

## FOOTHILL MUNICIPAL WATER DISTRICT RATES AND CHARGES

As a water wholesale agency, Foothill Municipal Water District (FMWD) does not directly charge residential and other end-use customers for supplies. Instead, FMWD distributes imported water that it receives from the Metropolitan Water District of Southern California (MWD) to its member agencies. The FMWD member agencies deliver water to their retail customers based on the cost of service to those agencies.

These costs are broken into the following categories:

1. MWD imported water commodity rate – Tier 1 or Tier 2 based on purchase order
2. MWD readiness-to-serve charge
3. MWD capacity charge
4. Energy Charge passed through from Southern California Edison and Pasadena Water and Power
5. FMWD Administrative and Operations and Maintenance Charge
6. FMWD Capital Improvement and Rehabilitation Charge
7. Assessment for Kinneloa Irrigation District

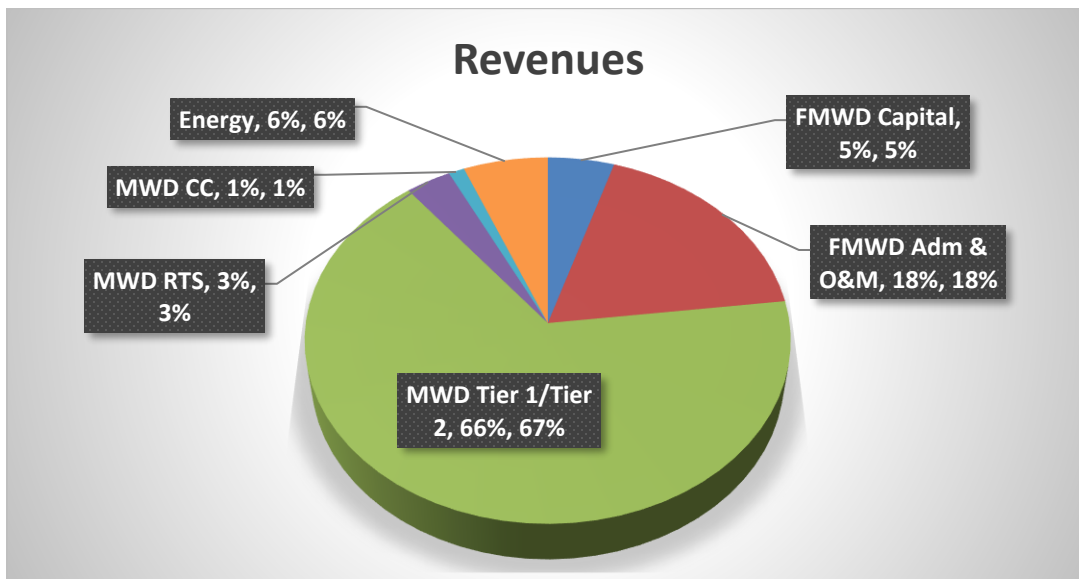
In order to derive the charges, FMWD staff must first prepare a budget. FMWD staff prepares a budget on a fiscal year basis. Once the preliminary budget is prepared, FMWD staff reviews it, along with associated preliminary rates and charges and reserve levels, with its retail agencies for comments. FMWD staff next reviews these items with the Finance Committee for further input. Staff then reviews the revised preliminary budget, rates and charges and reserves again with the retail agencies for any further input. It then has a Board workshop where the preliminary budget, rates and charges and reserves are reviewed. Revisions are again presented to the retail agencies. A final proposed budget, rates and charges and reserve levels are presented to the Board in June for action.

The table below shows the expenses from the budget adopted for fiscal Year (July through June) 2018-2019.

		FY 2018-2019 Budget
<b>REVENUES</b>		
	<b>1. Operating Revenues</b>	\$ 13,484,216
	<b>2. Non-Operating Revenues</b>	\$ 1,024,845
<b>TOTAL REVENUES</b>		<b>\$ 14,509,061</b>
<b>Use of Reserves (Put)</b>		<b>\$ 1,867,535</b>
<b>Offset of Parcel Charge &amp; Prop Tax (For KID only)</b>		<b>\$ -</b>
<b>Cash on Hand</b>		<b>\$ 16,376,596</b>

EXPENSES		
1. Commodity Costs		\$ 11,057,131
2. Wages & Employee Benefits		\$ 1,800,241
3. Repairs & Maintenance		\$ 283,660
4. Administration and General		\$ 220,465
5. Professional Services		\$ 213,300
6. Capital Improvements & Rehab		\$ 2,544,990
7. Equipment Replacement/Vehicle Fund Put		\$ 20,500
8. DEPRECIATION EXPENSE [Into R&R Fund]		\$ 215,000
<b>TOTAL EXPENSE</b>		<b>\$ 16,355,287</b>
<b>Income/(Loss)</b>		<b>\$ 21,310</b>

The chart below reflects the revenues from FMWD rates and charges used to pay the expenses listed above. FMWD charges make up about 23% of revenues for the District. In addition, in fiscal year 2018-2019, the District will be using about \$1.9 million from reserves that had been previously set aside with the intention of paying large capital expenses such as the replacement of the District's SCADA system.



The discussion below describes the rates and charges assessed by FMWD and identifies the amounts for each retail agency. All charges are on a calendar year basis although budgets are on a fiscal year (July through June) basis.

### I. MWD Charges

FMWD is 100 percent reliant on imported water supplies from MWD to distribute to its member agencies. **FMWD passes through all of the rates and charges associated with purchasing MWD**

**imported water into its service area to its member agencies proportional to their own imported water purchases.** The MWD Rate Structure applicable to FMWD is provided below:

*Purchase Orders*

Effective January 1, 2003, the District entered into a ten-year purchase order agreement with Metropolitan Water District of Southern California. The agreement established an Initial Base Firm Demand (IBFD) for the District of 12,219 acre-feet. A Tier 1 limit was established for water purchases which equaled 90% of the IBFD or 10,997 acre-feet. