

TECHNICAL MEMORANDUM

TO: Mark Kovich, Western Hills Water District

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SUBJECT: WHWD Rate Study

DATE: July 15, 2026

1 EXECUTIVE SUMMARY

Western Hills Water District ("District") retained Kier & Wright to prepare a water rate study for Fiscal Years 2027 through 2031. The study evaluates the annual cost of operating, maintaining, and managing the District's water system and develops water rates that recover those costs in accordance with Proposition 218. The rates are based on a cost-of-service analysis that allocates costs among customers in proportion to the cost of providing water service.

Since the District's previous rate study, the District entered into a new water supply agreement with Kern County Water Agency (KCWA). The agreement resolves the prior \$14 million obligation to KCWA, secures a long-term imported water supply for the Diablo Grande community, and reduces annual purchased water costs from approximately \$1.47 million to \$300,000. This reduction lowers the District's annual revenue requirement and allows the proposed rates to reduce the average customer's water bill by approximately \$179 per month on average.

The proposed rates also include annual reserve contributions to help the District prepare for major water system and supply needs. The reserve is intended to provide a dedicated funding source for both foreseeable needs with uncertain timing and costs that may arise suddenly. Including reserve contributions in the proposed rates allows the District to build this funding source over time rather than recovering larger costs through a single future rate action.

Kier & Wright recommends a rate structure consisting of a residential fixed monthly charge, a residential usage rate, and a separate HOA irrigation usage rate. The residential fixed monthly service charge recovers costs that are incurred to operate, maintain, and manage year-round residential water service regardless of the amount of water used. The residential usage rate recovers costs that generally increase with water production and delivery. HOA irrigation accounts are not assigned a fixed monthly service charge and are billed based only on metered water use. Together, these rate components recover the District's annual revenue requirement through a combination of fixed and usage-based charges. Table 1 summarizes the recommended water rates for Fiscal Years 2027 through 2031.

Table 1 – Proposed Water Rates

Component	FY2027	FY2028	FY2029	FY2030	FY2031
Residential Fixed Charge (\$/mo)	\$367.97	\$394.57	\$408.78	\$423.57	\$438.94
Residential Usage Rate (\$/1,000 gallons)	\$10.29	\$10.70	\$11.13	\$11.58	\$12.04
HOA Irrigation Usage Rate (\$/1000 gallons)	\$8.91	\$9.27	\$9.64	\$10.02	\$10.42

Note: The residential monthly fixed charge includes a General Manager consisting of a half-year allowance in FY2027 and a full-year allowance beginning in FY2028. The allowance may be removed, reduced, or deferred if the current unpaid General Manager continues serving in that role.

The proposed rates:

- Replace the existing three-tier usage rate structure with a uniform residential usage rate of \$10.29 per 1,000 gallons in FY2027 and a separate HOA irrigation usage rate of \$8.91 per 1,000 gallons.
- Reduce the residential monthly fixed charge from \$568.51 to \$367.97 in FY2027.
- Increase the District's reserve fund from approximately \$1 million to \$2.4 million over five years.

The proposed rates are based on current active service connections and projected operating costs. If actual costs, staffing needs, or customer growth result in revenue needs (per customer) that are lower than projected, the District may implement lower rates, provided revenues remain sufficient to operate the system and meet reserve targets.

2 INTRODUCTION

Water rates charged by public agencies in California are governed by Proposition 218 (Article XIII D of the California Constitution), which establishes the requirements for property-related fees and charges, including water service rates. Among other provisions, Proposition 218 requires that revenues derived from water rates not exceed the funds required to provide water service and that the amount charged to each customer be proportional to the cost of providing that service.

This study was prepared in accordance with Proposition 218 requirements. The analysis develops the District's annual revenue requirement based on the cost of operating, maintaining, and managing the water system and allocates those costs among customers.

This memorandum is organized to describe the District's water system and water supply in Sections 2.1 and 2.2, presents the rate development methodology in Section 3, summarizes the proposed rates and customer bill impacts in Section 4, and identifies the implementation steps required before the rates may be adopted in Section 5.

