

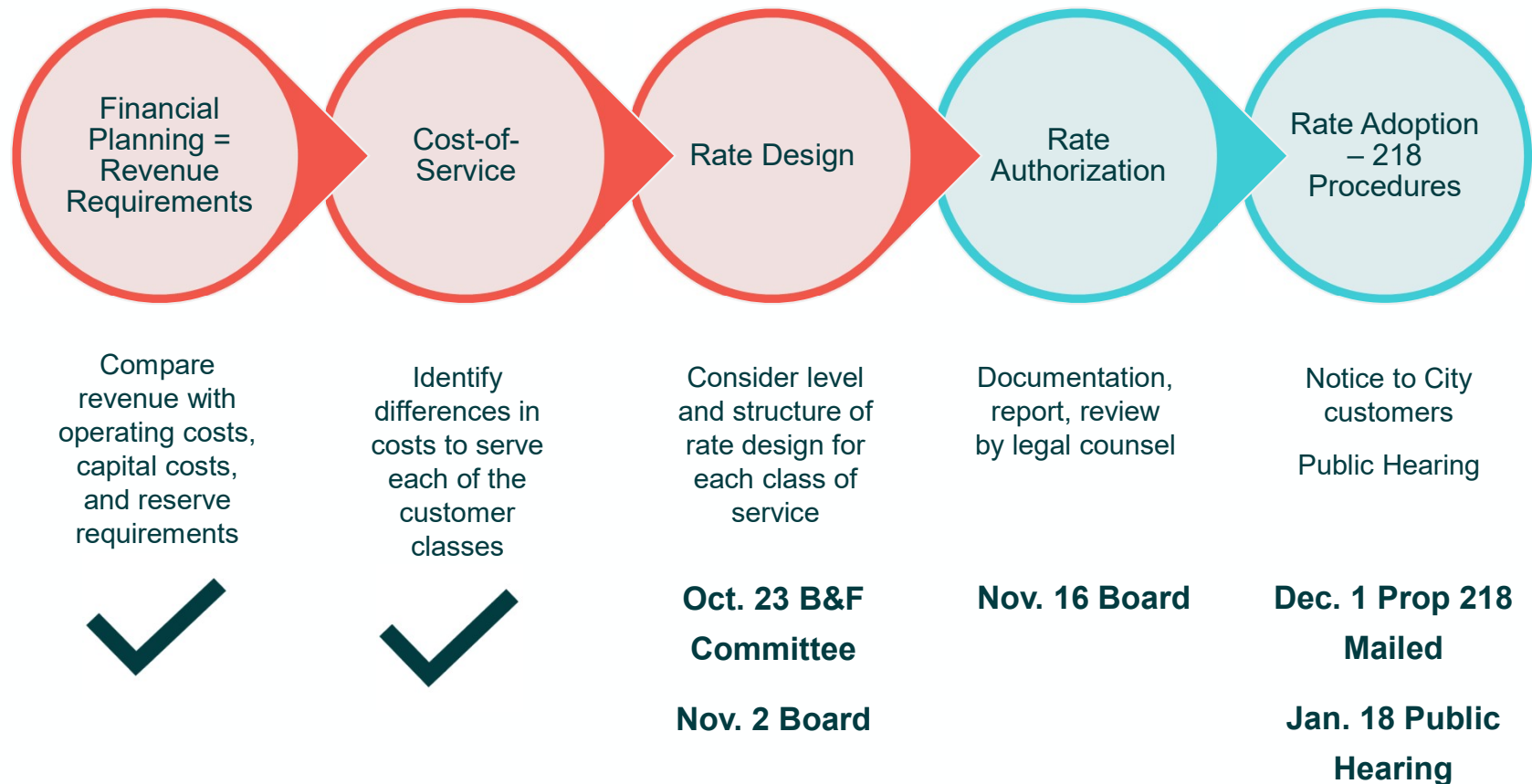


Water & Wastewater Rates

Board Meeting:
November 2, 2023



Key Steps in Conducting the District's Rate Study



Water Revenue Adjustments – Selected Financial Plan

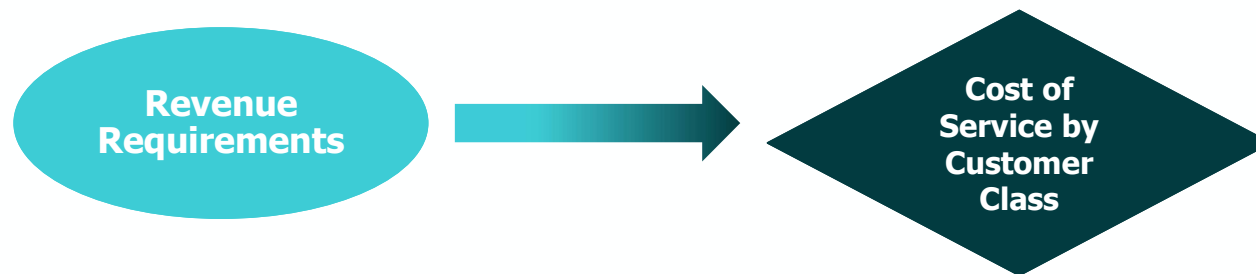
	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Revenue Adjustments	10.0%	10.0%	7.0%	7.0%	7.0%
Effective Month	February	January	January	January	January

