



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

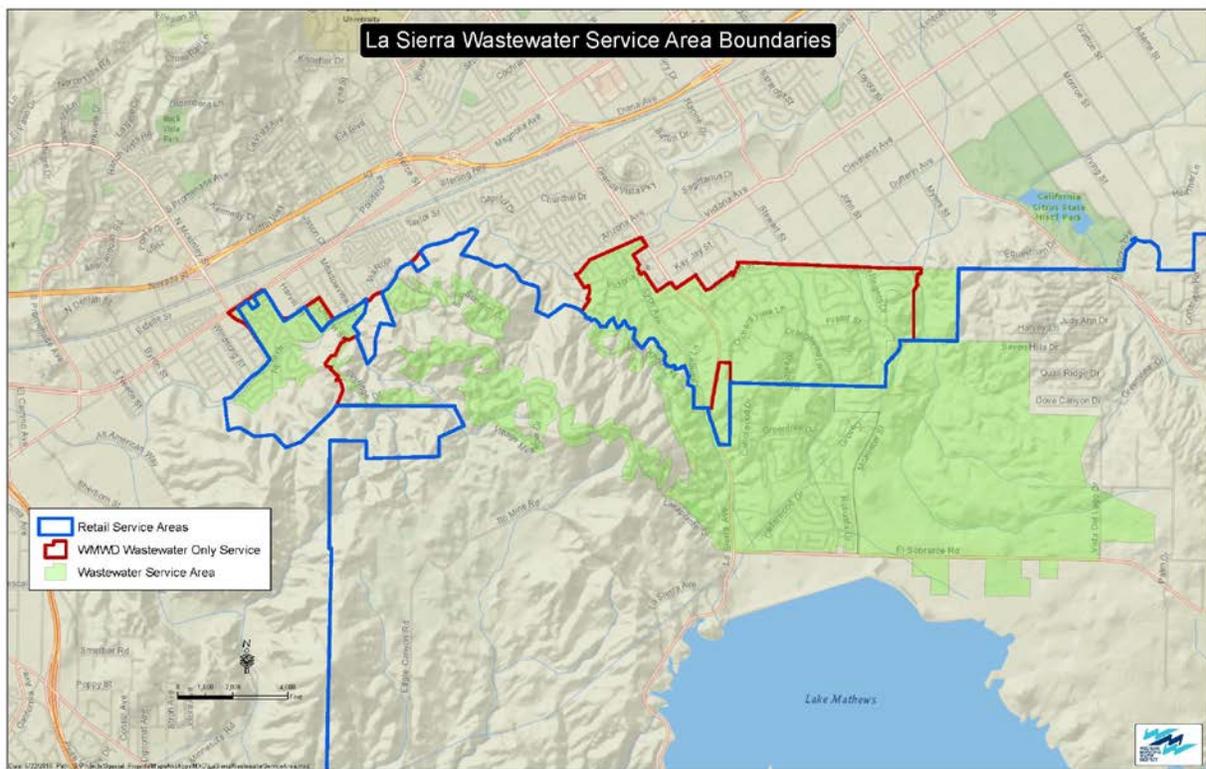
For rates effective October 1, 2018 and October 1, 2019
Version 1

La Sierra Wastewater Service Area

Service Area Description

Western Municipal Water District (Western or District) provides wastewater (sewer) conveyance to 4,711 accounts in its La Sierra Wastewater Service Area. The collected wastewater, averaging about 0.70 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 located 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 on a monthly basis.

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. The treatment and disposal charges from WRCRWA are presented in Table 1 below.

Table 1 – Budgeted WRCRWA Disposal Charges to Western

	Fiscal Year 2018-19	Fiscal Year 2019-20
Fixed Disposal Charges	\$ 774,281	\$ 797,509
Variable Disposal Charges	\$ 380,100	\$ 391,503
Total WRCRWA Charges	\$ 1,154,381	\$ 1,189,012

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 is equivalent to the quantity of wastewater an average single-family residential customer contributes to the wastewater system. 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.

There are 4,742.28 EDUs associated with the customers in the La Sierra Service Area. Of the 4,742.28 EDUs, (a) 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. And (b) 20.28 EDUs represent EDUs from two elementary schools.

Operating Budget. The final input into the rate model is the Board-adopted biennial operating budget for Fiscal Years (FY) 2018-19 and 2019-20. The operating budget includes the 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. The operating budget is summarized and presented in Table 2 below, and reflects the Revenue required from rates to cover the cost of providing wastewater service.

Table 2 – Summarized Operating Budget

Expense Category	FY 2018-19	FY 2019-20
Labor and Benefits	\$ 325,844	\$ 345,964
Maintenance and Supplies	90,271	90,580
WRCRWA Pass-Through (Fixed and Variable Charges from Table 1)	1,154,381	1,189,012
Purchased Power	40,000	40,000
Administrative	827,946	893,595
Other Operating Expenses	5,259	5,345
Asset Replacement Reserve Funding	330,000	260,000
Operating Reserve Funding	24,981	31,835
Total Revenue Requirement from Rates	\$ 2,798,682	\$ 2,856,331

Revenue Shortfall Determination

To determine the proposed rates for wastewater service, the amount of revenue anticipated from existing rate payers based on current rates is deducted from the Revenue Requirement in Table 2. The resulting unfunded revenue requirement (shortfall) is the amount that is needed to be received from a rate increase. This calculation is presented in Tables 3 and 4 below.

