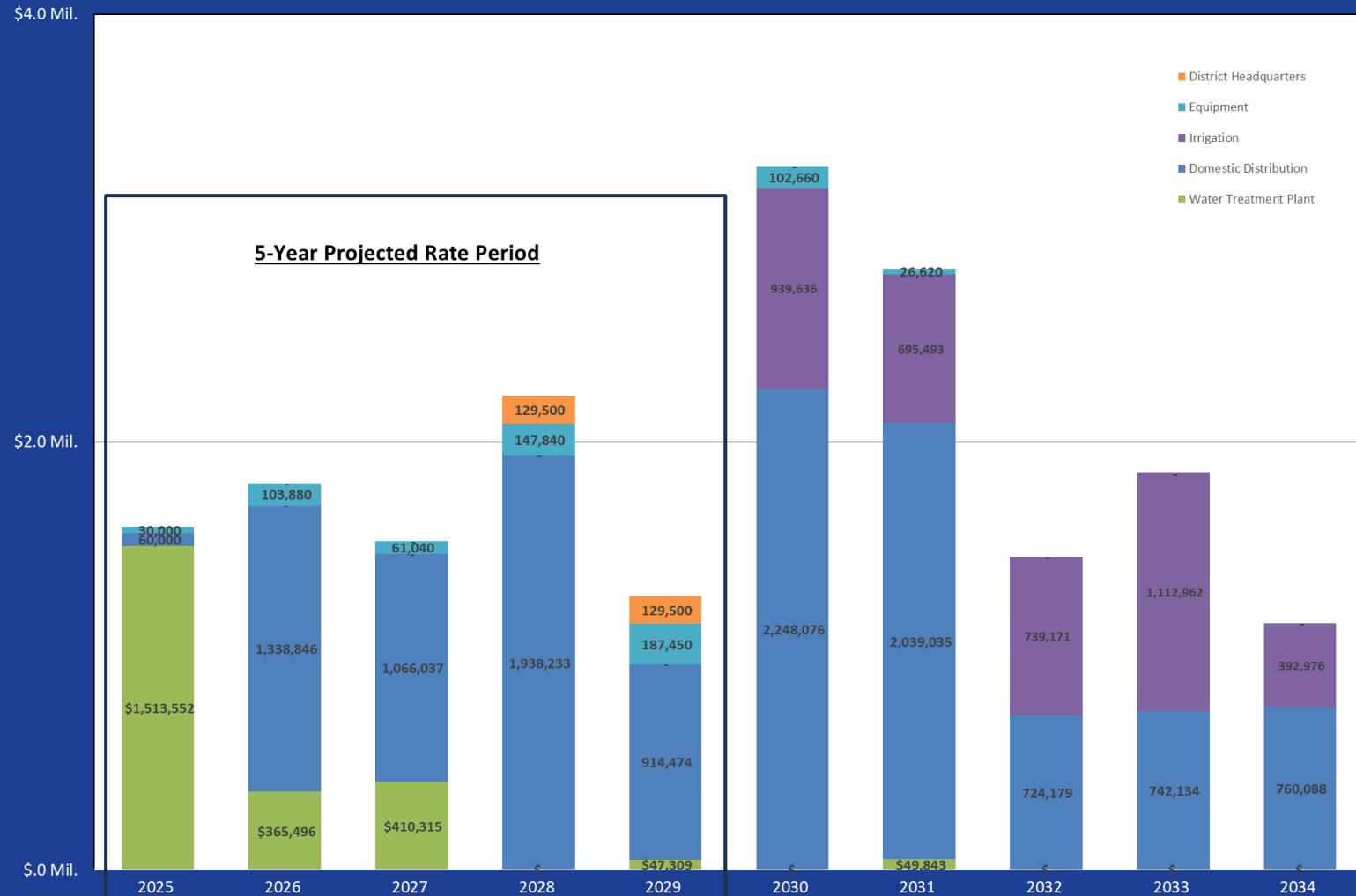


Financial Plan – O&M Expenses



Financial Plan – CIP

UPUD - Water System Capital Improvement Projects



Financial Plan Summary – Board Selected Alternative

Summary of Sources and Uses of Funds and Net Revenue Requirements	Budget	5-Year Projected Rate Period				
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
Sources of Water Funds						
Water Sales	\$ 2,151,277	\$ 2,276,582	\$ 2,351,726	\$ 2,431,335	\$ 2,515,792	\$ 2,605,523
Connection Fees	56,000	14,000	-	-	-	-
Interest Earnings	430,200	240,200	245,004	249,904	254,902	260,000
Total Sources of Funds:	\$ 2,637,477	\$ 2,530,782	\$ 2,596,730	\$ 2,681,239	\$ 2,770,695	\$ 2,865,523
Uses of Water Funds						
Operating Expenses	\$ 2,377,477	\$ 2,286,498	\$ 2,343,152	\$ 2,448,140	\$ 2,559,411	\$ 2,677,453
Debt Service	-	-	140,038	140,038	210,057	210,057