- This is the planned *overall* rate-based **revenue** adjustment.
- Individual bill changes will increase less or more than the overall percentage adjustment depending on the water rate structure adopted and the amount of water used.

Cost of Service



What is Cost of Service?



Method to recover costs:

- Between fixed charges and variable rates
- From customers in proportion to their use of the system, recognizing the impact of each class on system facilities and operations.

Best Practices and industry guidance used throughout the U.S. to set utility water and wastewater rates:

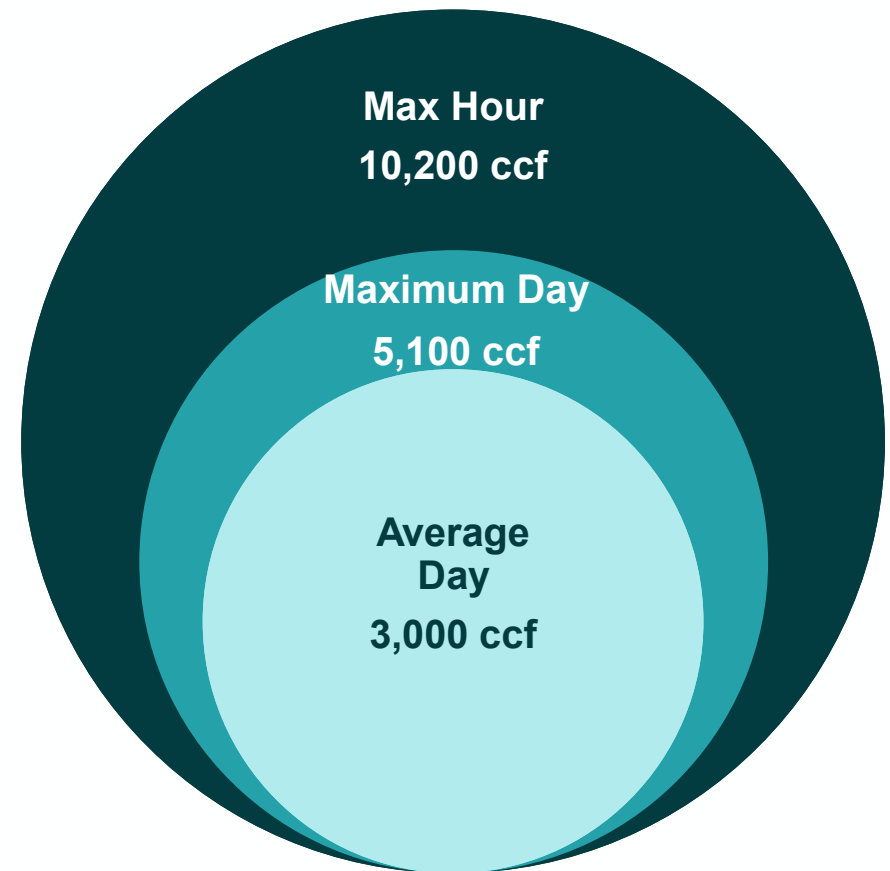
- **Water:** American Water Works Assn. (AWWA) Manual of "*Principles of Water Rates, Fees and Charges*"
- **Wastewater:** Water Environment Federation (WEF) Manual "*Financing and Charges for Wastewater Systems*"

Cost Causation Components

- **Base Costs:** O&M expenses and capital costs associated with service to customers under average load conditions
- **Peaking Costs (Max Day and Max Hour):** costs associated with serving water during peak flows in excess of base use
- **Meter Maintenance:** maintenance and capital costs related to meters
- **Customer Service:** costs associated with serving customers, irrespective of the amount or water rate of use
- **Conservation:** costs associated with a water conservation program
- **Capital costs:** cash-financed capital projects, debt service

Define Peaking (Max Day and Max Hour) Costs

- Pipeline diameters are used as an example to show how much more infrastructure is needed to meet peak demands.
- The same can be said of water storage tanks and pumps.
- Larger pipes and tanks are more expensive to build, maintain, and replace than smaller-sized infrastructure.
- Costs are proportional to the area shown.



