



PALMDALE WATER DISTRICT
A CENTURY OF SERVICE

Water Rate Study

Palmdale Water District

ROBERT D. NIEHAUS, INC.

AUGUST 12, 2024

Agenda

- **Review Schedule**
- **Present Financial Plan**
- **Present Changes to Rate Structure**
- **Proposed Rates**
- **Rate Impacts**

Schedule

- **August 12 – Rate Recommendations**
- **September 16 – Receive Report and Approve Proposition 218 Notice**
 - Remote Workshop for Ratepayers (Review of Rate Study) October 7 5:00pm
 - On-site Workshop for Ratepayers (Reasoning of Rate Study) October 23 5:00pm
- **November 4 – Rate Hearing and Approval**



Water Financial Plan Review

Scenario 1 - Status Quo – No revenue adjustments

Scenario 2 – Fund Debt Service and CIP – Financial plan includes funding proposed debt service and CIP

Each scenario will include the following sections:

- CIP
- Operating Position
- Ending Balance
- Coverage Ratio



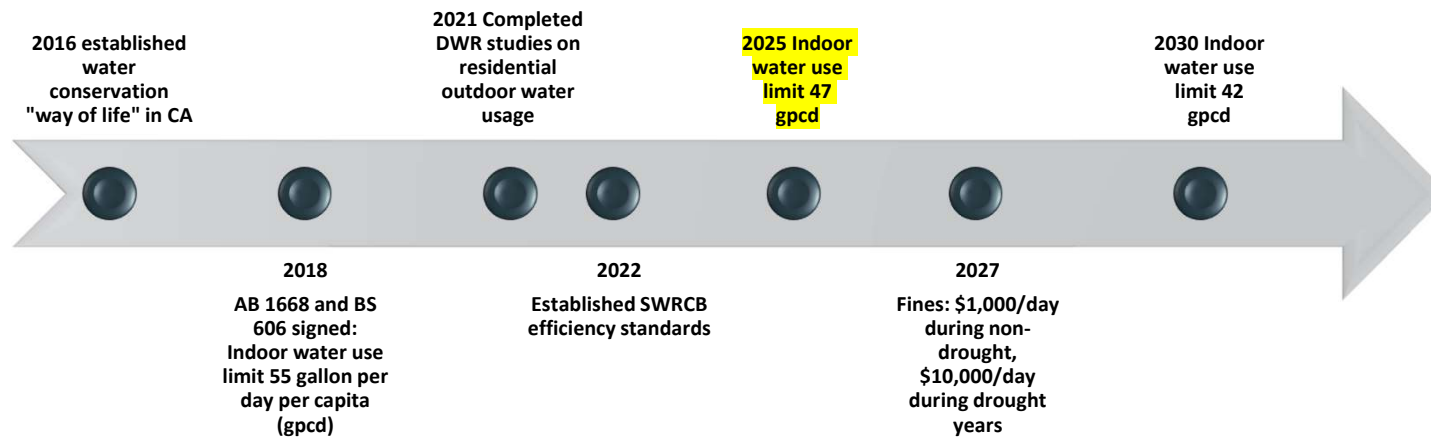
Debt Funded Capital Projects

- 2023A Revenue Bonds
 - 3M Booster Station ~\$6.3 Million
 - Well 36 ~\$4.5 Million
 - Avenue Q Recycled Pipeline ~\$1.3 Million
- 2024A Revenue Bonds
 - Demonstration Facility ~\$25 Million
- Pure Water AV
 - \$215 million over 4 years
- New Well
 - \$7 million



Water Budget Regulations

- State mandating indoor water budget reductions



Target Reserves (Policy)

Reserve	Policy	2024 Target
Capital Improvement Fund	Capacity Fee Revenue	No Target
Bond Proceed Fund	Debt Proceeds	No Target
Debt Service Reserve Fund	Based on Debt	\$ 1,469,000
Rate Stabilization Fund	20% of annual debt service max \$2.5 million	\$ 854,634
Dam Self Insurance	\$5 million	\$ 5,000,000
O&M Operating Reserve	3 Months Operating	\$ 7,510,283
O&M Emergency Reserve	3 Months Operating	\$ 7,510,283
Unrestricted Reserve	Additional Cash	No Target
Total		\$ 22,344,200
Projected 2024 Ending Balance		\$ 17,066,333



Debt Service

Description	Category	Current?	Funding Source	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
Water Revenue Bonds - Series 2018A	Principal	Yes	Rates	\$275,000	\$290,000	\$305,000	\$320,000	\$335,000	\$350,000
Water Revenue Bonds - Series 2018A	Interest	Yes	Rates	\$545,794	\$532,044	\$517,544	\$502,294	\$486,294	\$469,544
2020 IPA	Principal	Yes	Rates	\$13,776	\$14,229	\$14,698	\$15,181	\$15,681	\$16,196
2020 IPA	Interest	Yes	Rates	\$294,105	\$293,652	\$293,183	\$292,700	\$292,200	\$291,684
2020 TX Bonds	Principal	Yes	Rates	\$170,000	\$170,000	\$170,000	\$175,000	\$180,000	\$180,000
2020 TX Bonds	Interest	Yes	Rates	\$386,290	\$384,305	\$381,894	\$378,870	\$375,476	\$371,299
Water Revenue Bonds - Series 2021A	Principal	Yes	Rates	\$0	\$0	\$0	\$0	\$0	\$0
Water Revenue Bonds - Series 2021A	Interest	Yes	Rates	\$299,725	\$299,725	\$299,725	\$299,725	\$299,725	\$299,725
2021 TX IPA	Principal	Yes	Rates	\$212,890	\$2,426,140	\$2,467,760	\$2,499,270	\$2,540,760	\$0
2021 TX IPA	Interest	Yes	Rates	\$155,246	\$151,989	\$114,869	\$77,112	\$38,874	\$0
2022 ISA	Principal	Yes	Rates	\$463,073	\$479,423	\$496,349	\$513,873	\$0	\$0
2022 ISA	Interest	Yes	Rates	\$64,328	\$47,979	\$31,052	\$13,528	\$0	\$0
Water Revenue Bonds - Series 2023A	Principal	Yes	Rates	\$0	\$0	\$0	\$0	\$0	\$0
Water Revenue Bonds - Series 2023A	Interest	Yes	Rates	\$997,743	\$984,075	\$984,075	\$984,075	\$984,075	\$984,075
Water Revenue Bonds - Series 2024A	Principal	Yes	Rates	\$0	\$0	\$0	\$0	\$0	\$1,275,000
Water Revenue Bonds - Series 2024A	Interest	Yes	Rates	\$395,201	\$942,200	\$942,200	\$942,200	\$942,200	\$942,200
2024 WIFIA Loan	Principal	No	Rates	\$0	\$0	\$0	\$0	\$0	\$0
2024 WIFIA Loan	Interest	No	Rates	\$0	\$0	\$354,822	\$709,643	\$709,643	\$709,643
Water Revenue Bonds - 2026	Principal	No	Rates		\$0	\$0	\$295,000	\$830,000	\$2,240,000
Water Revenue Bonds - 2026	Interest	No	Rates		\$0	\$3,927,458	\$4,284,500	\$4,269,750	\$4,228,250
2026 WIFIA Loan	Principal	No	Rates					\$0	\$0
2026 WIFIA Loan	Interest	No	Rates					\$0	\$0
Total Rate Funded Principal Water				\$1,134,739	\$3,379,792	\$3,453,807	\$3,818,324	\$3,901,441	\$4,061,196
Total Rate Funded Interest Water				\$3,138,432	\$3,635,968	\$7,846,823	\$8,484,647	\$8,398,237	\$8,296,278