Rate-Funded Capital Expenses	367,630	-	-	89,001	757,960	1,052,269
Total Use of Funds:	\$ 2,745,107	\$ 2,286,498	\$ 2,483,190	\$ 2,677,179	\$ 3,527,428	\$ 3,939,779
Surplus (Deficiency) before Rate Increase	\$ (107,630)	\$ 244,284	\$ 113,540	\$ 4,060	\$ (756,733)	\$ (1,074,257)
Additional Revenue from Rate Increases ¹	-	126,539	400,883	700,108	971,630	1,221,275
Surplus (Deficiency) after Rate Increase	\$ (107,630)	\$ 370,823	\$ 514,424	\$ 704,167	\$ 214,897	\$ 147,018
Projected Annual Rate Increase	0.00%	10.00%	10.00%	9.00%	6.00%	6.00%
<i>Cumulative Rate Increases</i>	0.00%	10.00%	21.00%	31.89%	39.80%	48.19%
Net Revenue Requirement²	\$ 2,258,907	\$ 2,032,298	\$ 2,238,186	\$ 2,427,275	\$ 3,272,526	\$ 3,679,779

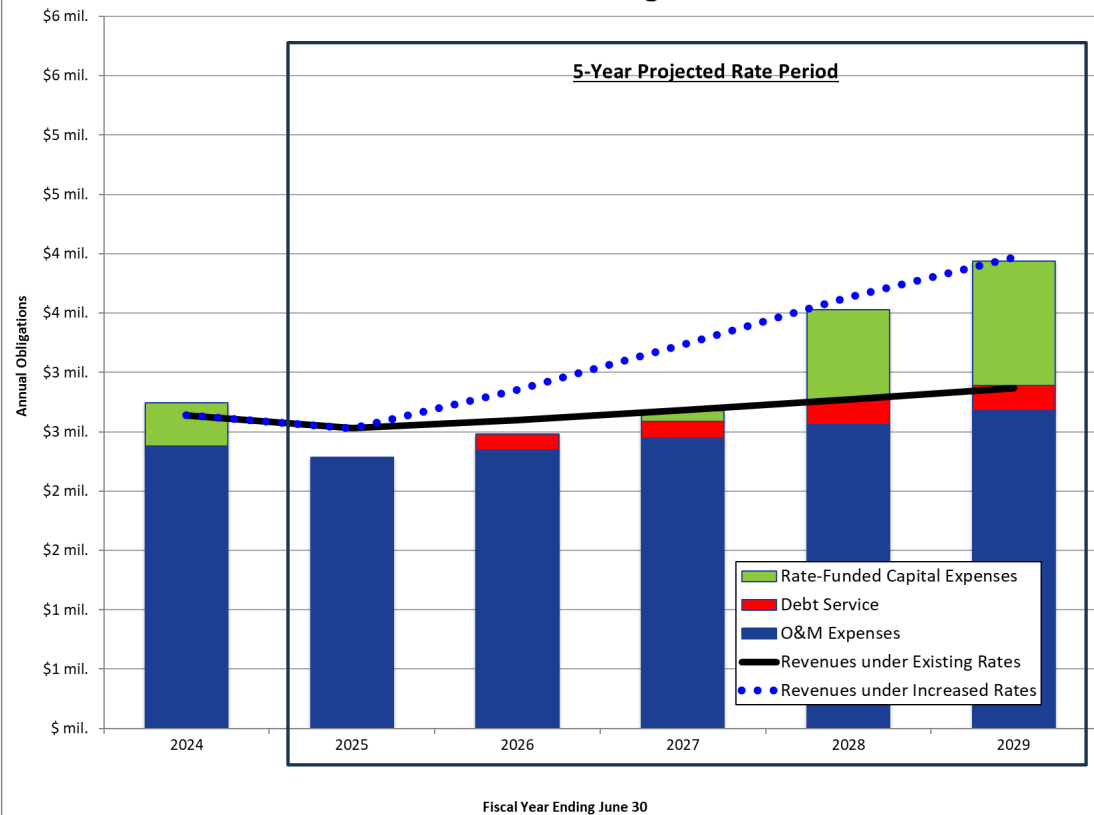
1. Assumes new rates are implemented January 1, 2025.