1 ccf = 748 gallons

SLVWD Proposed Cost of Service Alignment

Customer Class	Revenue Current Rates (\$)	Revenue Neutral COS (\$)	Difference (\$)	Over (+) / Under (-)	% of Rev. Neutral COS
Single Family	\$8,885,143	\$9,057,413	-\$172,269	—	78%
Commercial*	\$1,956,053	\$1,707,847	\$248,206	—	15%
Industrial**	\$501,713	\$476,796	\$24,916	+	4%
Irrigation***	\$121,950	\$175,775	-\$53,826	+	2%
Hauled Water	\$100,366	\$145,233	-\$44,866	—	1%
Private Fire Service	\$0	\$2,161	-\$2,161	—	<1%
Total	\$11,565,225	\$11,565,225	\$0	—	100%

* Commercial includes multifamily and mobile homes.

** Industrial includes schools.

*** Irrigation includes parks.

Water Rate Structure Alternatives



Pricing Objectives – SLVWD Priorities



Revenue Stability



Affordability



Conservation

Notes:

Increase revenue stability by increasing the fixed charges. That impacts lower-than-average water users more than higher-than-average water users.

Address affordability through tiered residential water rates and an increase in the Low-Income Rate Assistance benefit.

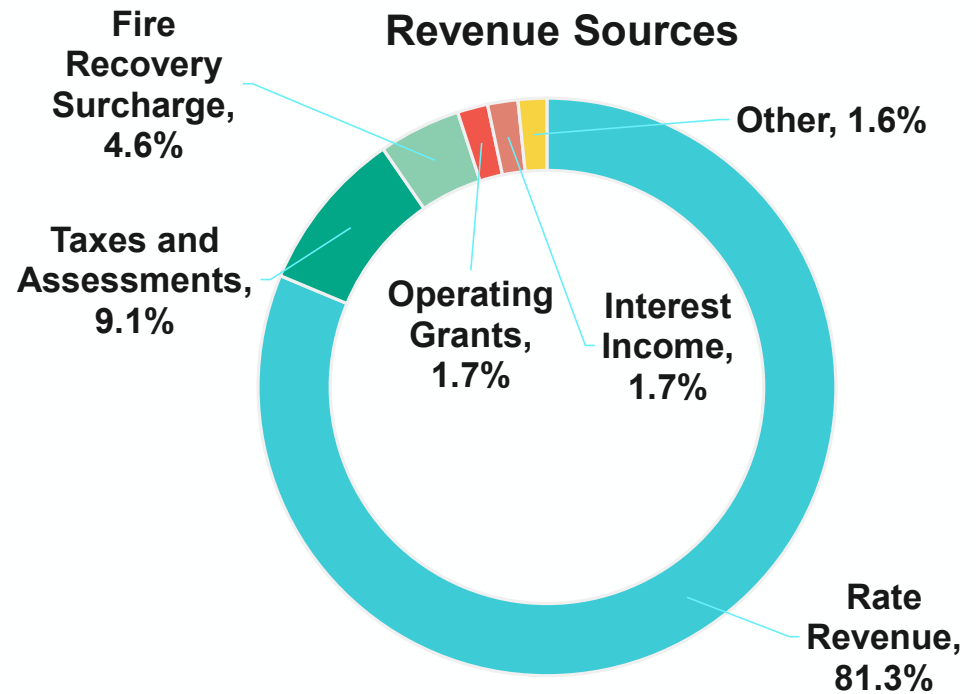
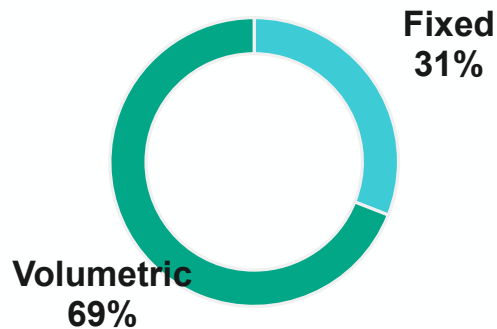
Average single-family usage is 6 ccf/mo. Approximately 73% of bills are 6 ccf/mo or less. Approximately 70% of single-family usage is 6 ccf/mo or less.

Budget & Finance Committee Evaluated Alternatives With These in Mind

- Each alternative recovers the same amount of revenue, which was determined in the financial plan.
- However, each alternative has a different impact on customers depending on their water usage, meter size, and customer class.