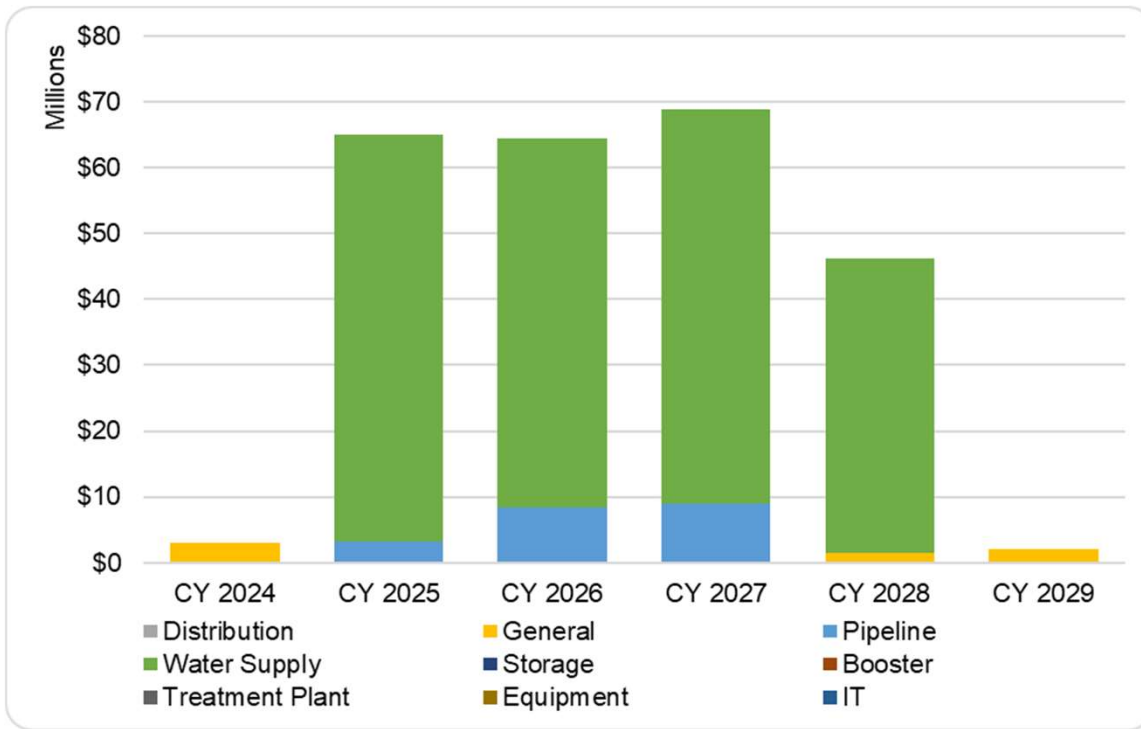


Debt Requirements

- **Parity Certificate (WIFIA) (June 17, 2024)**
 - Must Maintain Debt service coverage ratio of 1.10
 - Must increase rates no less than:

	FY 2025	FY 2026	FY 2027	FY 2028
Minimum Adjustment	9.3%	9.0%	8.5%	8.5%

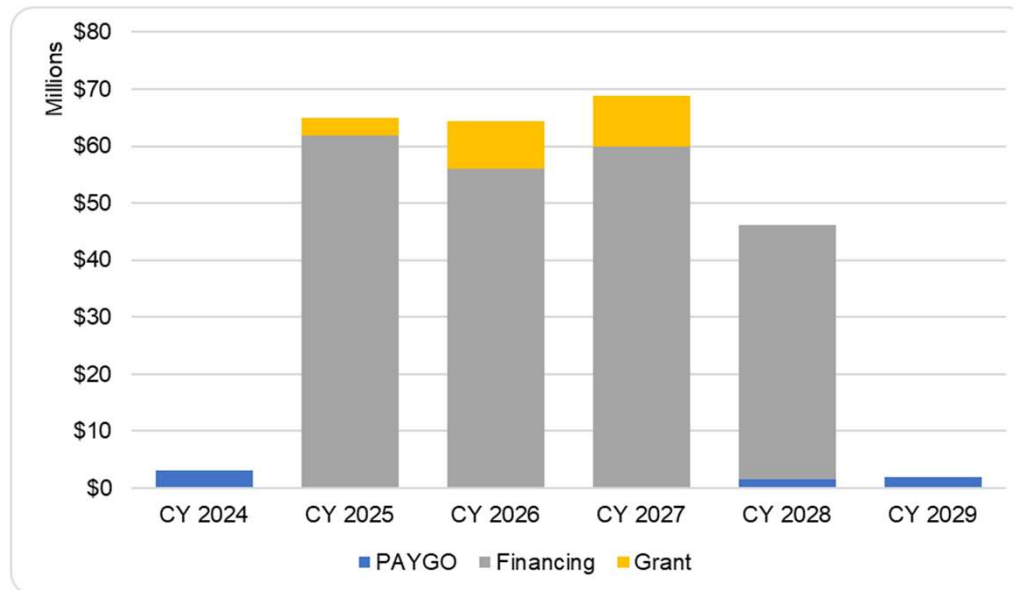




Water Capital Planning

Category	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
General	\$3,022,000	\$0	\$0	\$0	\$1,500,000	\$2,000,000
Pipeline	\$0	\$3,175,530	\$8,403,326	\$8,895,004	\$0	\$0
Water Supply	\$0	\$61,841,321	\$56,063,376	\$59,892,613	\$44,623,535	\$0
Total	\$3,022,000	\$65,016,851	\$64,466,702	\$68,787,618	\$46,123,535	\$2,000,000

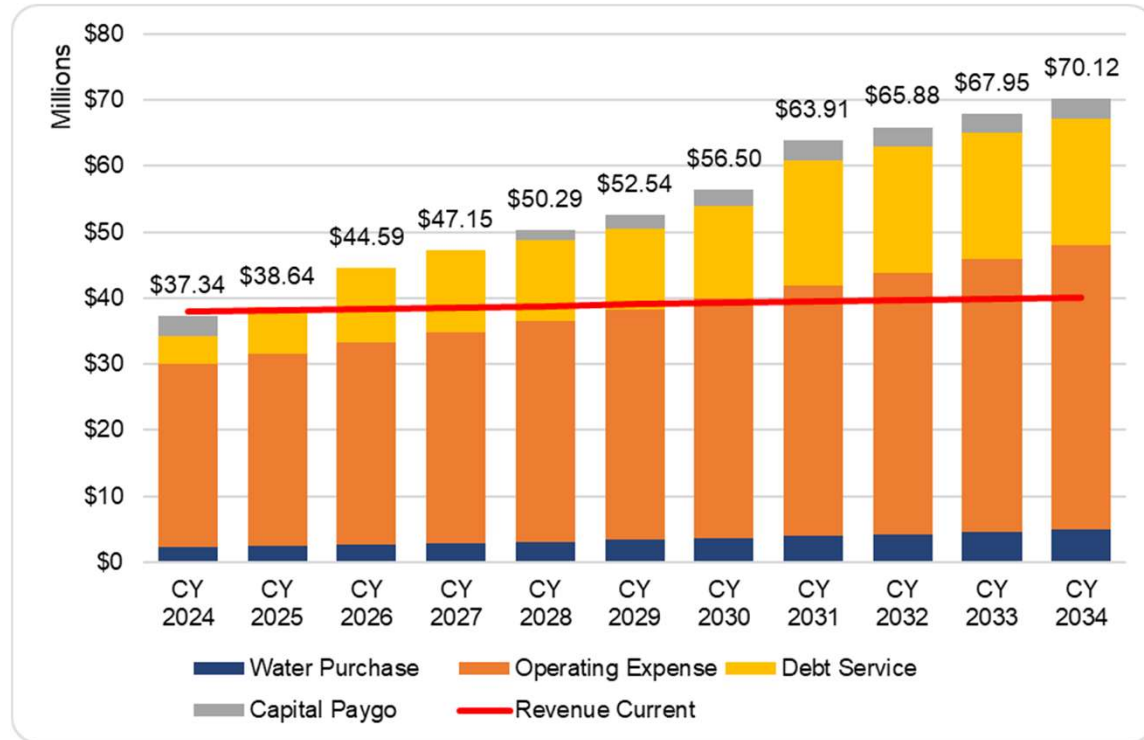
CIP by Funding Source



Category	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
PAYGO	\$3,022,000	\$0	\$0	\$0	\$1,500,000	\$2,000,000
Financing	\$0	\$61,841,321	\$56,063,376	\$59,892,613	\$44,623,535	\$0
Grant	\$0	\$3,175,530	\$8,403,326	\$8,895,004	\$0	\$0
Total	\$3,022,000	\$65,016,851	\$64,466,702	\$68,787,618	\$46,123,535	\$2,000,000