2. This is the annual amount needed from water rates. [Net Revenue Requirement = Total Use of Funds - (Non-Rate Revenues + Interest Earnings)].

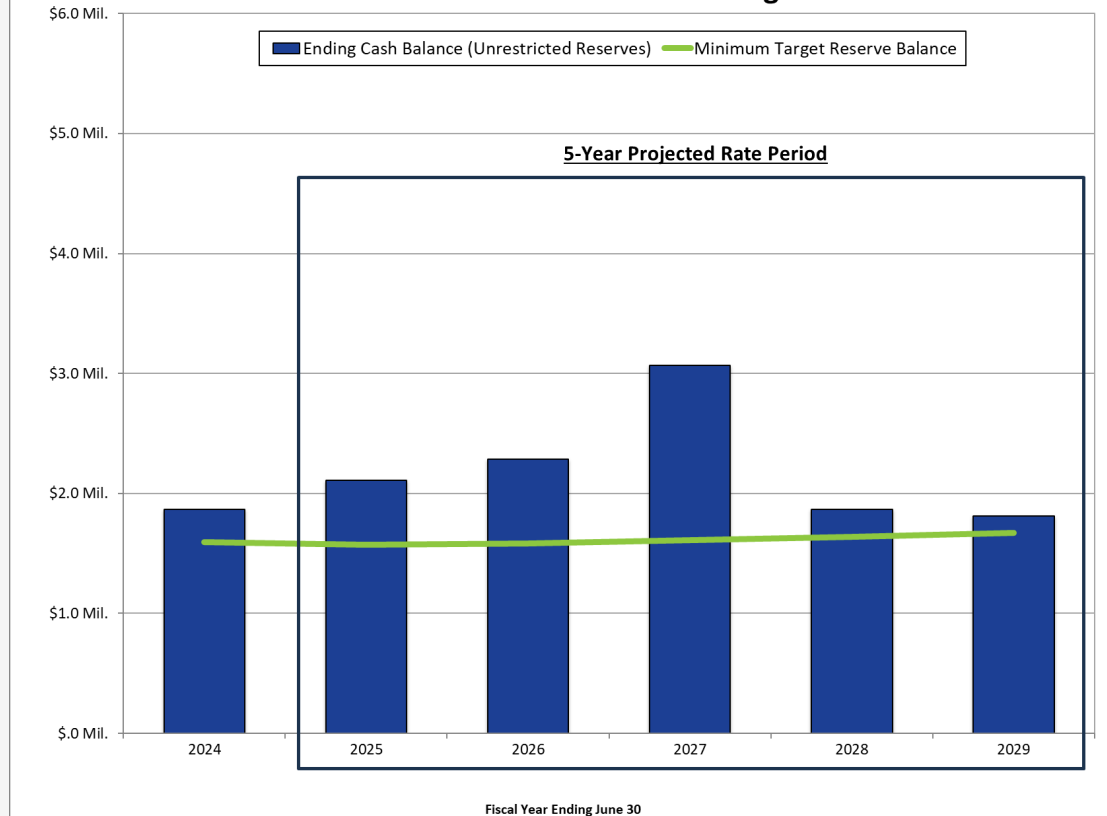
Note: Model assumes debt financing of \$1.5 million in FY 24/25 and additional debt financing of \$750k in FY 26/27

Financial Plan Summary – Board Selected Alternative

Water Revenue Requirements vs. Revenue Under Existing and Increased Rates



Ending Cash Balances vs. Recommended Reserve Targets



Methodology – COSA and Rate Design

What are the objectives?

