WESTERN MUNICIPAL WATER DISTRICT COST OF SERVICE REPORT

Western Water Recycling Facility (WWRF) Wastewater Service Area

For rates effective July 1, 2021, July 1, 2022, July 1, 2023, July 1,2024

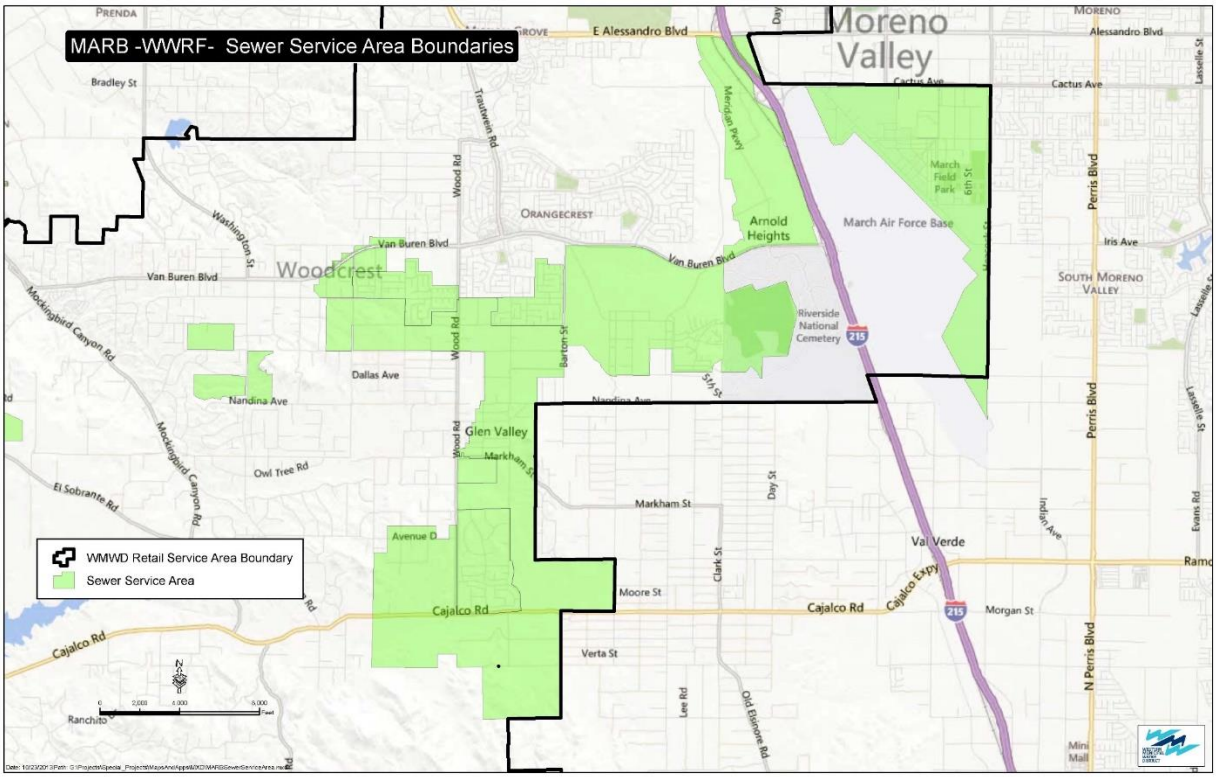
Version 1 – April 19, 2021

Western Water Recycling Facility Wastewater Service Area

Service Area Description

Western Municipal Water District (Western or District) owns and operates the Western Water Recycling Facility (WWRF), providing wastewater (sewer) collection and treatment for the March Air Reserve Base and customers in the communities of Mission Ranch, Boulder Springs, Cajalco/Woodcrest, and portions of the cities of Riverside and Perris. The District provides wastewater treatment and conveyance to about 1,700 accounts in its WWRF Service Area. All treated wastewater from the WWRF facility is fully utilized in Western's recycled water system. Supplemented with non-potable local groundwater from the Riverside Canal and surface water from the Colorado River Aqueduct, the tertiary treated recycled water from the WWRF plant is used by about 50 customers to irrigate landscaping and agriculture.

Service Area Map



Inputs into the District's Wastewater Rate Model

Operating Budget. An input into the rate model is the Board-adopted operating budget for Fiscal Year 2021-2022. The operating budget includes projected expenses associated with operating and maintaining the treatment and conveyance facilities such as energy, solids disposal, chemicals, labor, system maintenance, 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 operating budget is summarized and presented in Table 1 and Table 2 below, and determines the revenue required from rates to recover the cost of providing wastewater service to customers.

Table 1 – Summarized Operating Budget/Revenue Requirement (Treatment)

Expense Category	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Labor and Benefits	$ 563,559	$ 601,766	$ 642,591	$ 686,215
Operations, Maintenance and Supplies	491,598	513,720	536,837	560,995
Chemicals	208,031	217,392	227,175	237,398
Energy	287,391	300,324	313,838	327,961
Administrative	1,145,211	1,196,745	1,250,599	1,306,876
Other Operating Expenses	66,421	69,410	72,533	75,797
Asset Replacement Reserve Funding	75,797	79,5870	83,566	87,745
Debt Service Obligation				
Sub-Total	**$ 2,838,008**	**$ 2,978,944**	**$ 3,127,141**	**$ 3,282,988**
Less Third-Party Revenue*	- 41,734	- 41,734	- 41,734	- 41,734
Less Sale of Recycled Water to the Nonpotable Fund	- 513,388	- 538,585	- 555,486	- 577,840
Total Revenue Requirement from Rates	**$ 2,282,886**	**$ 2,398,625**	**$ 2,529,921**	**$ 2,663,414**

Table 2 – Summarized Operating Budget/Revenue Requirement (Conveyance)

Expense Category	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Labor and Benefits	$ 760,993	$ 812,266	$ 867,037	$ 925,549
Operations, Maintenance and Supplies	255,229	266,714	278,716	291,259
Chemicals	63,240	66,086	69,060	72,167
Energy	45,415	47,459	49,594	51,826
Administrative	880,319	919,933	961,330	1,004,590
Other Operating Expenses	5,721	5,978	6,247	6,529
Asset Replacement Reserve Funding	196,203	205,032	214,259	223,900
Debt Service Obligation	112,499	112,492	112,466	112,425
Sub-Total	**$ 2,319,619**	**$ 2,435,960**	**$ 2,558,710**	**$ 2,688,246**
Less Third-Party Revenue*	- 25,266	- 25,266	- 25,266	- 25,266
Less Sale of Recycled Water to the Nonpotable Fund	- 419,612	- 440,415	- 454,514	- 473,160
Plus Operating Reserve Funding	198,554	190,674	163,531	140,835
Total Revenue Requirement from Rates	**$ 2,073,295**	**$ 2,160,953**	**$ 2,242,461**	**$ 2,330,655**

*Third-Party Revenue is the projected amount to be received from an agreement with the city of Riverside to treat 0.5 million gallons per day (MGD) of their Orangecrest area wastewater flows.

Number of EDUs. The other 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 refer to Ordinance 393 for more information on how the number of EDUs is assigned to residential and commercial customers.

There are 5,026 EDUs associated with the WWRF treatment plant, and 4,892 EDUs associated with the WWRF conveyance (collection) system. The conveyance system EDU amount is lower than the treatment plant EDU amount because Westmont Village, a retirement community, owns and maintains their own conveyance system and, therefore, are not billed by the District for conveyance service. Westmont Village is one of two customers in the "Dedication Lift Station" customer class. Customers in this class have a dedicated District lift station that collects the customer's wastewater flows and then pumps the flows to the treatment plant. The lift station meter is used for billing purposes to calculate the amount of wastewater discharged in a thousand-gallon unit of measurement ("kgallon"). For the purpose of this Cost of Service Study, the projected annual gallons of flow from Westmont Village has been converted to a fixed number of EDUs.

Western is assuming a growth of 75 new EDUs each year of the four-year rate-setting period.