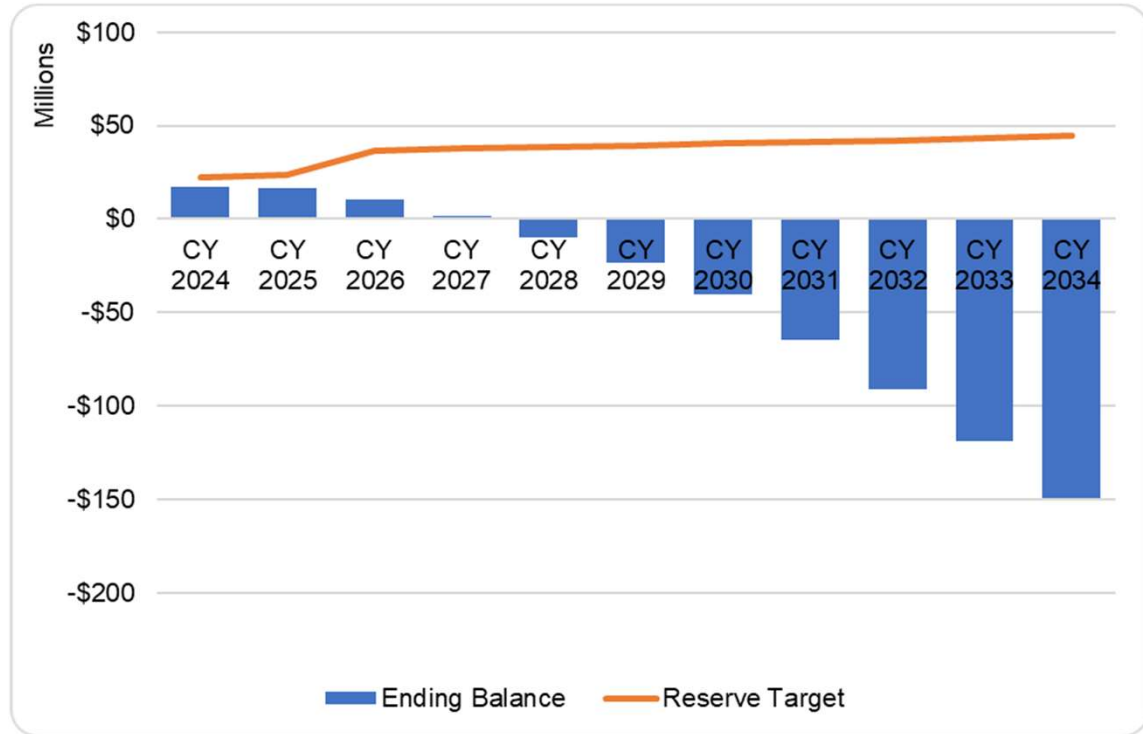


Scenario 1 – Status Quo – Operating Position



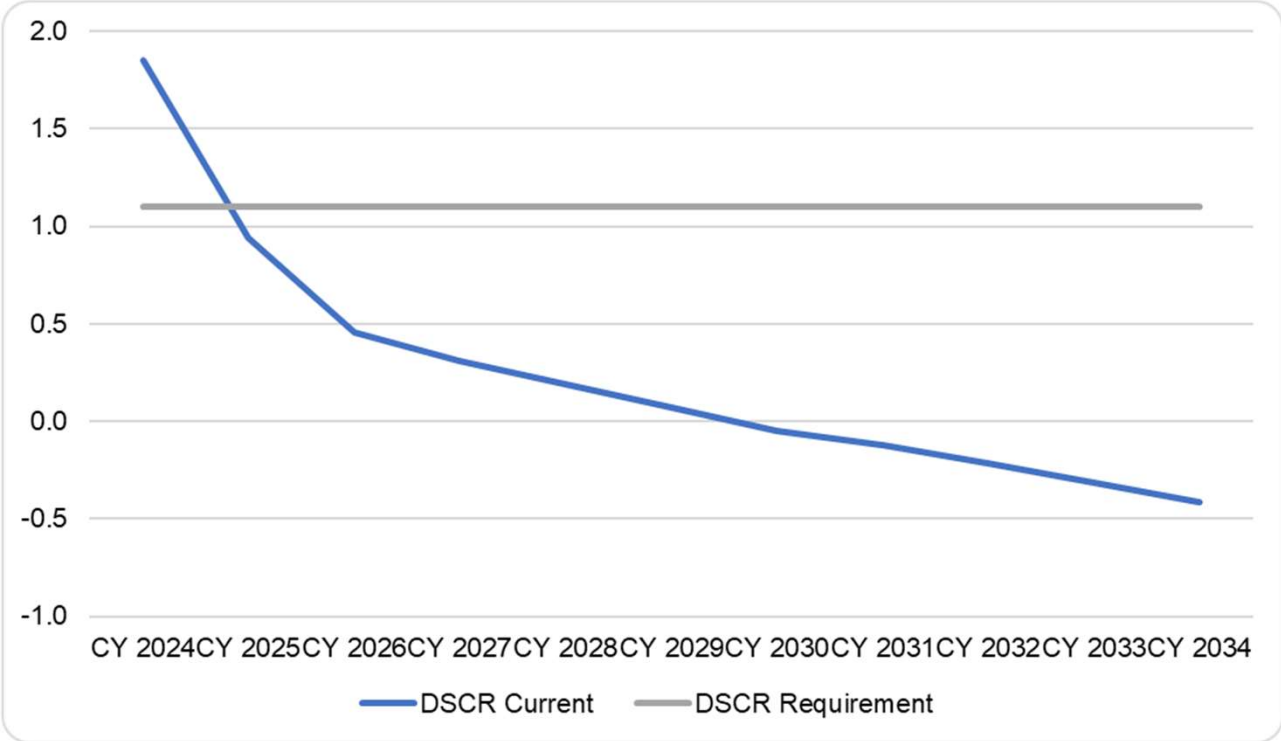
	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029	CY 2030	CY 2031	CY 2032	CY 2033	CY 2034
Revenue Adjustment		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Debt Service Coverage	1.85	0.94	0.45	0.31	0.19	0.07	-0.05	-0.13	-0.22	-0.31	-0.42
Total Debt Payments	\$4,273,171	\$7,015,760	\$11,300,630	\$12,302,971	\$12,299,678	\$12,357,616	\$14,028,006.95	\$19,064,869.98	\$19,061,562.78	\$19,064,711.08	\$19,061,585.90
Total Paygo	\$3,022,000	\$0	\$0	\$0	\$1,500,000	\$2,000,000	\$2,500,000.00	\$3,000,000.00	\$3,000,000.00	\$3,000,000.00	\$3,000,000.00