2.1 WATER SYSTEM

Western Hills Water District provides potable water service to the Diablo Grande community in Stanislaus County, California. The District's water system consists of imported water supplies, treatment facilities, pumping infrastructure, transmission and distribution pipelines, storage facilities, customer metering, and billing systems. Together, these facilities provide reliable potable water service throughout the community.

The District currently serves approximately 604 active service connections consisting primarily of residential customers. Of these connections, 595 residential accounts, including the community fire station, are served through 1-inch meters. An additional 9 community accounts, consisting of homeowners association irrigation services and the community clubhouse, are served through 2-inch meters.

Residential water use consists of both indoor household demand and outdoor landscape irrigation, resulting in higher water use during the warmer months of the year. The HOA accounts primarily serve irrigation of common areas, including parks, medians, and landscaped open space, and therefore experience larger seasonal increases in water demand. Figure 1 illustrates monthly water demand for residential and HOA irrigation accounts during 2025.

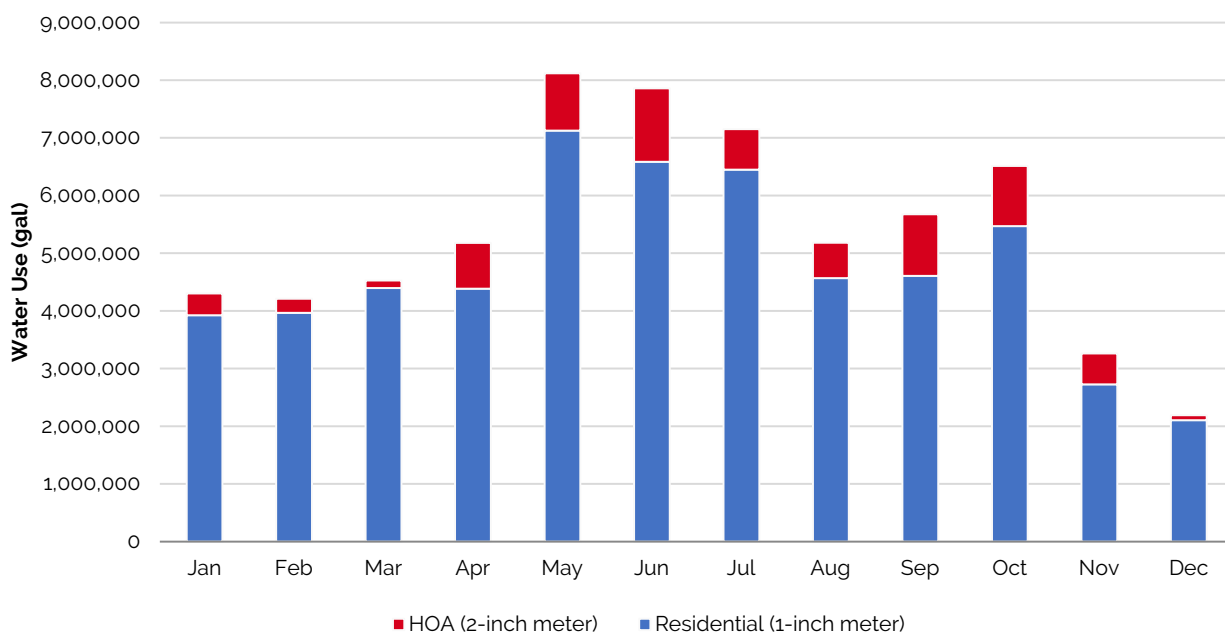


Figure 1. Monthly Water Demand by Customer Class (2025)

2.2 WATER SUPPLY

The District relies entirely on imported surface water supplied through Kern County Water Agency (KCWA) as part of the State Water Project (SWP). Purchased water is one of the District's largest annual operating expenses and therefore has a direct influence on the revenue required to provide water service. Since the District's previous rate study, the District entered into a new long-term water supply agreement with KCWA. The agreement resolves the prior \$14 million obligation to KCWA, secures a long-term imported water supply for the Diablo Grande community, and reduces annual purchased water costs from approximately \$1.47 million to \$300,000. This reduction is the primary factor driving the lower revenue requirement and proposed water rates presented in this study.