Table 3 – Revenue Shortfall Determination – FY 2018-19

Revenue Requirement (from Table 2, <u>first</u> column)	\$ 2,798,682
Less Revenue from Current Rates and Phased-in Schools Rate	
4,677 EDUs x \$48.44 x 12 months	- 2,718,647
45 EDUs with maintenance charge x \$53.44 x 12 months	- 28,858
20.28 EDUs from schools x \$35.94 x 12 months	- 8,746
20.28 EDUs x \$6.62 phased-in school rate x 9 months *	- 1,208
Revenue Shortfall (amount needed from rate increase)	\$ 41,223

Table 4 – Revenue Shortfall Determination – FY 2019-20

Revenue Requirement (from Table 2, <u>second</u> column)	\$ 2,856,331
Less Revenue from Current Rates and Phased-in Schools Rate	
4,677 EDUs x \$49.41 x 12 months	- 2,773,087
45 EDUs with maintenance charge x \$54.41 x 12 months	- 29,381
20.28 EDUs from schools x \$42.68 x 12 months	- 10,359
20.28 EDUs x \$7.84 phased-in school rate x 9 months *	- 1,431
Revenue Shortfall (amount needed from rate increase)	\$ 42,073

* See “School Customer Class” section below for this calculation.

Proposed EDU Rate Increase

The proposed EDU rate increases needed to meet the Revenue Shortfall as presented in Tables 3 and 4 above are shown in Tables 5 and 6 below.

Table 5 – Rate Increase Needed to Meet Revenue Shortfall – FY 2018-19

$\frac{\$41,223 \text{ (from Table 3)}}{4,722 \text{ EDUs} \div 9 \text{ months}^*}$ $(4,677 \text{ EDUs} + 45 \text{ EDUs with maintenance} = 4,722 \text{ EDUs})$	\$ 0.97 per EDU per month
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Table 6 – Rate Increase Needed to Meet Revenue Shortfall – FY 2019-20

$\frac{\$42,073 \text{ (from Table 4)}}{4,722 \text{ EDUs} \div 9 \text{ months}^*}$ $(4,677 \text{ EDUs} + 45 \text{ EDUs with maintenance} = 4,722 \text{ EDUs})$	\$ 0.99 per EDU per month
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* An effective date of Oct. 1, 2018 leaves 9 months remaining in the fiscal year.

Current and Proposed Rates

Tables 7 and 8 below summarize 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 7 – Current and Proposed Rates – FY 2018-19

	Current Rate	Proposed Rate	Change	Change as a Percent
Residential/Commercial (EDU Rate/Month)	\$ 48.44	\$ 49.41	\$ 0.97	2.0%
Residential with Maintenance (additional \$5.00 per month) (EDU Rate/Month)	\$ 53.44	\$ 54.41	\$ 0.97	1.8%
Schools (EDU Rate/Month)	\$ 35.94	\$ 42.56	\$ 6.62	18.4%

Table 8 – Prior and Proposed Rates – FY 2019-20

	Prior Rate	Proposed Rate	Change	Change as a Percent
Residential/Commercial (EDU Rate/Month)	\$ 49.41	\$ 50.40	\$ 0.99	2.0%
Residential with Maintenance (additional \$5.00 per month) (EDU Rate/Month)	\$ 54.41	\$ 55.40	\$ 0.99	1.8%
Schools (EDU Rate/Month)	\$ 42.56	\$ 50.40	\$ 7.84	18.4%

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 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 170 gallons to arrive at the number of EDUs (“170 gallons” is explained below).

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 WWRf 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.

School Rate Phase-in. Just prior to the July 2017 Wastewater Rate Public Hearing, the Riverside Unified School District expressed concern over the significant financial impact of moving from a “flow-based” wastewater charge to a “fixed EDU-based” charge (“billing basis change”). As a result, Western’s Board of Directors approved a reduced EDU rate for customers in the School Customer Class in order to phase in the financial impact over a couple of years. To ensure that no rate payer funds would be used to pay for the Schools reduced rate, property tax revenue from the General District fund was approved to be used to offset the reduced revenue from the school

customer class rate. This action serves the public purpose of furthering public education by allowing the school district to adjust its budget in future years rather than bearing the billing basis change all in one year.

The incremental revenue from the increase in the School rate for Fiscal Year 2018-19 is calculated as follows:

FY 2018-19 rate of \$42.56 per EDU per month minus the current rate of \$35.94 = \$6.62 per EDU. $\$6.62 \times 20.28 \text{ EDUs} \times 9 \text{ months remaining in the fiscal year from the effective date of October 1, 2018 through June 30, 2019} = \$1,208.$

The incremental revenue from the increase in the School rate for Fiscal Year 2019-20 is calculated as follows:

FY 2019-20 rate of \$50.40 per EDU per month minus the prior rate of \$42.56 = \$7.84 per EDU. $\$7.84 \times 20.28 \text{ EDUs} \times 9 \text{ months remaining in the fiscal year from the effective date of October 1, 2019 through June 30, 2020} = \$1,431.$

170 Gallons per EDU

The calculation of the number of EDUs assigned to a schools uses 170 gallons per day as the amount associated with one EDU. One EDU is the amount of wastewater an average single-family residential customer discharges to the wastewater system. 170 gallons per day was derived by summing the calendar year 2016 wastewater collected from the District's La Sierra Service Area, which has most of the District's residential customers and only has two commercial customers. The calendar year flows were reduced by the domestic water deliveries to the two commercial customers and then divided by 365 days to arrive at an average daily volume from the residential customers. The result was then divided by the number of residential customers to derive the average daily volume per residential customer, or 170 gallons.

Following is the calculation: 288,881,800 gallons during 2016, less 773,432 gallons from the two commercial customers, equals 288,108,368 gallons. This amount divided by 365 days equals 789,338 gallons per day. This amount divided by the 4,652 residential EDUs at the time equals 170 gallons.

For more information regarding this Cost of Service Report, please contact Daisy Banelos, Financial Analyst at dbanelos@wmwd.com or 951-571-7113.