- Rates are ***proportional to cost of service*** (i.e., the cost to serve each customer or customer class)
- The San Juan Capistrano court decision (2015) mandated that rates “demonstrate the cost basis” 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***



Overview: Cost-of-Service Analysis (COSA)

How Are Water Costs Assigned to Customers?

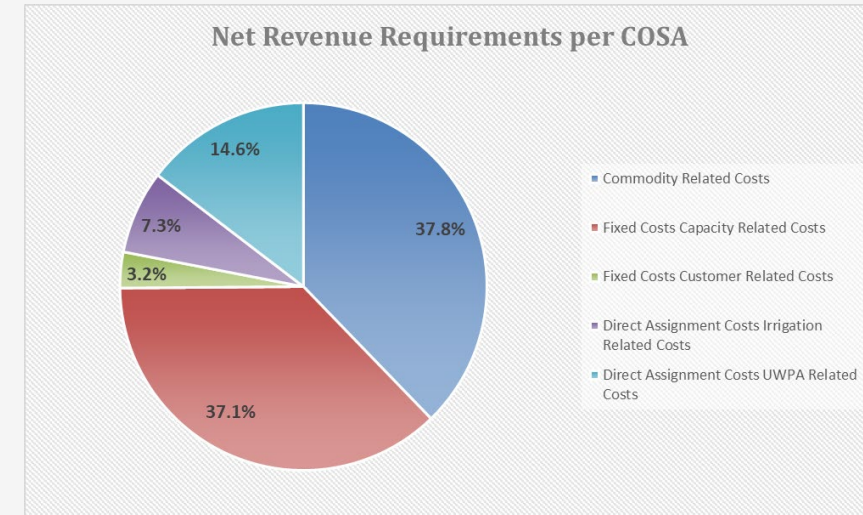
Cost of Service Analysis (COSA) allocates costs based on the cost to serve each type of customer.

- **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)
- **Cost Allocations** – Costs are then allocated to each customer class based on their proportional share of the above criteria.

Net Revenue Requirements - Per COSA Results	Total Rate Revenue Requirements FY 2025/26	Commodity Related Costs	Fixed Costs		Direct Assignment Costs	
			Capacity Related Costs	Customer Related Costs	Raw Water Related Costs	UWPA Related Costs
Rate-Design Adjustments to Fixed/Variable %	100.0%	37.9%	36.9%	3.2%	7.3%	14.6%
Rate-Design Adjustments to Fixed/Variable (\$)	\$2,783,860	\$1,056,439	\$1,027,934	\$89,623	\$202,864	\$407,000

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 draft rate design
- **Monthly fixed service charges aligned with AWWA hydraulic capacity factors**
- **ADU’s charged additional monthly fixed service charge at 5/8” meter rate**
- **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.

COSA – Monthly Fixed Meter Service Charges

Calculation of Monthly Fixed Meter Service Charges

Number of Meters by Class and Size ¹	FY 2024/25							Total
	5/8 - 3/4" meter	1" meter	1.5" meter	2" meter	3" meter	4" meter	6" meter	
Residential	1,563	16	1	2	0	0	1	1,582
Commercial	135	16	3	5	1	1	0	161
Total Meters/Accounts	1,698	32	4	7	1	1	1	1,743
<i>Hydraulic Capacity Factor</i> ²	1.00	1.67	3.33	5.33	10.67	16.67	33.33	
Total Equivalent Meters	1,698	53	13	37	11	17	33	1,863
Monthly Fixed Service Charges								
Customer Costs (\$/Acct/month) ³	\$3.74	\$3.74	\$3.74	\$3.74	\$3.74	\$3.74	\$3.74	\$3.74
Capacity Costs (\$/Acct/month) ⁴	\$64.24	\$107.07	\$214.14	\$342.62	\$685.24	\$1,070.70	\$2,141.39	
UPWA Costs (\$/Acct/month) ⁵	\$18.36	\$18.36	\$18.36	\$18.36	\$18.36	\$18.36	\$18.36	\$18.36
Total Monthly Meter Charge	\$67.98	\$110.81	\$217.88	\$346.36	\$688.98	\$1,074.43	\$2,145.13	
Annual Fixed Costs Allocated to Monthly Meter Charges								
Customer Costs	\$ 84,958							
Capacity Costs	1,435,931							
UPWA Costs	384,095							
Total Fixed Meter Costs	\$ 1,904,984							
Annual Revenue from Monthly Meter Charges								
Customer Charges	\$ 76,166	\$ 1,435	\$ 179	\$ 314	\$ 45	\$ 45	\$ 45	\$ 78,229
Capacity Charges	\$ 1,308,989	\$ 41,115	\$ 10,279	\$ 28,780	\$ 8,223	\$ 12,848	\$ 25,697	\$ 1,435,931
UPWA Charges	\$ 374,179	\$ 7,052	\$ 881	\$ 1,543	\$ 220	\$ 220	\$ 220	\$ 384,316
Total Revenue from Monthly Meter Cha	\$ 1,385,155	\$ 42,550	\$ 10,458	\$ 29,094	\$ 8,268	\$ 12,893	\$ 25,742	\$ 1,898,476