The District pays for its contracted water supply in advance, regardless of the amount ultimately used during the year. Because these costs are incurred to secure water availability rather than to purchase

water on a usage basis, they are treated as fixed costs and recovered primarily through the residential monthly fixed charge.

Although the State Water Project provides a reliable long-term water supply, annual allocations can vary significantly based on hydrologic conditions. During severe drought conditions, SWP allocations may be substantially reduced. For example, if allocations are reduced to five percent (as they have during drought conditions), the District's annual entitlement drops to 75 acre-feet. Compared to the District's annual demand of roughly 400 acre-feet, this would leave a supply shortfall of 325 acre-feet. As a result, supplemental water supplies will need to be purchased on the open market during dry years when SWP allocations are not fully met. Based on current conditions, such purchases are estimated to cost approximately \$600 per acre-foot plus applicable transaction and delivery charges. Because these costs occur only during drought conditions and are more uncertain, the proposed rates do not include ongoing funding for drought-year water purchases. Instead, the District intends to rely on its reserve fund when purchasing supplemental water supplies as necessary.

3 RATE DEVELOPMENT METHODOLOGY

The proposed water rates were developed using a cost-of-service methodology that determines the annual revenue required to operate the District's water system and allocates those costs among customers based on the cost of providing water service, in accordance with Proposition 218.

The analysis first established the District's annual revenue requirement. The revenue requirement was then classified between fixed and variable cost components. Fixed costs represent costs that are incurred regardless of customer water use and are recovered primarily through the residential monthly fixed charge. Variable costs represent costs that generally increase with water production and delivery and are recovered through usage rates applied to metered water use. The proposed rates were then developed to recover the annual revenue requirement over the five-year planning period.

3.1 OPERATING COST PROJECTION

The annual revenue requirement represents the funding needed to operate, maintain, and manage the District's water system. It includes projected operating and maintenance expenses and annual reserve contributions. Operating costs were projected using the District's current budget, historical financial information, and anticipated operational needs over the five-year study period.

Operating costs were projected for Fiscal Years 2027 through 2031. The FY2027 budget reflects the District's anticipated operating costs, including the reduced purchased water cost under the new Kern County Water Agency agreement. In each subsequent year, operating costs were escalated by 4 percent annually based on the Engineering News-Record (ENR) Building Cost Index (BCI) to account for the anticipated increase in the cost of labor, materials, equipment, and services over the planning period. The annual escalation factor is intended to provide a reasonable planning-level allowance for cost growth. Actual cost increases may be higher or lower than projected, and the District may review the adopted rates annually to determine whether the full scheduled increase remains necessary. If actual costs do not increase as projected, the District may choose to implement a lower adjustment while remaining within the rates adopted through the Proposition 218 process.¹

¹ The Engineering News-Record (ENR) Building Cost Index (BCI) is a construction cost index that tracks changes in labor and material costs and was used for planning-level cost escalation.

Table 2 summarizes the projected operating costs and resulting revenue requirements for Fiscal Years 2027 through 2031.

Table 2 – District Revenue Requirements (FY2027 – FY2031)

Cost Category	FY2027	FY2028	FY2029	FY2030	FY2031
Payroll & Related	\$824,030	\$856,991	\$891,270	\$926,921	\$963,998
General Manager	\$100,000	\$200,000	\$208,000	\$216,320	\$224,973
Purchased Water (fixed)	\$300,000	\$312,000	\$324,480	\$337,459	\$350,958
Pump Stations	\$353,430	\$367,567	\$382,270	\$397,561	\$413,463
Water Treatment	\$638,650	\$664,196	\$690,764	\$718,394	\$747,130
Transmission, Dist. & Lines	\$15,750	\$16,380	\$17,035	\$17,717	\$18,425
General & Administrative	\$603,511	\$627,651	\$652,757	\$678,868	\$706,022
Capital Repairs	\$97,720	\$101,629	\$105,694	\$109,922	\$114,319
Total O&M	\$2,933,091	\$3,146,414	\$3,272,271	\$3,403,162	\$3,539,288
+ Reserve contribution	\$280,000	\$280,000	\$280,000	\$280,000	\$280,000
Revenue Requirement	\$3,213,091	\$3,426,414	\$3,552,271	\$3,683,162	\$3,819,288

