



**WESTERN MUNICIPAL
WATER DISTRICT
COST OF SERVICE STUDY REPORT**
La Sierra Wastewater Service Area

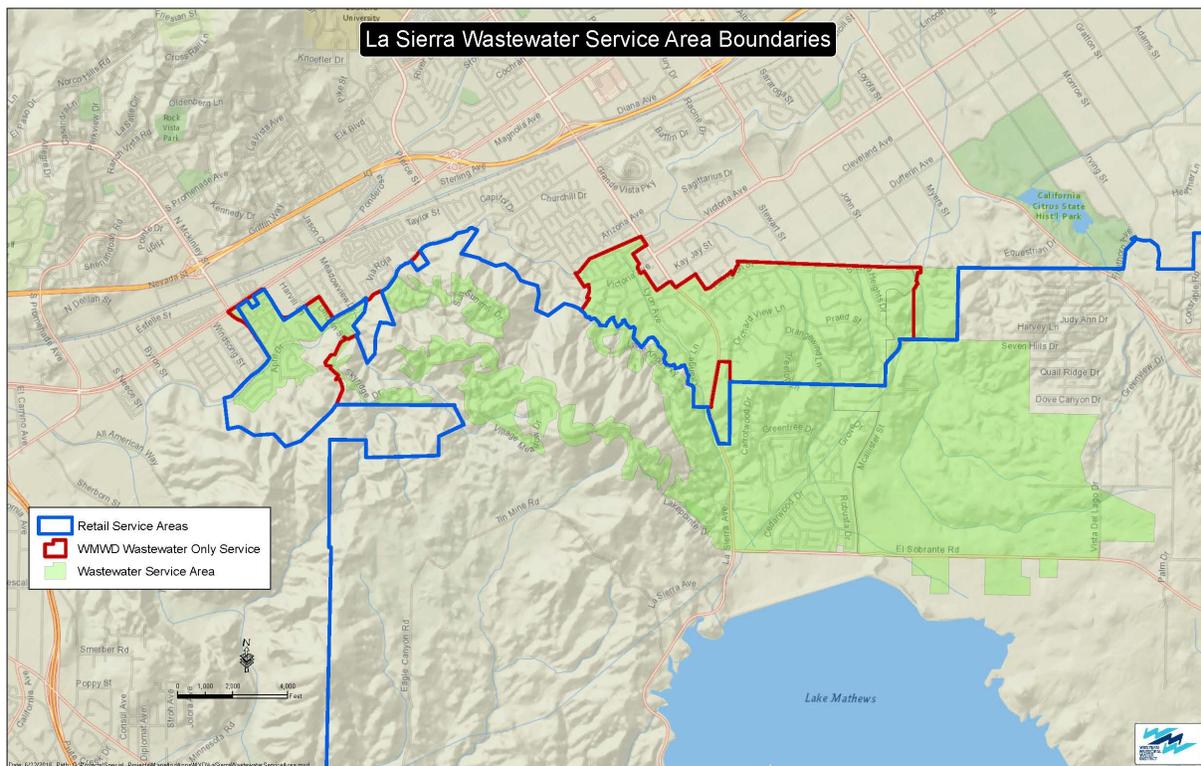
For rates effective July 1, 2021, July 1, 2022, July 1, 2023, July 1, 2024
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La Sierra Wastewater Service Area

Service Area Description

Western Municipal Water District (Western or District) provides wastewater (sewer) conveyance to 5,145 accounts in its La Sierra Wastewater Service Area. Western projects an annual one percent growth in accounts. The collected wastewater, averaging about 0.74 million gallons per day (MGD), flows to the Western Riverside County Regional Wastewater Authority (WRCRWA) plant. WRCRWA is a joint powers authority of which Western is one of the five member agencies. Tertiary treated wastewater from WRCRWA is ultimately released into the Prado Basin. Western customers served by the WRCRWA treatment plant are in the communities of Lake Hills, Victoria Grove, La Sierra and Home Gardens. For properties where Western does not provide water service, annual wastewater charges are collected on the County tax roll; the remaining properties are issued bills monthly.

Service Area Map



Rate Model Inputs & Revenue Requirement

Charges from WRCRWA. An input into the rate model are the fixed and variable charges from WRCRWA to treat and dispose of the wastewater generated by Western’s customers. In determining the rate charged to its customers, Western passes through the treatment and disposal charges from WRCRWA, as well as incorporates the costs of maintaining its own collection system. Due to timing, the Fiscal Year 2020-2021 adopted treatment and disposal charges from WRCRWA were used in this cost of service study (“study”) as the baseline rather

than waiting for WRCRWA to adopt their Fiscal Year 2021-2022 budget. WRCRWA charges were then escalated in the study by 3% annually based on historical experience. The WRCRWA charges are presented in Table 1 below.

Table 1 – WRCRWA Treatment and Disposal Charges to Western

	Adopted Fiscal Year 2020-2021 (A)	Fiscal Year 2021-2022 $B = A + (1 \times 3\%)$	Fiscal Year 2021-2022 $C = B + (1 \times 3\%)$	Fiscal Year 2021-2022 $D = C + (1 \times 3\%)$	Fiscal Year 2021-2022 $E = D + (1 \times 3\%)$
Fixed Charges	\$ 844,831	\$ 870,176	\$ 896,281	\$ 923,170	\$ 950,865
Variable Charges	\$ 346,340	\$ 356,730	\$ 367,432	\$ 378,455	\$ 389,809
Total WRCRWA Charges	\$1,191,171	\$1,226,906	\$1,263,713	\$1,301,625	\$1,340,673

Number of EDUs. Another input into the rate model is the number of EDUs assigned to residential and commercial customers within the service area. “EDU” stands for “equivalent dwelling unit” and means a unit of measurement equal to an approximation of the amount of sewage generated by an average single-family residence. Each single-family residential parcel is assigned one EDU, whereas commercial customers are assigned multiple EDUs depending on industry-determined standards for various types of businesses. Factors considered in the assignment of EDUs for commercial customers include, for example, facility square footage, number of restrooms, kitchen facilities, seating capacity, among others. EDU billing reflects the capacity and peak demand that a customer places on the wastewater system. Please reference Ordinance 393 for more information on how the number of EDUs is assigned to residential and commercial customers.