1. Meter by Class and Size are based on June 2023 customer billing data.
2. Source: *Principles of Water Rates, Fees, and Charges*, Manual M1, AWWA, Table B-1.
3. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
4. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.
5. UPWA costs are allocated to each customer by dividing the total customer costs by the total number of customers.

COSA – Volumetric Charges

Calculation of Volumetric Charges (CY 2025)

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%		

Summary of COSA Net Revenue Requirements by Customer Class (CY 2025)

Customer Class	Estimated Consumption	Estimated Variable Revenue	% of Variable Rate Revenue	Estimated Fixed Revenue		Total Estimated	Cost of Service Net Revenue
				Fixed Charges	UPWA Charges		
Residential	275,136	\$ 549,496	77.8%	\$ 1,286,180	\$ 348,637	\$ 2,184,313	\$ 2,191,297
Commercial	49,543	98,947	14.0%	\$ 234,709	\$ 35,458	\$ 369,114	362,130
Raw Water	509,576	57,608	8.2%	\$ 149,921	\$ 22,905	\$ 230,434	230,434
Grand Total	834,255	\$ 706,051	100.0%	\$ 1,670,809	\$ 407,000	\$ 2,783,860	\$ 2,783,860

Proposed Rates – Board Selected Alternative

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

For Board Discussion – UWPA Fee

The UWPA Charge is designed to be a “pass-through” that covers the costs of the District’s projected contribution amounts to UWPA for delivery of surface water.

The District would be required to notify customers of the proposed pass-through policy in a Proposition 218 notification letter. If the policy passes the Proposition 218 adoption requirements, the District will be authorized to recalculate the UWPA Fee to account for any changes in the UWPA contribution in future years during the five-year rate adoption period.

Such an adjustment will not require a public hearing or any additional action by the District Board; however, the District will be required to provide customers with notice of the expected adjustment at least 30 days before the effective date of the adjustment.

Options before the Board for discussion & feedback:

- 1. Keep it as currently written. Notify customers of the proposed pass-through policy in the Prop 218 letter.**
- 2. Take a more conservative approach, stating that the District will start a new Prop 218 process specifically for the UWPA fee if it needs to be increased beyond the current schedule.**

Proposed Rates – Emergency Response Charges

The District is obligated to meet its annual net revenue requirements regardless of whether consumption levels decline due to State mandated conservation or other unexpected events (e.g., natural disasters, wildfire, catastrophic infrastructure failure, etc.).

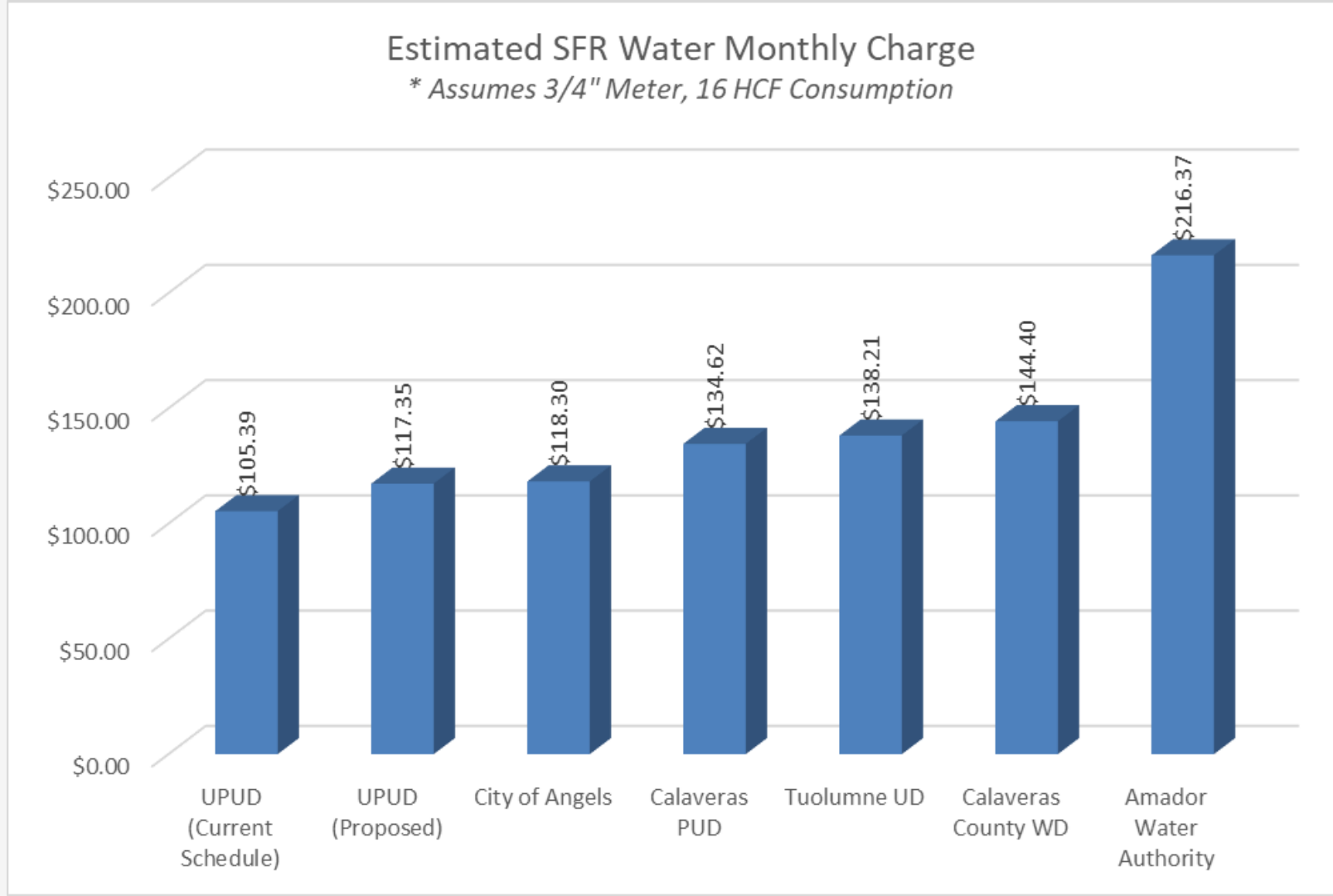
Even if consumption levels decline, the District will continue to incur fixed costs and must have a revenue-neutral mechanism to ensure fiscal sustainability. To this end, emergency responses rates are intended to maintain the necessary level of revenues.

Emergency response charge requires approval by the Board prior to implementation.