The projected revenue requirement is substantially lower than the revenue requirement established in the District's previous rate study, primarily due to the reduction in imported water supply costs discussed in Section 2.2. The lower purchased water cost allows the District to reduce residential water bills while still recovering the costs needed for water supply, treatment, operations, maintenance, administration, and reserve funding. The revenue requirement also includes a General Manager allowance, consisting of a half-year allowance in FY2027 and a full-year allowance beginning in FY2028. The allowance is included to protect the District in the event a paid General Manager position becomes necessary during the rate period. If the current unpaid General Manager continues serving in that role, the Board may remove, reduce, or defer this allowance and implement rates below the rates adopted, provided revenues remain sufficient to operate the system and meet reserve targets. These reserve and staffing allowances are included to improve the District's financial position and support ongoing management of the water system. Even with these items included, the projected revenue requirement remains well below historical levels throughout the five-year planning period.

3.2 EMERGENCY AND CAPITAL RESERVE

The District has established a reserve target of \$2.4 million to provide a dedicated funding source for major water system and supply needs. The reserve is intended to address both foreseeable needs with uncertain timing and costs that may arise suddenly, including but not limited to:

- **Infrastructure Failure Risk.** The District has experienced significant infrastructure failures in the past. For example, failure of the Parkway transmission pipeline resulted in approximately \$600,000 in repair costs.

- **Drought-Year Supplemental Water Purchases.** During drought conditions, State Water Project allocations may be insufficient to meet customer demand, requiring the District to purchase supplemental imported water at higher costs.
- **Banked Water Repurchase.** The District intends to repurchase approximately 1,200 acre-feet of previously banked water when market conditions become favorable. The estimated cost of this future purchase is approximately \$500,000 to \$600,000.

The District currently maintains approximately \$1.0 million in reserves. Because the proposed rates are established over a five-year planning period, the reserve funding is also phased in over FY2027 through FY2031 rather than collecting the full reserve need in a single year. Annual reserve contributions of approximately \$280,000 are included in the revenue requirement to increase the reserve balance toward the District's \$2.4 million target. This approach allows the District to prepare for known and unexpected costs without placing the full burden on customers in a single future year. Figure 2 illustrates the projected growth of the reserve fund over the five-year planning period.