Scenario 1 – Status Quo – Fund Balance



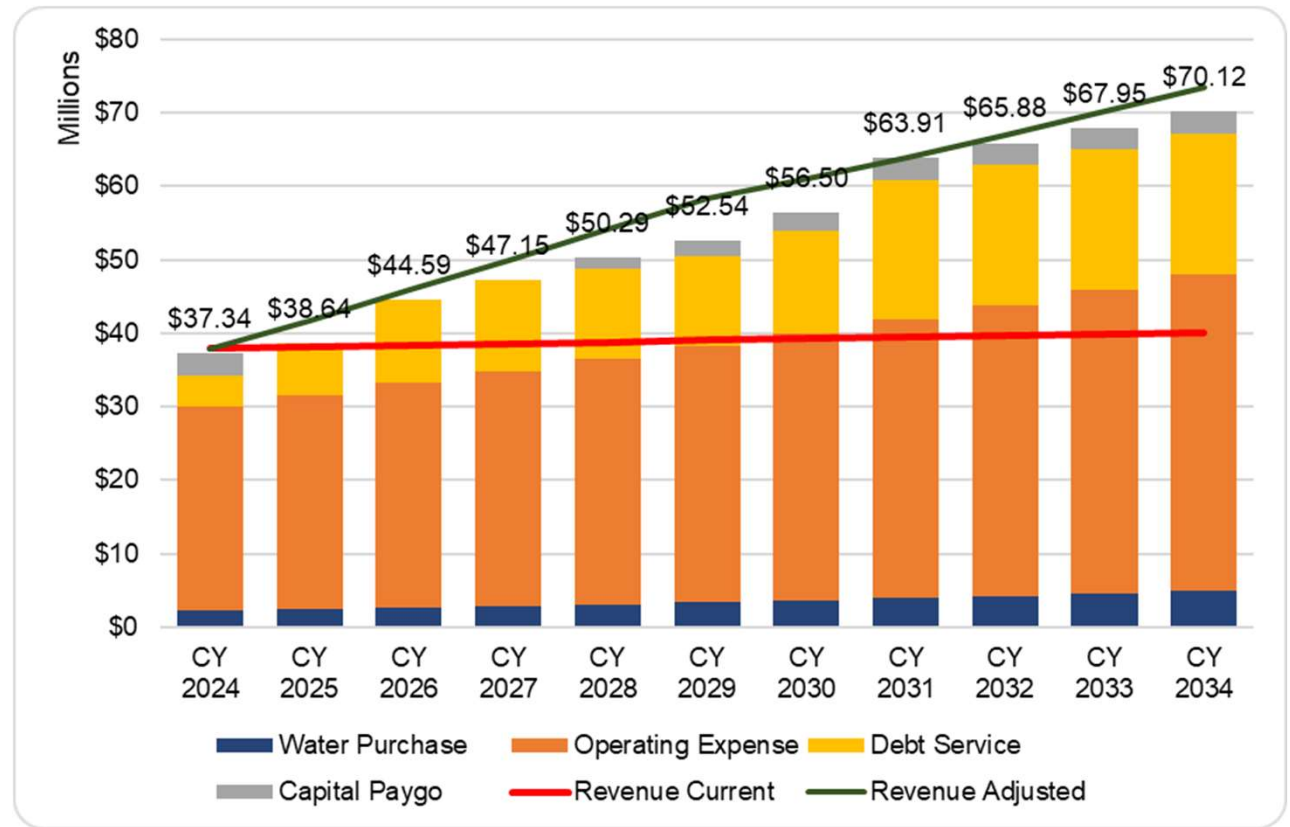
	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029	CY 2030	CY 2031	CY 2032	CY 2033	CY 2034
Revenue Adjustment		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Debt Service Coverage	1.85	0.94	0.45	0.31	0.19	0.07	-0.05	-0.13	-0.22	-0.31	-0.42
Total Debt Payments	\$4,273,171	\$7,015,760	\$11,300,630	\$12,302,971	\$12,299,678	\$12,357,616	\$14,028,006.95	\$19,064,869.98	\$19,061,562.78	\$19,064,711.08	\$19,061,585.90
Total Paygo	\$3,022,000	\$0	\$0	\$0	\$1,500,000	\$2,000,000	\$2,500,000.00	\$3,000,000.00	\$3,000,000.00	\$3,000,000.00	\$3,000,000.00

Scenario 1 – Status Quo – Debt Service Coverage



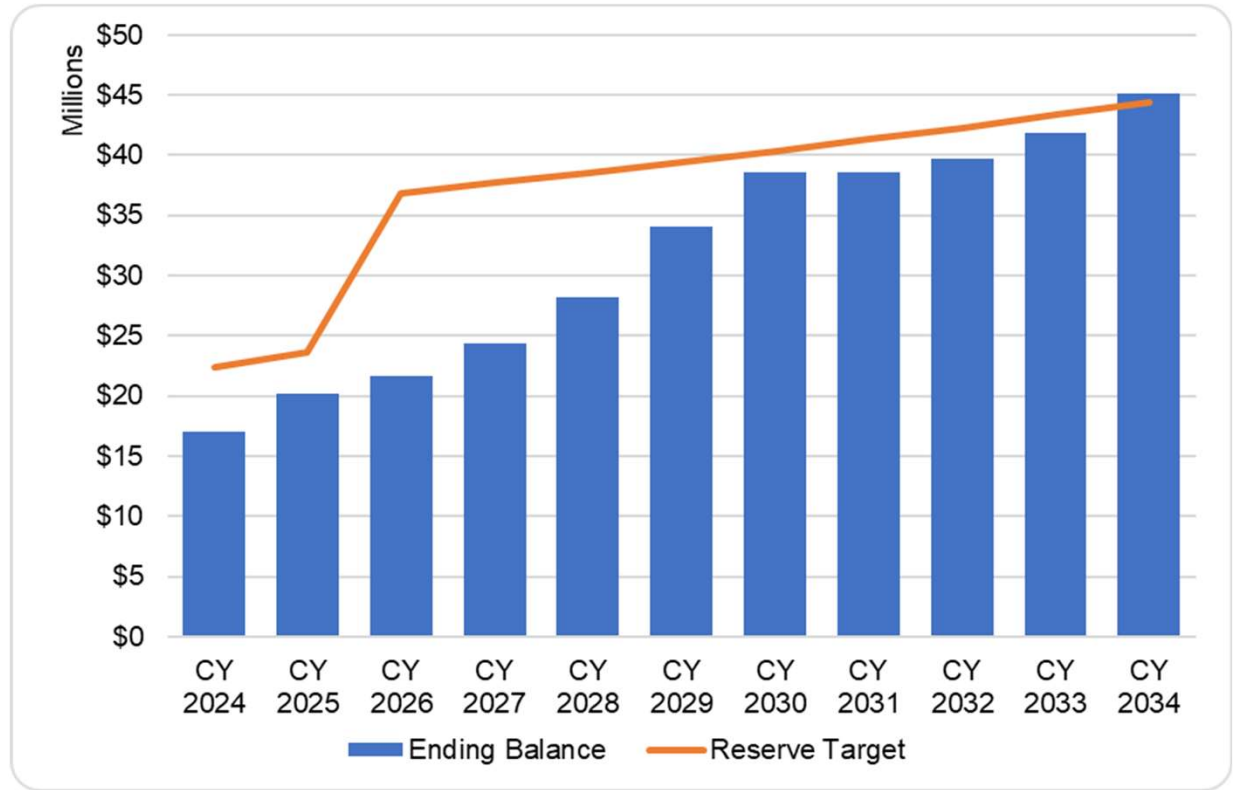
	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029	CY 2030	CY 2031	CY 2032	CY 2033	CY 2034
Revenue Adjustment		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Debt Service Coverage	1.85	0.94	0.45	0.31	0.19	0.07	-0.05	-0.13	-0.22	-0.31	-0.42
Total Debt Payments	\$4,273,171	\$7,015,760	\$11,300,630	\$12,302,971	\$12,299,678	\$12,357,616	\$14,028,006.95	\$19,064,869.98	\$19,061,562.78	\$19,064,711.08	\$19,061,585.90
Total Paygo	\$3,022,000	\$0	\$0	\$0	\$1,500,000	\$2,000,000	\$2,500,000.00	\$3,000,000.00	\$3,000,000.00	\$3,000,000.00	\$3,000,000.00

Scenario 2 – Funded CIP – Operating Position



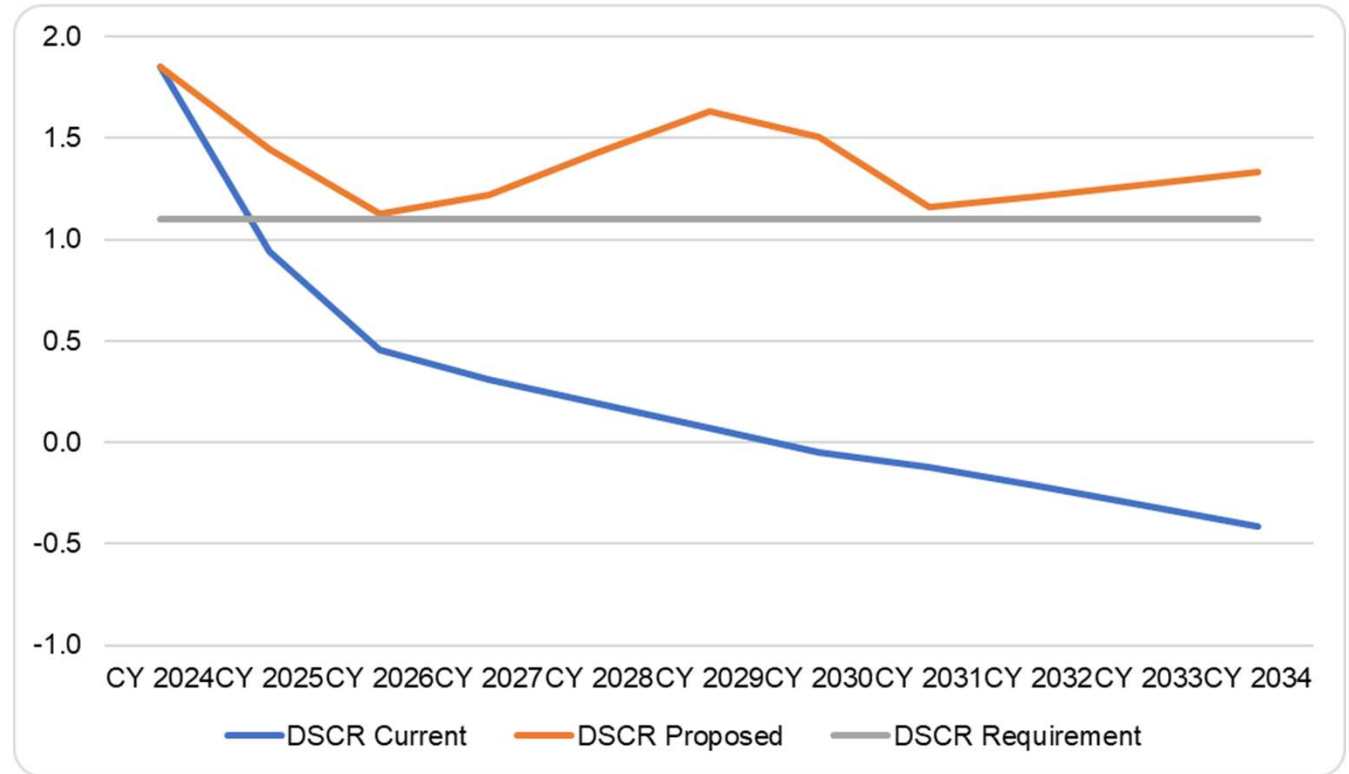
	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029	CY 2030	CY 2031	CY 2032	CY 2033	CY 2034
Revenue Adjustment		11.0%	11.0%	9.0%	9.0%	8.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Debt Service Coverage	1.85	1.45	1.12	1.22	1.44	1.63	1.50	1.16	1.21	1.27	1.33
Total Debt Payments	\$4,273,171	\$7,015,760	\$11,300,630	\$12,302,971	\$12,299,678	\$12,357,616	\$14,028,007	\$19,064,870	\$19,061,563	\$19,064,711	\$19,061,586
Total Paygo	\$3,022,000	\$0	\$0	\$0	\$1,500,000	\$2,000,000	\$2,500,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000

Scenario 2 – Funded CIP – Fund Balance



	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029	CY 2030	CY 2031	CY 2032	CY 2033	CY 2034
Revenue Adjustment		11.0%	11.0%	9.0%	9.0%	8.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Debt Service Coverage	1.85	1.45	1.12	1.22	1.44	1.63	1.50	1.16	1.21	1.27	1.33
Total Debt Payments	\$4,273,171	\$7,015,760	\$11,300,630	\$12,302,971	\$12,299,678	\$12,357,616	\$14,028,007	\$19,064,870	\$19,061,563	\$19,064,711	\$19,061,586
Total Paygo	\$3,022,000	\$0	\$0	\$0	\$1,500,000	\$2,000,000	\$2,500,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000

Scenario 2 – Funded CIP – Debt Service Coverage



	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029	CY 2030	CY 2031	CY 2032	CY 2033	CY 2034
Revenue Adjustment		11.0%	11.0%	9.0%	9.0%	8.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Debt Service Coverage	1.85	1.45	1.12	1.22	1.44	1.63	1.50	1.16	1.21	1.27	1.33
Total Debt Payments	\$4,273,171	\$7,015,760	\$11,300,630	\$12,302,971	\$12,299,678	\$12,357,616	\$14,028,007	\$19,064,870	\$19,061,563	\$19,064,711	\$19,061,586
Total Paygo	\$3,022,000	\$0	\$0	\$0	\$1,500,000	\$2,000,000	\$2,500,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000

Current Rates

Service Charge

Meter Size	Monthly Service Charge 2024
5/8" – 1"	\$ 54.43
1-1/2"	\$ 134.37
2"	\$ 204.21
3"	\$ 367.16
4"	\$ 600.07
6"	\$ 1,181.81
8"	\$ 1,880.17
10"	\$ 2,695.17
Fixed Fire Line	\$ 192.47

Commodity Rates (\$/ccf*)

Tiers	CY 2024
Essential Use Tier 1	\$ 1.08
Efficient Use Tier 2	\$ 1.98
Tier 3	\$ 2.54
Tier 4	\$ 4.23
Tier 5	\$ 6.23



Proposed Rate Refinements

Residential Water Budgets		
Tier	Current Rates	Proposed Rates
Tier 1	55 gpcd	50 gpcd
Tier 2	Irrigable Area x 0.7	Irrigable Area x 0.7
Tier 3	101-130% of Budget	101-150% of Budget
Tier 4	131-160% of Budget	All use above Tier 3
Tier 5	All Use above Tier 4	-

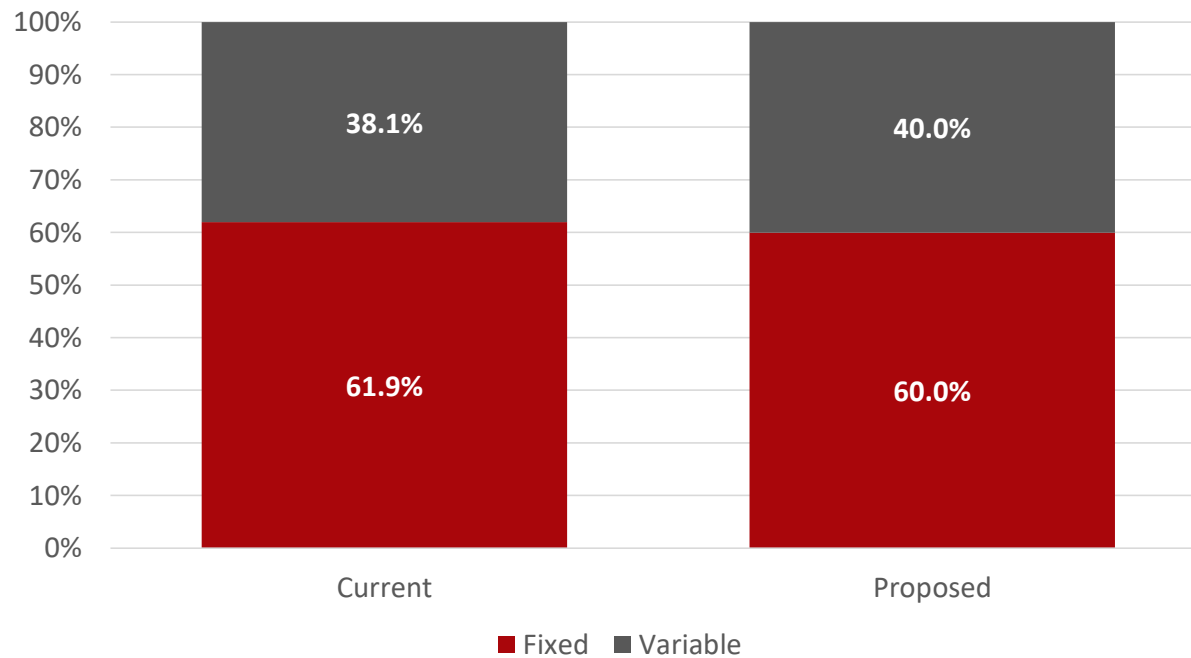
Commercial Water Budgets		
Tier	Current Rates	Proposed Rates
Tier 1	3-year average min	3-year average min
Tier 2	3-year average	3-year average
Tier 3	101-130% of Budget	101-150% of Budget
Tier 4	131-160% of Budget	All use above Tier 3
Tier 5	All Use above Tier 4	-

Irrigation Water Budgets		
Tier	Current Rates	Proposed Rates
Tier 1	Landscape area x .42	Landscape area x .42
Tier 2	Landscape area x .7	Landscape area x .7
Tier 3	101-130% of Budget	101-150% of Budget
Tier 4	131-160% of Budget	All use above Tier 3
Tier 5	All Use above Tier 4	-

Other Rate Concerns		
Category	Current Rates	Proposed Rates
Fixed Charge	~62% of revenue	60% of revenue
Drought Surcharge	Billed to all tiers	Only apply to tier 3 and 4
12" Meters	-	Develop rate



Percent Fixed (current/proposed)



Originally designed to recover 55 percent of revenues through fixed charges.
Use reductions shifted more revenue to fixed rates.



Fixed Rate Design

- Water rate structure changes
 - Maintains current structure for all users
- Weighted average rate for 1" and smaller meters: \$60.94

Meter Size	Customer Service		Monthly Meter		Meter Ratio	Monthly Meter		Proposed Rate
5/8"	\$17.46	+	\$40.02	x	0.67	\$26.68	=	\$44.13
3/4"	\$17.46	+	\$40.02	x	1.00	\$40.02	=	\$57.47
1"	\$17.46	+	\$40.02	x	1.67	\$66.69	=	\$84.15
1 1/2"	\$17.46	+	\$40.02	x	3.33	\$133.39	=	\$150.84
2"	\$17.46	+	\$40.02	x	5.33	\$213.42	=	\$230.88
3"	\$17.46	+	\$40.02	x	10.00	\$400.17	=	\$417.62
4"	\$17.46	+	\$40.02	x	16.67	\$667.08	=	\$684.53
6"	\$17.46	+	\$40.02	x	33.33	\$1,333.75	=	\$1,351.21
8"	\$17.46	+	\$40.02	x	53.33	\$2,134.09	=	\$2,151.54
10"	\$17.46	+	\$40.02	x	76.67	\$3,068.08	=	\$3,085.53
12"	\$17.46	+	\$40.02	x	106.00	\$4,241.76	=	\$4,259.22
Fire Service	\$17.46	+	\$0.70	x	111.31	\$78.12	=	\$95.57

Customer Class	Meter Size	Current Rate	Proposed	\$ Change	% Change
All Customers	5/8" - 1"	\$54.43	\$60.94	\$6.51	12.0%
	1 1/2"	\$134.37	\$150.84	\$16.47	12.3%
	2"	\$204.21	\$230.88	\$26.67	13.1%
	3"	\$367.16	\$417.62	\$50.46	13.7%
	4"	\$600.07	\$684.53	\$84.46	14.1%
	6"	\$1,181.81	\$1,351.21	\$169.40	14.3%
	8"	\$1,880.17	\$2,151.54	\$271.37	14.4%
	10"	\$2,695.17	\$3,085.53	\$390.36	14.5%
	12"	-	\$4,259.22	-	-
Fire Service	All Meters	\$192.47	\$95.57	-\$96.90	-50.3%

Fixed Rate Design

	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
Revenue Adjustment	11.0%	11.0%	9.0%	9.0%	8.0%

Customer Class	Meter Size	Current Rate	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
All Customers	5/8" - 1"	\$54.43	\$60.94	\$67.64	\$73.73	\$80.37	\$86.80
	1 1/2"	\$134.37	\$150.84	\$167.44	\$182.51	\$198.93	\$214.85
	2"	\$204.21	\$230.88	\$256.27	\$279.34	\$304.48	\$328.84
	3"	\$367.16	\$417.62	\$463.56	\$505.28	\$550.76	\$594.82
	4"	\$600.07	\$684.53	\$759.83	\$828.22	\$902.76	\$974.98
	6"	\$1,181.81	\$1,351.21	\$1,499.84	\$1,634.83	\$1,781.96	\$1,924.52
	8"	\$1,880.17	\$2,151.54	\$2,388.21	\$2,603.15	\$2,837.44	\$3,064.43
	10"	\$2,695.17	\$3,085.53	\$3,424.94	\$3,733.18	\$4,069.17	\$4,394.70
	12"	-	\$4,259.22	\$4,727.73	\$5,153.23	\$5,617.02	\$6,066.38
Fire Service	All Meters	\$192.47	\$95.57	\$106.09	\$115.64	\$126.04	\$136.13

Variable Rate Design

Tier	Blended Supply	Base	Peaking	Conservation	Revenue Offset*
Tier 1	X	X	X		X
Tier 2	X	X	X		X
Tier 3	X	X	X	X	
Tier 4	X	X	X	X	

Customer Class	Current	Proposed	\$ Change	% Change
All Customers				
Tier 1	\$1.08	\$1.32	\$0.24	22%
Tier 2	\$1.98	\$2.66	\$0.68	34%
Tier 3	\$2.54	\$3.98	\$1.44	57%
Tier 4	\$4.23	\$5.00	\$0.77	18%
Tier 5	\$6.23	-	-	-

*Revenue offset includes property taxes (non-operating revenue)