Current Water Rate Structure

- Fixed
 - › Monthly Service Charge
- Volumetric
 - › Uniform: All customers
 - › Uniform: Hauled Water



Water Rate Structure Alternatives, Fixed Charges – Reviewed with Budget & Finance Committee

- Portion of rate-revenue to be recovered by fixed charges:
 - › 35% - less fiscal stability as usage varies
 - › 45% - greater fiscal stability regardless of changing usage
- Create a capital-specific fixed charge to recover capital-related costs and provide greater clarity and visibility
- Create a private fire service fixed charge for those customers that receive this service

Water Rate Structure Alternatives, Volumetric— Reviewed with Budget & Finance Committee

- **Option 1**

- Volumetric
 - › Uniform: All customers
 - › Uniform: Hauled Water

- **Option 2**

- Volumetric
 - › 3-Tier for Single Family Residential
 - › Uniform by Customer Class
 - Commercial (includes multifamily and mobile homes)
 - Industrial (includes schools)
 - Irrigation (includes parks)
 - › Uniform: Hauled Water

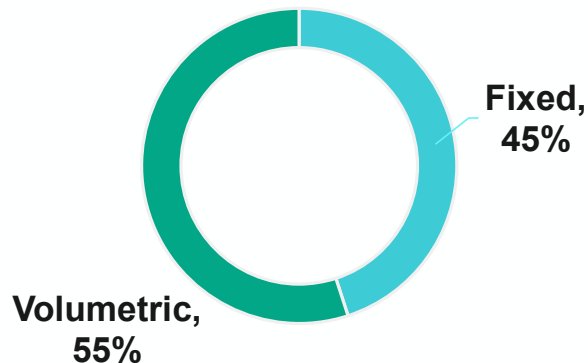
- **Option 3**

- Volumetric
 - › 2-Tier for Single Family Residential
 - › Uniform by Customer Class
 - Commercial (includes multifamily and mobile homes)
 - Industrial (includes schools)
 - Irrigation (includes parks)
 - › Uniform: Hauled Water

Committee Recommended Water Rate Structure

- **Fixed**

- › Monthly Service Charge
- › Capital Charge
- › Private Fire Service (only for those 87 customers with this service.)



- **Volumetric**

- › 3-Tier for Single Family Residential
 - 0 – 4 ccf (~57% of usage, lowest avg. winter mo.)
 - 5 – 8 ccf (~22% of usage, highest avg. summer mo.)
 - > 8 ccf (~21% of usage)
- › Uniform by Customer Class
 - Commercial (includes multifamily & mobile homes)
 - Industrial (includes schools)
 - Irrigation (includes parks)
- › Uniform: Hauled Water

Committee's Rationale for Recommended Water Rate Structure

- Increased fixed cost recovery results in more revenue stability to help weather droughts and emergencies.
- Creating different water rates customer classes corrects inequities in the current uniform, water rate structure.
- Creating tiers for single family residential customers passes on the higher costs due to peaking demand to heavy water users and pass on the lower costs for less-than average water users to those households that don't contribute much to peaking.
- Selected Option 3 for single family residential volumetric:
 - › Option 1 impacts lower-water-usage customers more strongly than Options 2 and 3
 - › Options 2 and 3 are similar, but the 3-tier option provides a lower volumetric rate for low-water-usage customers and a higher rate for the largest users.

Components of the Water Bill

Water Bill
Monthly Service Charge
+ Monthly Capital Charge
+ Volumetric Charge
Total Monthly Bill

- If you have a private fire service line, you'll also see a charge for private fire service.

Monthly Service Charge Derivation, FY2024

Meter Size	Number of Meters	Meter Capacity Ratio	Meter	+	Customer	=	Proposed, \$/mo/mtr	Current, \$/mo/mtr	Difference (\$)	Difference (%)
5/8"	7,346	1.00	\$36.77		\$11.27		\$48.04	\$35.34	\$12.70	36%
3/4"	271	1.00	\$36.77		\$11.27		\$48.04	\$35.34	\$12.70	36%
1"	366	1.67	\$61.29		\$11.27		\$72.56	\$52.97	\$19.59	37%
1.5"	54	3.33	\$122.57		\$11.27		\$133.85	\$97.05	\$36.80	38%
2"	32	5.33	\$196.12		\$11.27		\$207.39	\$149.94	\$57.45	38%
3"	4	10.67	\$392.24		\$11.27		\$403.51	\$290.97	\$112.54	39%
4"	2	16.67	\$612.87		\$11.27		\$624.15	\$449.64	\$174.51	39%

Monthly Capital Charge, FY2024

Meter Size	Number of Meters	Meter Capacity Ratio	Current	Proposed, \$/mo/mtr
5/8"	7,346	1.00	\$0.00	\$7.65
3/4"	271	1.00	\$0.00	\$7.65
1"	366	1.67	\$0.00	\$12.75
1.5"	54	3.33	\$0.00	\$25.49
2"	32	5.33	\$0.00	\$40.79
3"	4	10.67	\$0.00	\$81.57
4"	2	16.67	\$0.00	\$127.45

Monthly Service Charge Plus Capital Charge, FY2024

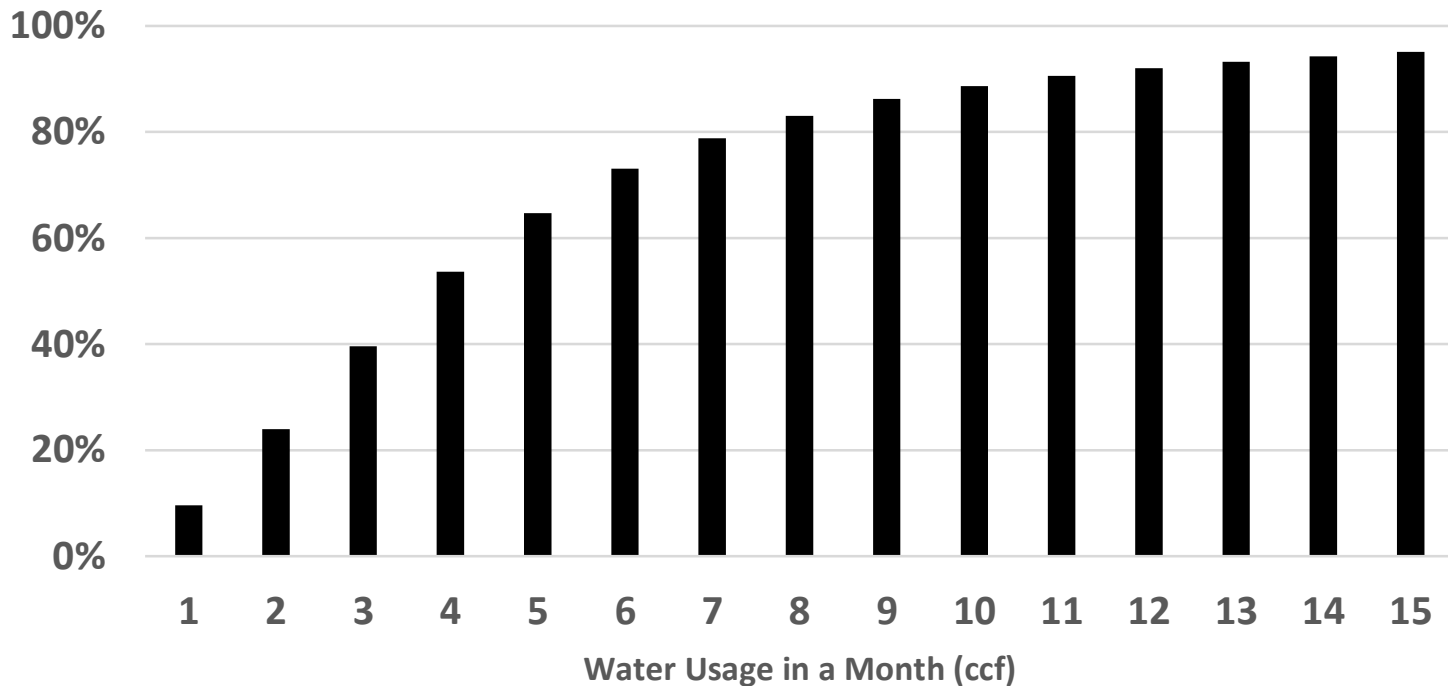
Meter Size	Current, \$/mo/mtr	Proposed, \$/mo/mtr	Difference (\$)	Difference (%)
5/8"	\$35.34	\$55.69	\$20.35	58%
3/4"	\$35.34	\$55.69	\$20.35	58%
1"	\$52.97	\$85.31	\$32.34	61%
1.5"	\$97.05	\$159.34	\$62.29	64%
2"	\$149.94	\$248.18	\$98.24	66%
3"	\$290.97	\$485.08	\$194.11	67%
4"	\$449.64	\$751.60	\$301.96	67%

Monthly Private Fire Service Charge, FY2024

Fire Line Size	No. of Services	Fire Capacity Ratio	Current	Proposed, \$/mo/line
1"	83	1.00	\$0.00	\$1.97
1.5"	2	2.90	\$0.00	\$5.72
2"	2	6.19	\$0.00	\$12.20
3"	--	17.98	\$0.00	\$35.43
4"	--	38.32	\$0.00	\$75.51

Single Family Residential Usage Curve

Single Family Cumulative Billed Usage
(1 ccf = 748 gallons)



- 2 ccf = very low usage
- 4 ccf = median & average low winter month
- 6 ccf = average usage
- 8 ccf = average high summer month
- 11 ccf = very high usage