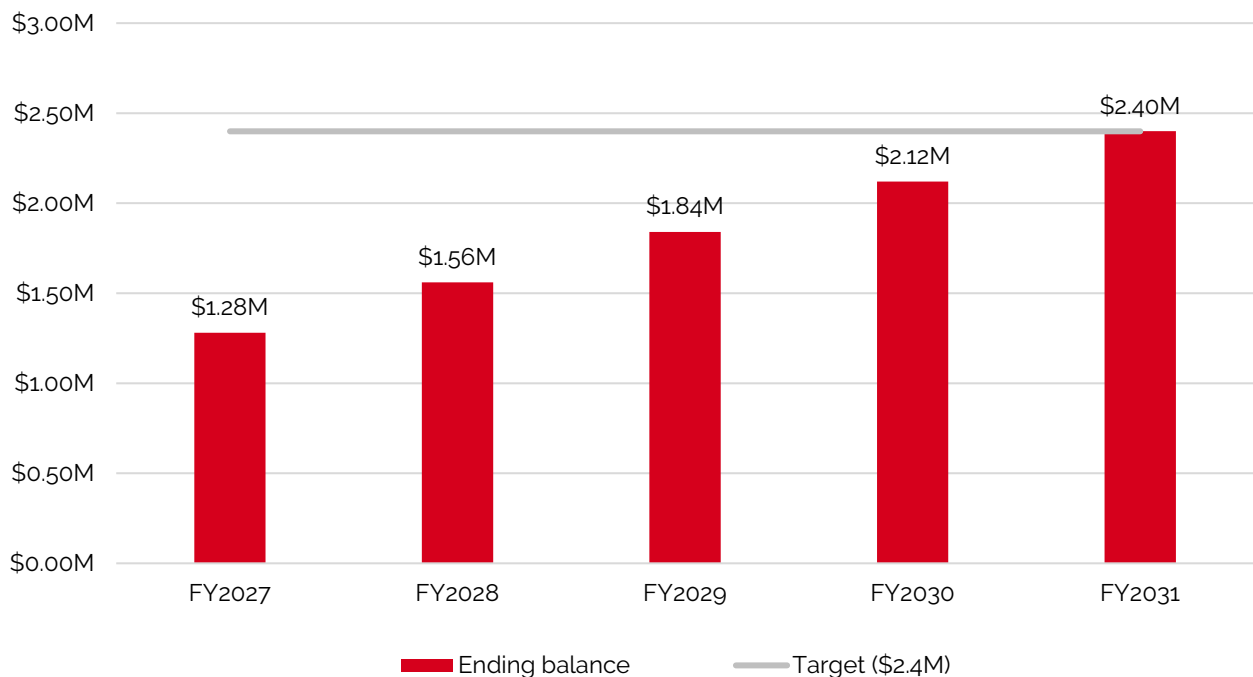


Figure 2. Reserve fund growth to the \$2.4 million target.

3.3 COST ALLOCATION

After the annual revenue requirement was established, operating costs were allocated between fixed and variable components based on the cost of providing water service. Costs incurred regardless of water use were classified as fixed costs and recovered primarily through the residential monthly fixed charge, while costs that vary with water production and delivery were classified as variable costs and recovered through usage rates applied to metered water use.

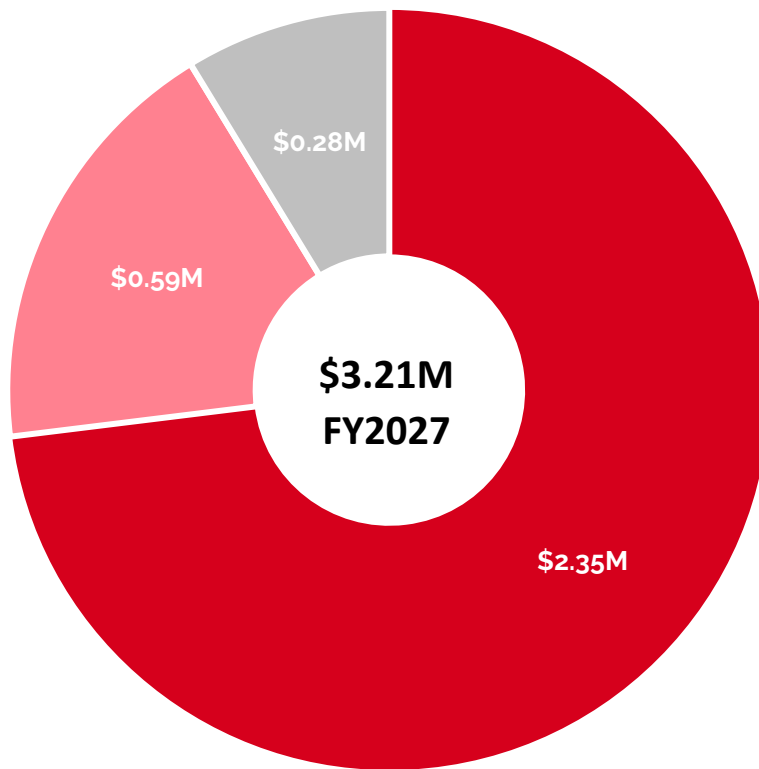
The resulting cost allocation reflects the operating characteristics of the District's water system. Most operating costs are fixed because they are incurred regardless of customer water use. Variable costs are primarily associated with pumping and water treatment, where operating expenses generally increase with water demand. Table 3 summarizes the cost allocation used to develop the proposed rates.

Table 3 – Cost Allocation Summary

Cost Category	% Variable	Basis
Payroll & Related	0%	Staffing levels are independent of water demand.
New General Manager	0%	Management function independent of water demand.
Purchased Water (Kern / SWP)	0%	Annual contractual water supply cost.
Pump Stations	79%	Based on evaluation of pumping energy demand and historical operating costs.
Water Treatment	48%	Based on treatment chemicals, electricity, and other production-related operating costs.
Transmission, Distribution & Lines	0%	Infrastructure maintained regardless of water demand.
General & Administrative	0%	Administrative and customer service functions independent of water demand.
Capital Repairs	0%	Capital maintenance required regardless of annual water production.