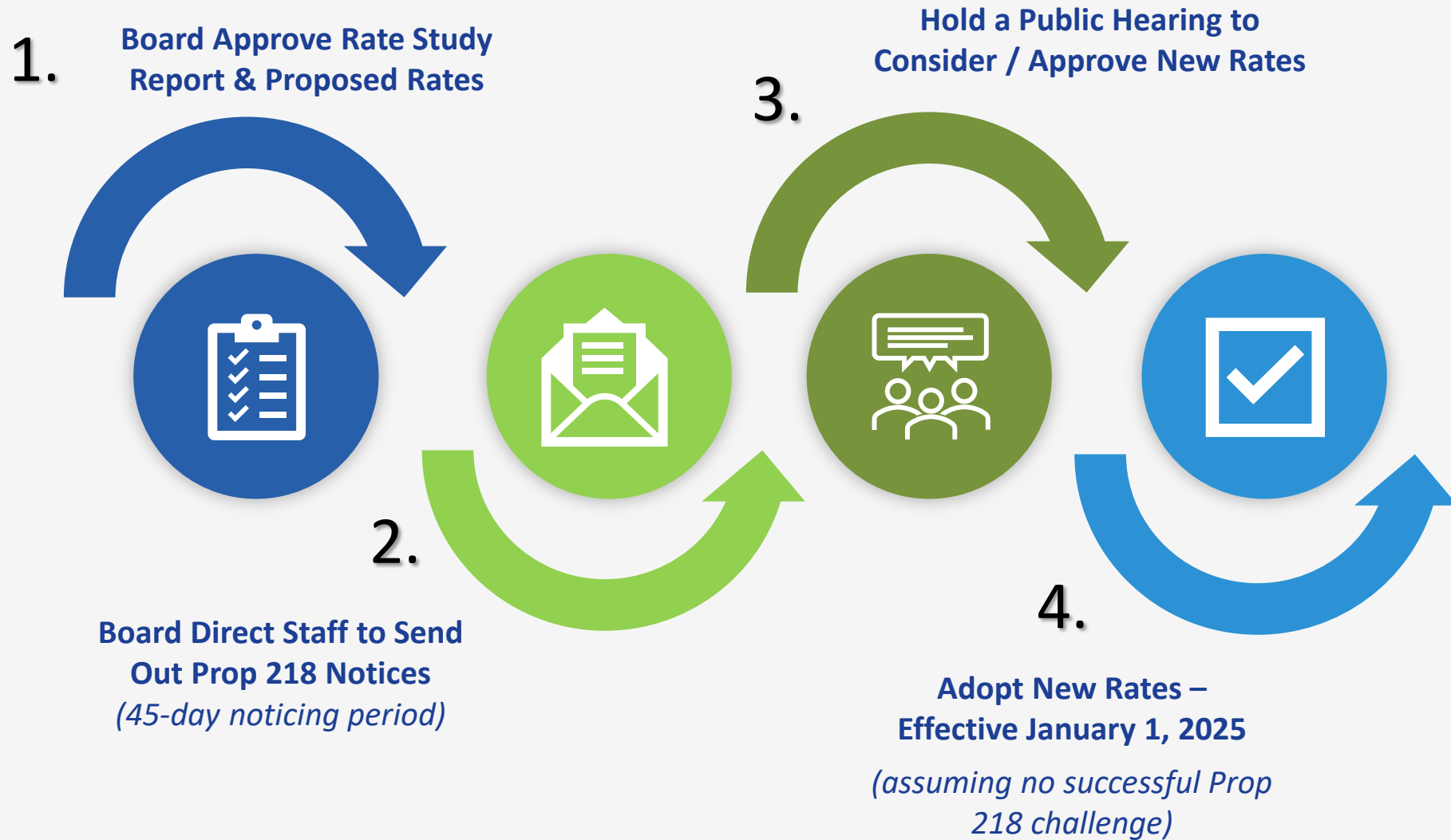
Rate Structure: Potable Water					
Emergency Response Charge (\$/HCF)					
Conservation Goal	2025	2026	2027	2028	2029
< 10%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Up to 20%	\$0.22	\$0.24	\$0.27	\$0.28	\$0.30
Up to 30%	\$0.50	\$0.55	\$0.60	\$0.63	\$0.67
Up to 40%	\$0.86	\$0.94	\$1.03	\$1.09	\$1.15
Up to 50%	\$1.33	\$1.46	\$1.60	\$1.69	\$1.79
> 50%	\$2.00	\$2.20	\$2.39	\$2.54	\$2.69

Rate Structure: Irrigation/Raw Water					
Emergency Response Charge (\$/HCF)					
Conservation Goal	2025	2026	2027	2028	2029
< 10%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Up to 20%	\$0.01	\$0.01	\$0.02	\$0.02	\$0.02
Up to 30%	\$0.03	\$0.03	\$0.03	\$0.04	\$0.04
Up to 40%	\$0.05	\$0.05	\$0.06	\$0.06	\$0.07
Up to 50%	\$0.08	\$0.08	\$0.09	\$0.10	\$0.10
> 50%	\$0.11	\$0.12	\$0.14	\$0.14	\$0.15

Regional Domestic Bill Comparison



Prop 218 Process for Utility Rates



Questions and Answers