Volumetric Charge Derivation, FY2024

Volumetric Charge, \$/ccf	Base	+	Peaking	+	Conservation	=	Proposed, \$/ccf	Current, \$/ccf	Difference (\$)	Difference (%)
Single Family Residential										
Tier 1: 0 – 4 ccf	\$7.57		\$0.88		\$0.23		\$8.69	\$12.66	(\$3.97)	-31%
Tier 2: 5 – 8 ccf	\$7.57		\$3.98		\$0.23		\$11.79	\$12.66	(\$0.87)	-7%
Tier 3: > 8 ccf	\$7.57		\$9.06		\$0.23		\$16.88	\$12.66	\$4.22	33%
Commercial*	\$7.57		\$2.48		\$0.23		\$10.29	\$12.66	(\$2.37)	-19%
Industrial**	\$7.57		\$4.22		\$0.23		\$12.03	\$12.66	(\$0.63)	-5%
Irrigation**	\$7.57		\$12.29		\$0.23		\$20.10	\$12.66	\$7.44	59%
Hauled Water	\$7.57		\$14.62		\$0.23		\$22.43	\$17.99	\$4.44	25%

* Includes multifamily and mobile homes.

** Includes schools.

*** includes parks.

Proposed Fixed Charges, \$/mo/mtr: 5-yr Schedule

Monthly Service Charges	Current FY 2023	Proposed FY 2024	Proposed FY 2025	Proposed FY 2026	Proposed FY 2027	Proposed FY 2028
5/8"	\$35.34	\$48.04	\$52.85	\$56.55	\$60.51	\$64.75
3/4"	\$35.34	\$48.04	\$52.85	\$56.55	\$60.51	\$64.75
1"	\$52.97	\$72.56	\$79.82	\$85.41	\$91.39	\$97.79
1.5"	\$97.05	\$133.85	\$147.24	\$157.55	\$168.58	\$180.39
2"	\$149.94	\$207.39	\$228.13	\$244.10	\$261.19	\$279.48
3"	\$290.97	\$403.51	\$443.87	\$474.95	\$508.20	\$543.78
4"	\$449.64	\$624.15	\$686.57	\$734.63	\$786.06	\$841.09

Monthly Capital Charges	Current FY 2023	Proposed FY 2024	Proposed FY 2025	Proposed FY 2026	Proposed FY 2027	Proposed FY 2028
5/8"	\$0.00	\$7.65	\$8.42	\$9.01	\$9.65	\$10.33
3/4"	\$0.00	\$7.65	\$8.42	\$9.01	\$9.65	\$10.33
1"	\$0.00	\$12.75	\$14.03	\$15.02	\$16.08	\$17.21
1.5"	\$0.00	\$25.49	\$28.04	\$30.01	\$32.12	\$34.37
2"	\$0.00	\$40.79	\$44.87	\$48.02	\$51.39	\$54.99
3"	\$0.00	\$81.57	\$89.73	\$96.02	\$102.75	\$109.95
4"	\$0.00	\$127.45	\$140.20	\$150.02	\$160.53	\$171.77

Proposed Private Fire Service Charges, \$/mo/line: 5-yr Schedule

No. of Customers	Fire Connection Size	Current FY 2023	Proposed FY 2024	Proposed FY 2025	Proposed FY 2026	Proposed FY 2027	Proposed FY 2028
83	1"	\$0.00	\$1.97	\$2.17	\$2.33	\$2.50	\$2.68
2	1.5"	\$0.00	\$5.72	\$6.30	\$6.75	\$7.23	\$7.74
2	2"	\$0.00	\$12.20	\$13.42	\$14.36	\$15.37	\$16.45
0	3"	\$0.00	\$35.43	\$38.98	\$41.71	\$44.63	\$47.76
0	4"	\$0.00	\$75.51	\$83.07	\$88.89	\$95.12	\$101.78