4 PROPOSED RATES

The methodology described in Section 3 establishes the District's annual revenue requirement and allocates costs between fixed and variable components. The proposed rates recover these costs through a residential monthly fixed charge, a residential usage rate, and a separate HOA irrigation usage rate. Figure 3 illustrates the allocation of the FY2027 revenue requirement between fixed operating costs, variable operating costs, and reserve contributions.



- Fixed O&M (fixed charge) - \$2.35M (73%)
- Variable O&M (volumetric) - \$0.59M (18%)
- Reserve Contribution - \$0.28M (9%)

Figure 3. FY2027 revenue requirement by cost type.

The residential usage rate was calculated by dividing the variable revenue requirement by the estimated annual billed water demand. The annual demand was estimated using FY2025 production records from the District's water treatment plant, which indicate total system production of approximately 63,239 thousand-gallon units. Because the District's billing records did not reconcile with treatment plant production records, this study applies a planning-level allowance of 10 percent for non-revenue water to estimate annual billed demand. The allowance accounts for water produced but not billed due to normal utility operations, including system flushing, fire protection activities, leakage, meter inaccuracies, and other sources of unbilled water. Applying the 10 percent allowance results in an estimated annual billed demand of approximately 56,915 thousand-gallon units, which was used to develop the proposed residential usage rate.

The proposed rates are based on the current number of active service connections and projected billed water demand available at the time of the study. If residential development resumes and additional homes connect to the District's water system, the District may update the rate study before the end of the five-year period to reflect the larger customer base. Increasing the number of active connections would allow fixed costs to be spread across more accounts and may reduce the residential monthly

fixed charge. Increased billed water use may also reduce the usage rate needed to recover variable costs, provided that operating costs do not increase by a greater amount.

As discussed in Section 3.2, the proposed rates include annual reserve contributions of \$280,000 in each year of the five-year planning period. Recovering these contributions primarily through the residential monthly fixed charge allows the District to build reserves gradually while minimizing the impact of future unforeseen expenditures on customer rates. The reserve contribution equates to approximately \$39.22 per residential account per month.

The proposed water rates for Fiscal Years 2027 through 2031 are presented in Figure 4.



Figure 4. Proposed residential and HOA irrigation water rates for FY2027 through FY2031.

4.1 COMPARISON TO CURRENT RATES

For residential accounts, the proposed rate structure differs from the current rate structure in two primary ways. First, the residential fixed charge is reduced from \$568.51 to \$367.97 in FY2027. Second, the existing three-tier usage rate structure is replaced with a uniform residential usage rate of \$10.29 per 1,000 gallons. Under the current rate structure, usage charges are assessed at \$5.35, \$8.02, and

\$12.03 per 1,000 gallons, respectively. The three tiers apply to monthly water use up to 5,000 gallons, between 5,000 and 10,000 gallons, and greater than 10,000 gallons. Table 4 presents representative monthly bills for residential accounts under the proposed FY2027 rates across a range of water demands.

Table 4 – Proposed Monthly Residential Water Bills under FY2027 Rates

Monthly Usage	Residential Fixed Charge	Residential Usage Charge	Proposed Residential Bill
1,000 gallons	\$367.97	\$10.29	\$378.27
5,000 gallons		\$51.46	\$419.43
10,000 gallons		\$102.92	\$470.89
15,000 gallons		\$154.38	\$522.35
20,000 gallons		\$205.84	\$573.81

Although the proposed residential usage rate is higher than the first two tiers of the existing usage rate structure, the reduction in the residential monthly fixed charge more than offsets the increase in usage charges. The proposed residential monthly fixed charge is reduced from \$568.51 to \$353.97, lowering the fixed portion of each residential bill by approximately \$215 per month before accounting for usage. In addition, the proposed uniform residential usage rate of \$10.29 per 1,000 gallons is lower than the existing third-tier rate of \$12.03 per 1,000 gallons. As shown in Figure 5, the proposed residential monthly bill is therefore lower than the current bill across all water use levels evaluated, with an average customer bill reduction of approximately \$179 per month.