Variable Rate Design

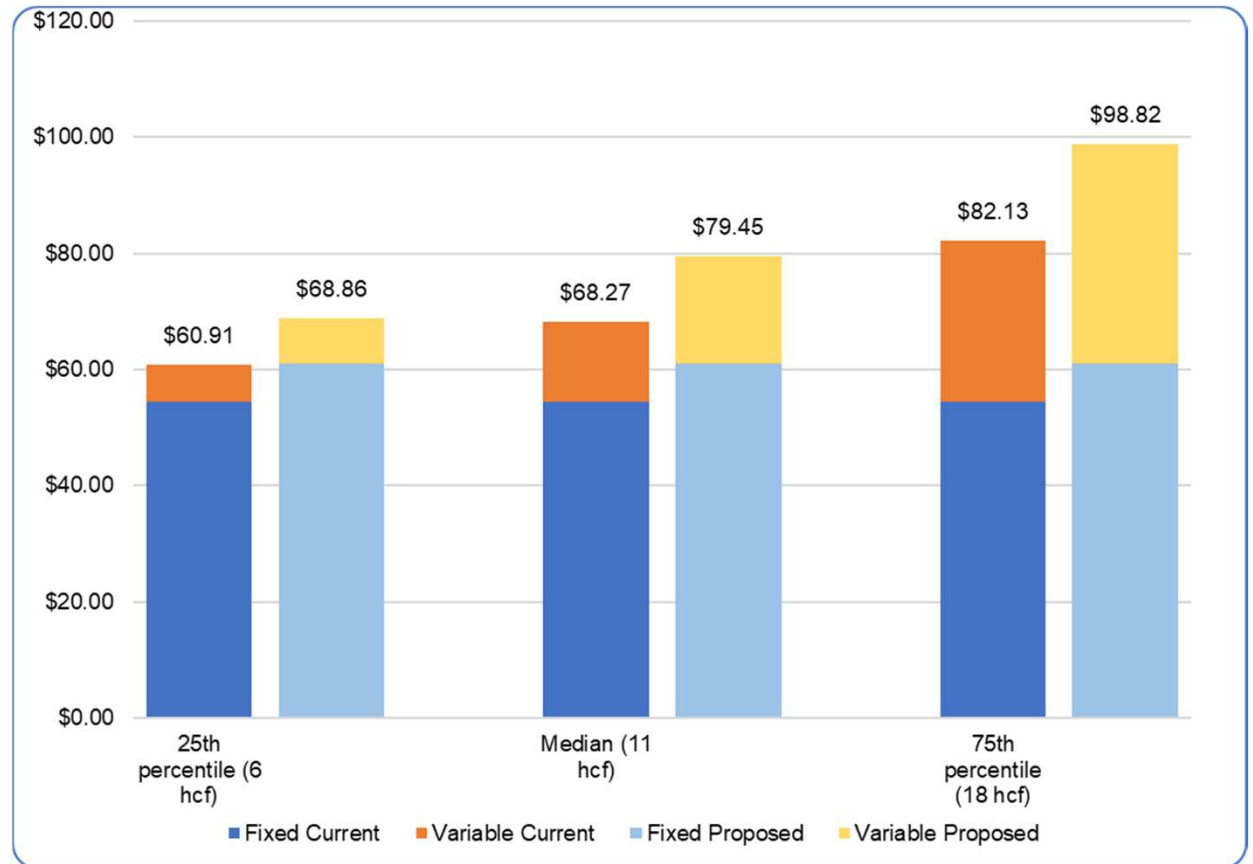
	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
Revenue Adjustment	11.0%	11.0%	9.0%	9.0%	8.0%

Customer Class	Current	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
Tier 1	\$1.08	\$1.32	\$1.47	\$1.60	\$1.74	\$1.88
Tier 2	\$1.98	\$2.66	\$2.95	\$3.22	\$3.51	\$3.79
Tier 3	\$2.54	\$3.98	\$4.42	\$4.82	\$5.25	\$5.67
Tier 4	\$4.23	\$5.00	\$5.55	\$6.05	\$6.59	\$7.12
Tier 5	\$6.23	-	-	-	-	-

Single Family Residential Customer Impacts

Rate Inputs:

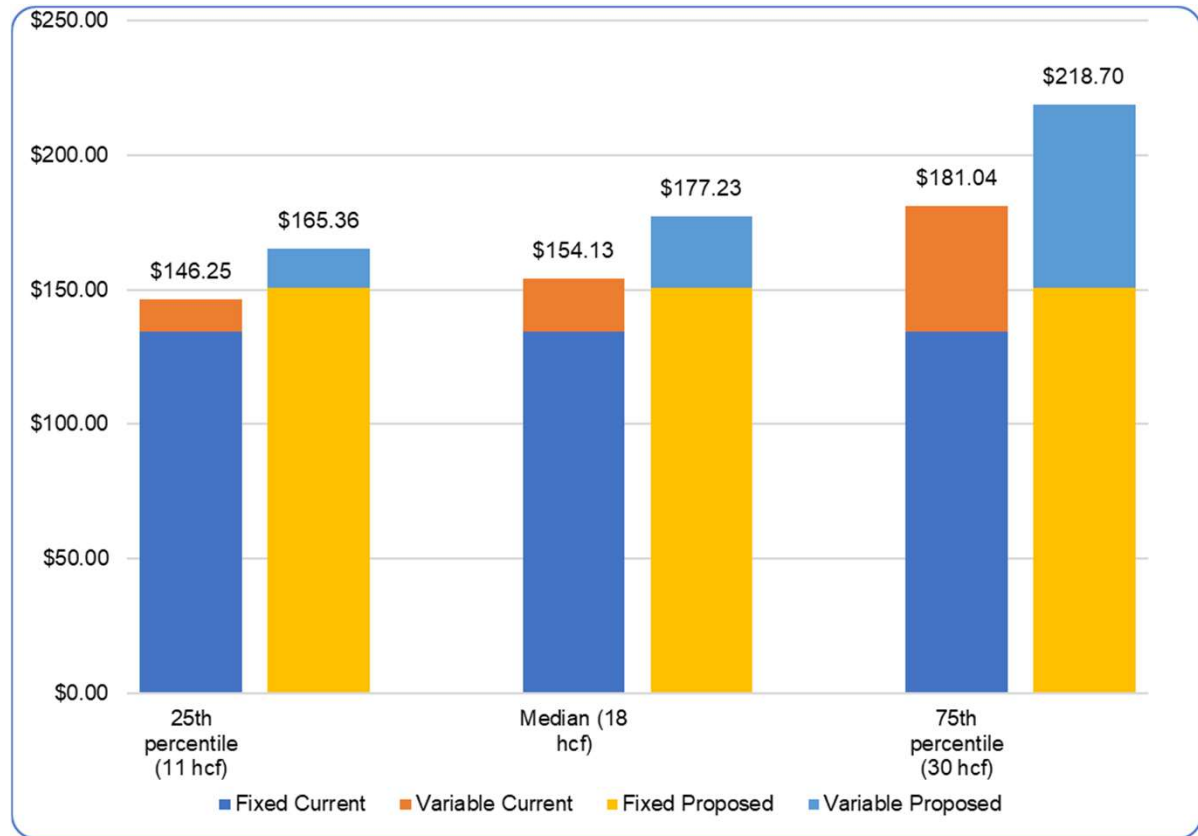
- 3/4" meter
- 4 Occupants
- 2,798 sqft Irrigable Area
- 5.77 Average ET
- 0.7 Landscape Factor