Proposed Volumetric Charge, \$/ccf: 5-yr Schedule

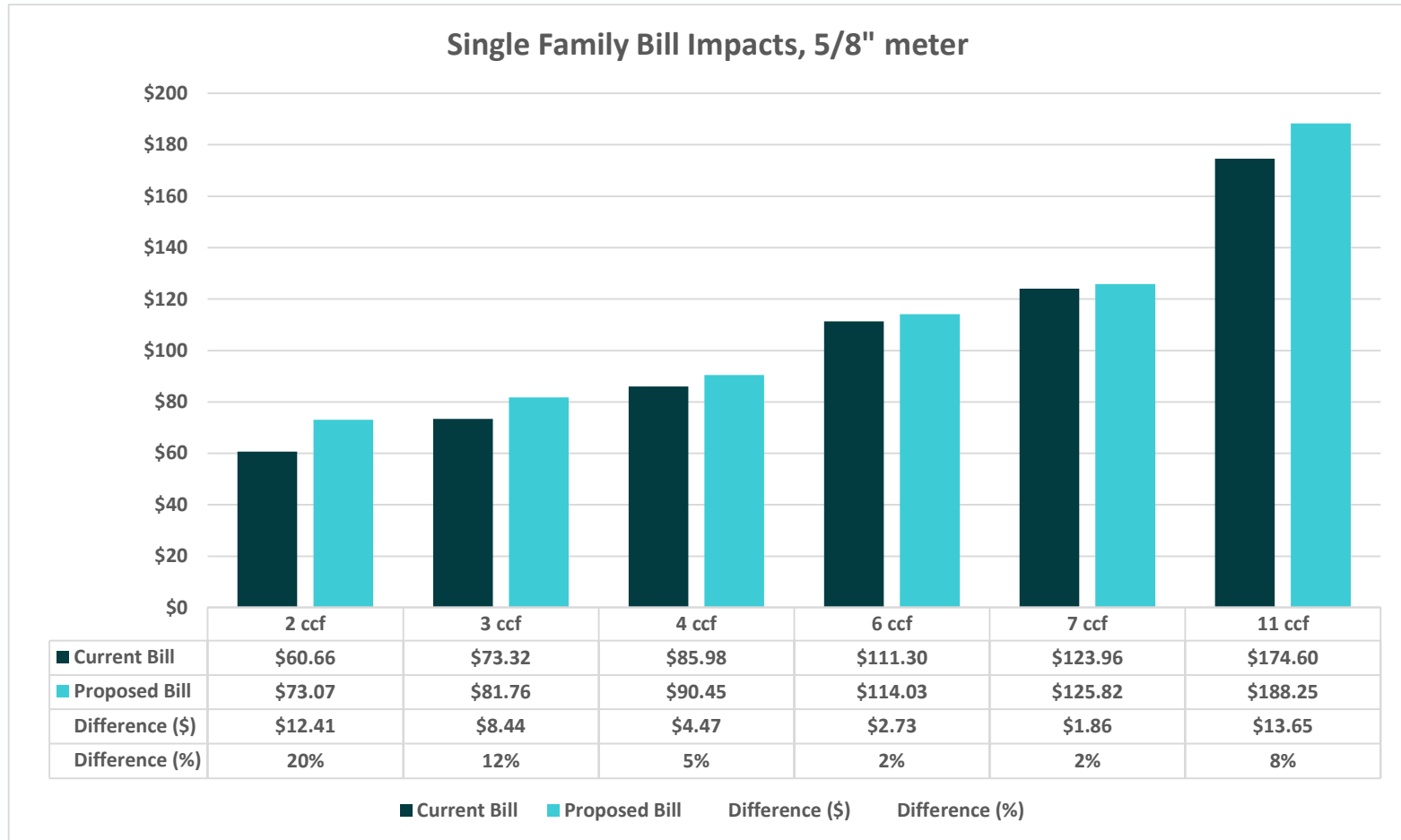
Volumetric Charges, \$/ccf	Current FY 2023	Proposed FY 2024	Proposed FY 2025	Proposed FY 2026	Proposed FY 2027	Proposed FY 2028
Single Family Residential						
Tier 1: 0 – 4 ccf	\$12.66	\$8.69	\$9.56	\$10.23	\$10.95	\$11.72
Tier 2: 5 – 8 ccf	\$12.66	\$11.79	\$12.97	\$13.88	\$14.86	\$15.91
Tier 3: > 8 ccf	\$12.66	\$16.88	\$18.57	\$19.87	\$21.27	\$22.76
Commercial*	\$12.66	\$10.29	\$11.32	\$12.12	\$12.97	\$13.88
Industrial**	\$12.66	\$12.03	\$13.24	\$14.17	\$15.17	\$16.24
Irrigation***	\$12.66	\$20.10	\$22.11	\$23.66	\$25.32	\$27.10
Hauled Water	\$17.99	\$22.43	\$24.68	\$26.41	\$28.26	\$30.24

* Includes multifamily and mobile homes.