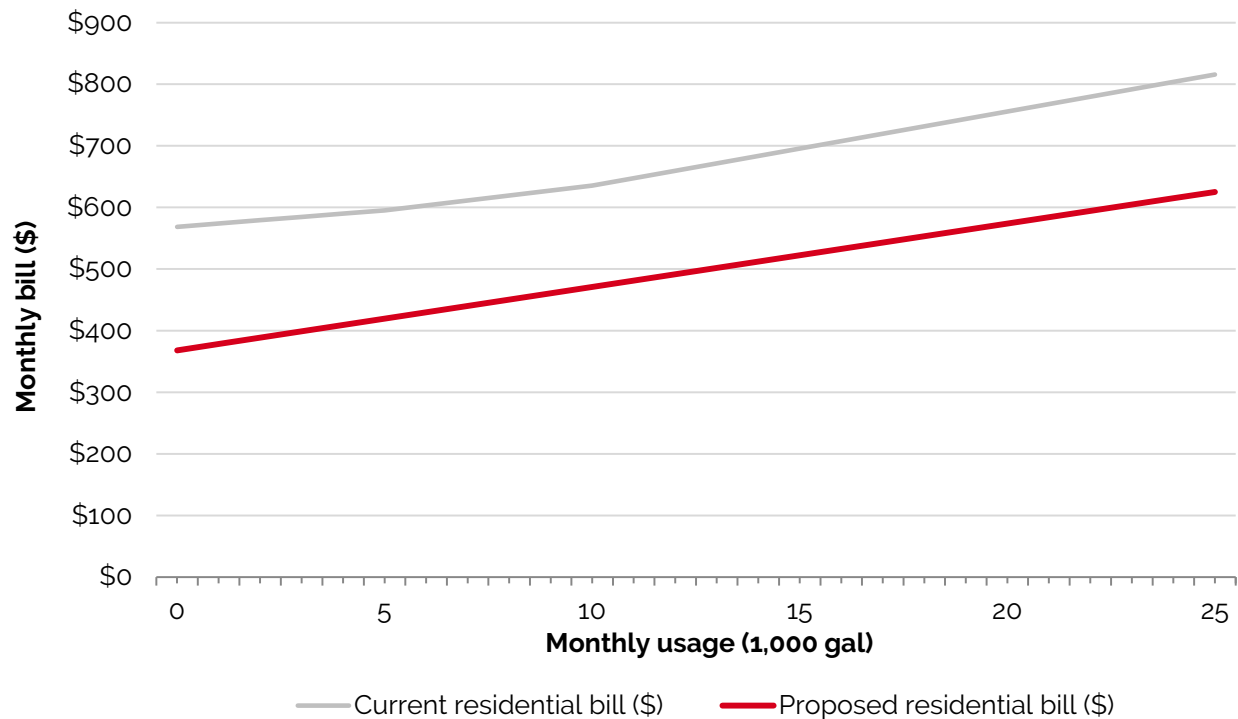


Figure 5. Residential bill comparison between existing and proposed rates, FY2027.

5 IMPLEMENTATION

The District must complete the public noticing requirements established by Proposition 218 before the proposed rates can be implemented. These procedures include providing written notice to property owners and customers at least 45 days before the public hearing and conducting a public hearing to receive comments and protests regarding the proposed rates. Under Proposition 218, the proposed rates may not be adopted if written protests are received from a majority of affected parcels. The District should complete this process in coordination with legal counsel.

This study is based on the best information available at the time of its preparation, including the District's financial records, customer information, operational data, and the purchased water costs established under the Kern County Water Agency agreement. Actual revenues and expenditures will vary over time as operating conditions, customer demand, water supply costs, reserve needs, staffing needs, and the number of active service connections change. Accordingly, the District should periodically review its financial condition, reserve balances, operating costs, water supply obligations, staffing needs, customer demand, and active service connections to confirm that revenues remain sufficient to recover the cost of providing water service. If actual costs increase more slowly than projected, the District may choose to implement rates below the maximum adopted rates. A comprehensive water rate study should be completed before the end of the five-year planning period, or sooner if significant changes occur that materially affect the District's revenue requirement.