Table 3 – Equivalent Dwelling Units

Customer Type	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Residential and Commercial	4,802.08	4,880.59	4,959.29	5,038.19
Westmont Village (Treatment Only)	127.45	130.80	134.34	138.07
Sub-total	4,929.53	5,011.39	5,093.62	5,176.26
Schools	46.94	46.94	46.94	46.94
Mead Valley Elementary (special rate)	50.00	50.00	50.00	50.00
Total Treatment EDUs	**5,026.47**	**5,108.33**	**5,190.56**	**5,273.20**
Less Westmont Village	- 127.45	- 130.80	- 134.34	- 138.07
Less Mead Valley conveyance credit	- 7.00	- 7.00	- 7.00	- 7.00
Total Conveyance EDUs	**4,892.02**	**4,970.53**	**5,049.23**	**5,128.13**

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 1 and Table 2. The resulting unfunded revenue requirement (shortfall) is the amount that is needed to be received from a rate increase. The calculation of both treatment and conveyance revenue shortfall is presented in Table 4 and Table 5 below. Please note: Western

has an agreement with Eastern Municipal Water District for the provision of wastewater service to the Mead Valley Elementary school. The treatment rate is the same as for other Western customers; the conveyance rate for the school is reduced by 14% since Eastern provides 14% of the conveyance pipeline service.

Table 4 – Revenue Shortfall Determination (Treatment)

	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Revenue Requirement from Table 1	$ 2,282,886	$ 2,398,625	$ 2,529,921	$ 2,663,414
Less Revenue from Current/Proposed Rates (EDUs from Table 3 x applicable rate x 12 months)	2,234,454	2,317,079	2,419,838	2,566,635
Revenue Shortfall (amount needed from rate increase)	$ 48,432	$ 81,546	$ 110,083	$ 96,779

Table 5 – Revenue Shortfall Determination (Conveyance)

	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Revenue Requirement from Table 2	$ 2,073,295	$ 2,160,953	$ 2,242,461	$ 2,330,655
Less Revenue from Current/Proposed Rates (EDUs from Table 3 x applicable rate x 12 months)	1,988,553	2,105,223	2,186,249	2,275,770
Revenue Shortfall (amount needed from rate increase)	$ 84,742	$ 55,730	$ 56,212	$ 54,885

Proposed EDU Rates

The proposed EDU rates needed to meet the Revenue Shortfall as presented in Tables 4 and 5 above is shown in Table 6 below.

Table 6 – Rate Increases Needed to Meet Remaining Revenue Requirement

Rate Component Increase	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Treatment: (Revenue Shortfall from Table 4 ÷ Treatment EDUs from Table 3 ÷ 12 months)	$ 0.73	$ 1.28	$ 1.49	$ 1.47
Conveyance: (Revenue Shortfall from Table 5 ÷ Conveyance EDUs from Table 3 ÷ 12 months)	$ 1.41	$ 0.91	$ 0.78	0.86
Combined Rate Increase	$ 2.14	$ 2.19	$ 2.27	$ 2.33

Current and Proposed Rates

Tables 7-10 below summarize current rates and proposed rates needed to meet the revenue requirement for providing wastewater service.

Table 7 – Current and Proposed Rates for Treatment

	Current Rate	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Residential/Commercial/Schools (per EDU/month)	$ 37.12	$ 37.85	$ 39.13	$ 40.62	$ 42.09

Table 8 – Current and Proposed Rates for Conveyance

	Current Rate	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Residential and Commercial (per EDU/month)	$ 33.91	$ 35.32	$ 36.23	$ 37.01	$ 37.87

Table 9 – Current and Proposed Combined Treatment & Conveyance EDU Rates per Month

Customer Class	Current Rate	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Residential/Commercial/ Schools	$ 71.03	$ 73.17	$ 75.36	$ 77.63	$ 79.96

Table 10 – Current and Proposed Kgallon Rates

Dedicated Lift Station Customer Class	Current Rate	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
Westmont Village (per kgallon – treatment only)	$ 6.015	$ 6.381	$ 6.771	$ 7.218	$ 7.688
Ben Clark Training Center (per kgallon – Treatment and Conveyance)	$ 11.510	$ 12.336	$ 13.040	$ 13.795	$ 14.606

The treatment/conveyance kgallon rate is calculated as follows: [(Rate per EDU per month x 12 months) ÷ (gallons per EDU per day x 365 days)] x 1,000 gallons = kgallon rate (rounded).

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 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.

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 and 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 July 1 dates.