** Includes schools.

*** includes parks.

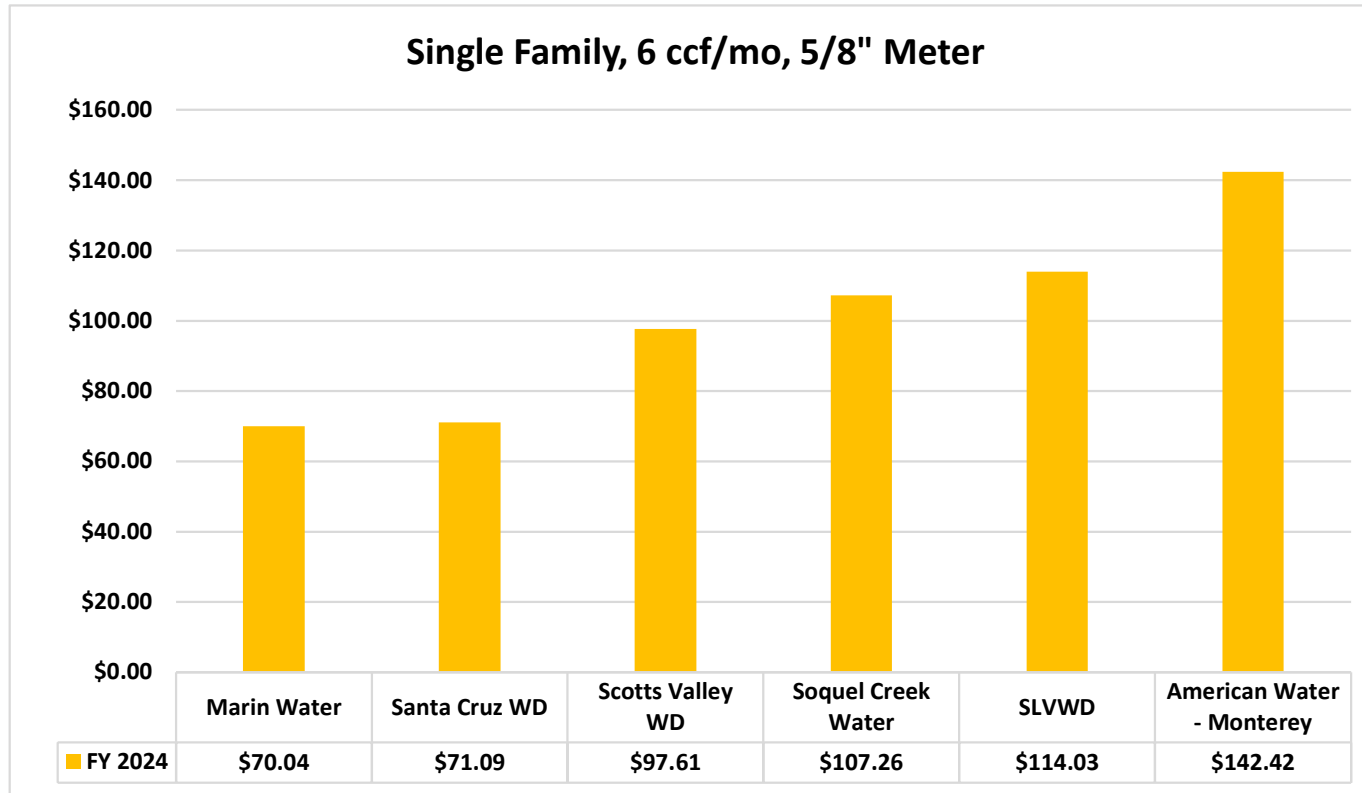
Single Family Bill Impacts, FY2024



Low-Income Rate Assistance

- Budget and Finance committee recommended that an increase in the Low-Income Rate Assistance (LIRA) program be implemented at the same time as the new rate structure.
- Currently, 78 households are enrolled and receive a \$10/mo reduction in their bill.
- A possible change would be to increase it to \$15/mo when the new rates go into effect and increase it to \$20/mo in FY2025.

Neighboring Agency Comparison, FY2024



* Soquel Creek Water is currently conducting a rate study. Proposed FY2024 rates not yet available.

Proposed Wastewater Rates



Wastewater Revenue Adjustments for Bear Creek Estates – Selected Financial Plan & Rates

	Current	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Revenue Adjustments		3.0%	3.0%	4.0%	4.0%	4.0%
Effective Month		February	January	January	January	January
Charge, \$/mo	\$257.47	\$265.20	\$273.16	\$284.09	\$295.46	\$307.28

- The changes in rates are the same as the required revenue adjustments because treatment of wastewater is billed as 100% fixed charge on a monthly basis to the 56 single-family homes in the Bear Creek Estates.

Schedule for Adopting Water & Wastewater Rates

- Rates Discussion with Board – November 2, 2023
- Board Authorizes Proposed Rates – November 16, 2023
- District Prepares Prop. 218 Notices – November 17 – Nov 30, 2023
- District Mails Prop. 218 Notices – December 1, 2023
- Public Hearing – January 18, 2024
- Rates Implemented – February 1, 2024

Thank you