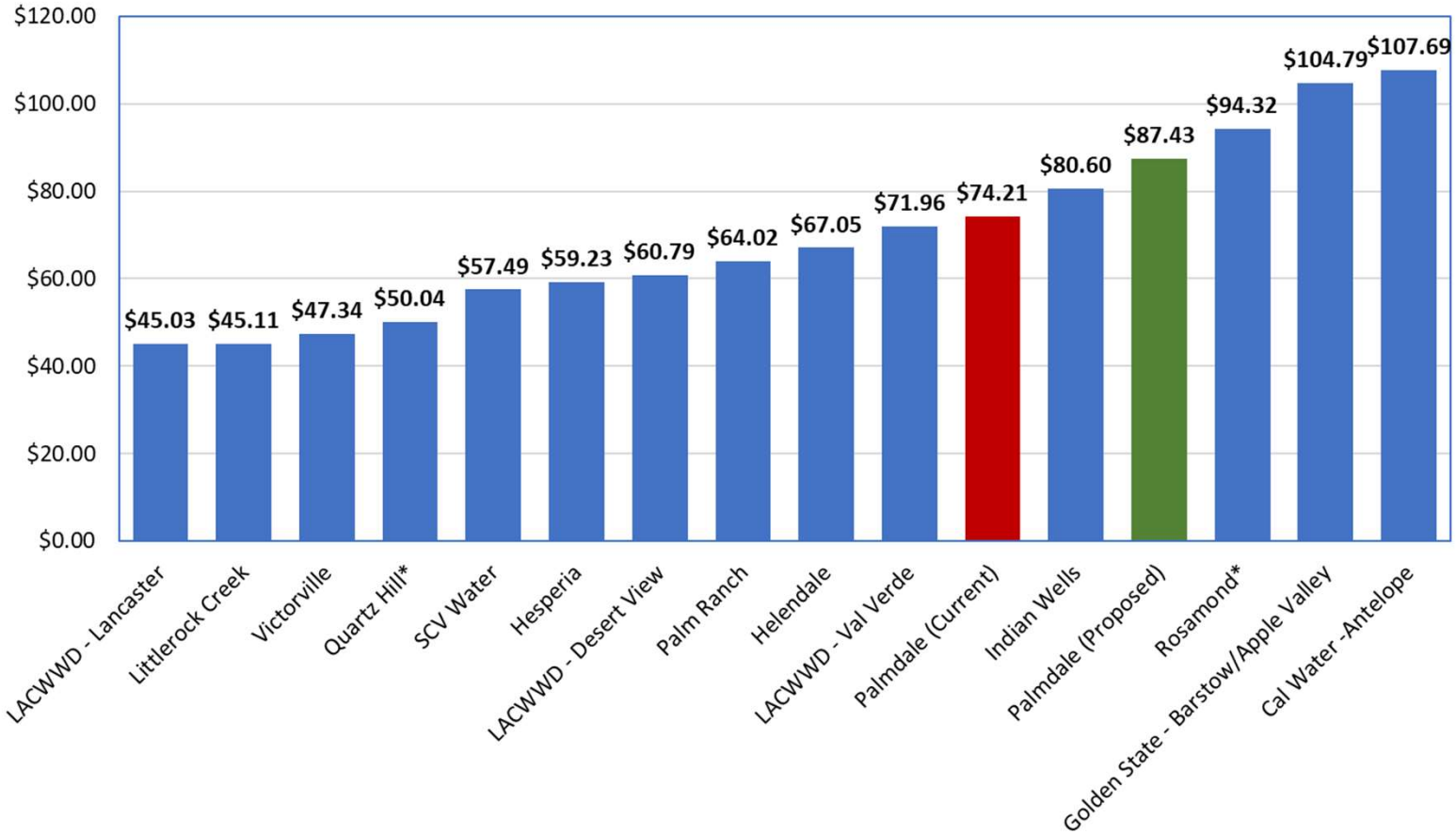
Multi Family Residential Customer Impacts

Water Budget Inputs:

- 1 ½" Meter
- 2 Occupants
- 4 Units
- 1,998 sqft Irrigable Area
- 5.77 Average ET
- 0.7 Landscape Factor



Rate Survey – July 1, 2024 (14 hcf – Average Use)



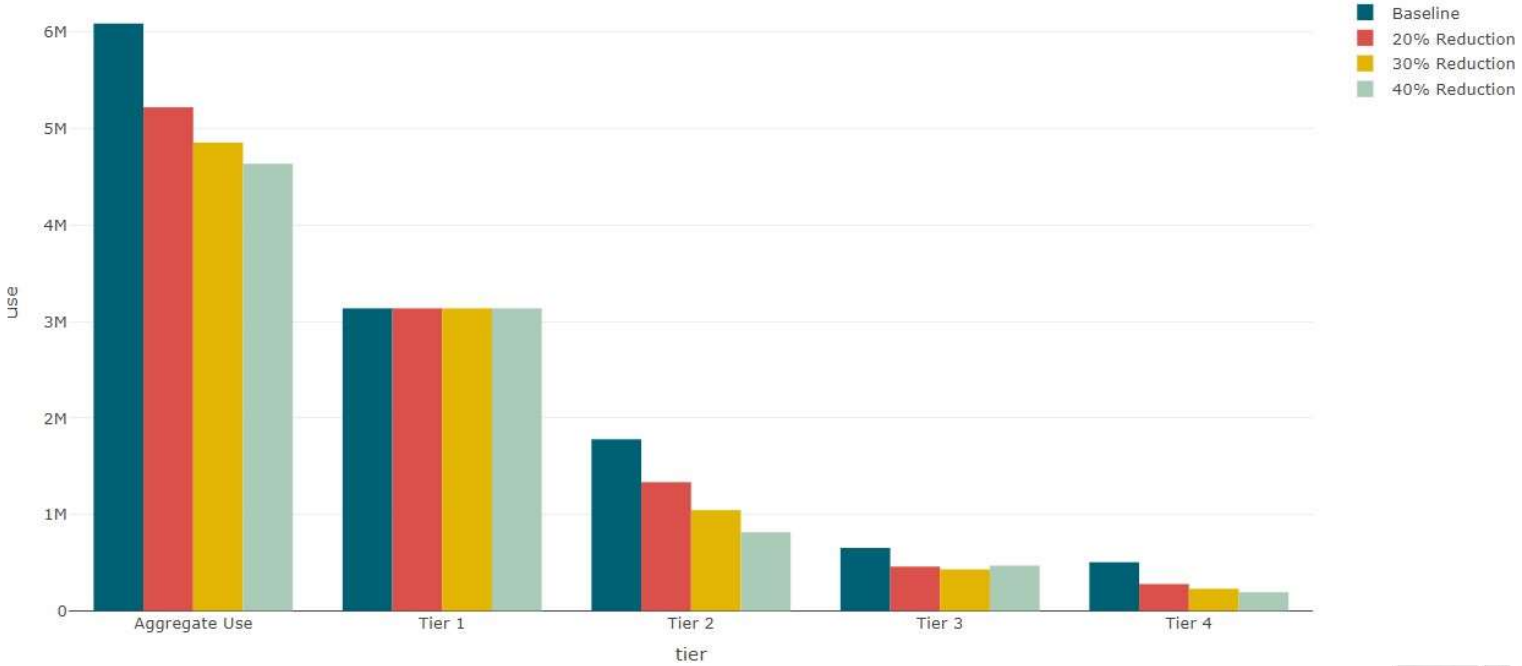
Single Family Residential
 ¾" Meter
 4 Persons
 2,798 irrigated sqft
 5.77 ET
 Summer Rates where applicable
 *Denotes agency with water budget-based rates

Drought Reduction Assumptions

- Three Stages of drought:
 - Stage 1 - 20% reduction
 - Stage 2 - 30% reduction
 - Stage 3 - 40% reduction
- Use reduction first occurs in upper tiers
- Tier 2 width decreases based on the drought stage
- SFR, MFR and IRR customers reduce by mandate up to their Tier 1 budget
- C&I customers reduce by mandate up to their water budget (Tier 1 + Tier 2)



Drought Surcharge Usage Reductions



Drought Surcharge Design

	CY 2025	CY 2026	CY 2027	CY 2028	CY 2029
Revenue Adjustment	11.0%	11.0%	9.0%	9.0%	8.0%

Drought Stage	Current(1)	CY 2025 (2)	CY 2026	CY 2027	CY 2028	CY 2029
Stage 1 (20%)	\$0.45	\$2.14	\$2.38	\$2.59	\$2.82	\$3.05
Stage 2 (30%)	\$0.69	\$3.12	\$3.46	\$3.77	\$4.11	\$4.44
Stage 3 (40%)	\$1.00	\$3.51	\$3.90	\$4.25	\$4.63	\$5.00

- (1) Current drought surcharges are applied to all water use
- (2) Proposed drought surcharges are only applied to tier 3 and tier 4 use