There are 5,166 EDUs associated with the customers in the La Sierra Service Area. Of the 5,166 EDUs, 45 EDUs represent residential customers in Tracts 20782 and 28956 that have a private sewer lateral that requires special cleaning by Western pursuant to a written agreement with the original property developer. These 45 customers are charged an additional \$5.00 per month to offset this maintenance cost. Table 2 below shows the number of EDUs.

Table 2 – Equivalent Dwelling Units (EDUs)

	FY 2021-2022 A	FY 2022-2023 $B = A + (1 \times 1\%)$	FY 2023-2024 $C = B + (1 \times 1\%)$	FY 2024-2025 $D = C + (1 \times 1\%)$
EDUs	5,166	5,217	5,268	5,321

Operating Budget. The final input into the rate model is Western’s Board-adopted biennial operating budget for Fiscal Year (FY) 2021-2022. The operating budget includes projected WRCRWA disposal charges (Table 1) and all expenses associated with operating and maintaining the collection facilities such as labor, vehicle use, system maintenance and supplies, debt service obligations, as well as asset replacement reserve funding and operating reserve funding. For Fiscal Years 2022-2023, 2023-2024, and 2024-2025 expenses were projected to increase based on historical trends. The projected operating budget is summarized

and presented in Table 3 below, and determines the revenue required from rates to recover the cost of providing wastewater service to customers.

Table 3 – Summarized Operating Budget/Revenue Requirement

Expense Category	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Labor and Benefits	\$ 448,679	\$ 478,875	\$ 511,130	\$ 545,585
Maintenance and Supplies	73,629	76,942	80,405	84,023
WRCRWA Pass-Through (Fixed and Variable Charges from Table 1)	1,226,906	1,263,713	1,301,625	1,340,673
Purchased Power	36,916	38,577	40,313	42,127
Administrative	1,055,467	1,102,963	1,152,596	1,204,463
Other Operating Expenses	5,891	6,156	6,433	6,723
Asset Replacement Reserve Funding	287,000	301,350	316,418	332,238
Debt Service	16,859	16,858	16,856	16,854
Operating Reserve Funding	69,087	64,422	57,942	51,402
Total Revenue Requirement from Rates	\$ 3,220,434	\$ 3,349,856	\$ 3,483,718	\$ 3,624,088

Revenue Shortfall Determination

To determine the proposed rates for wastewater service, the amount of revenue anticipated from rate payers based on current rates for the Fiscal Year 2021-2022 column and prior year proposed rates for the subsequent fiscal years is deducted from the Revenue Requirement in Table 3. The resulting unfunded revenue requirement (shortfall) is the amount that is needed to be received from a rate increase. This calculation is presented in Table 4 below.

Table 4 – Revenue Shortfall Determination

	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Revenue Requirement (from Table 3)	\$ 3,220,434	\$ 3,349,856	\$ 3,483,718	\$ 3,624,088
Less Revenue from Current Rates	-3,126,834	-3,252,202	-3,382,580	-3,518,742
Revenue Shortfall (amount needed from rate increase)	\$ 93,600	\$ 97,654	\$ 101,138	\$ 105,346

Proposed EDU Rate Increase

The proposed EDU rate increases needed to meet the Revenue Shortfall as presented in Table 4 above are shown in Table 5 below.

Table 5 – Rate Increase Needed to Meet Revenue Shortfall

	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Revenue Shortfall (Table 4) ÷ EDUs (Table 2) ÷ 12 months = Rate Increase per EDU per month	\$ 1.51	\$ 1.56	\$ 1.60	\$1.65

Current and Proposed Rates

Tables 6 summarizes the current rates and proposed rates needed to meet the revenue requirement for providing wastewater service, and the resulting new rate per EDU per month.

Table 6 – Current and Proposed Rates (Rate per EDU per month)

	Current Rate	Proposed FY 2021-2022	Proposed FY 2022-2023	Proposed FY 2023-2024	Proposed FY 2024-2025
Residential/Commercial (EDU Rate/Month)	\$ 50.40	\$ 51.91	\$ 53.47	\$ 55.07	\$ 56.72
Residential with Maintenance (additional \$5.00 per month) (EDU Rate/Month)	\$ 55.40	\$ 56.91	\$ 58.47	\$ 60.07	\$61.72

School Customer Class

Customers in this class are annually assigned a fixed number of EDUs based on the annual student count reported to the State of California, and with each student assumed to be discharging an average of two gallons of wastewater for every day of the year. The average daily volume of wastewater per student was calculated by reviewing domestic (indoor) water meter deliveries over a 12-month period for the schools in Western’s Water Recycling Facility and La Sierra service areas. The annual domestic water deliveries for the schools divided by 365 days in a year and then divided by the number of students resulted in two gallons per student per day.

The calculation of the number of EDUs assigned to a school is determined by using the following formula: Number of students x two gallons results in the average daily volume of wastewater. This result is then divided by 180 gallons based on Ordinance 393 to arrive at the number of EDUs. One EDU is the amount of wastewater an average single-family residential customer discharges to the wastewater system.

Effective Date of Rates

Rates are effective with all wastewater charges appearing on billing statements issued on or after the July 1 dates.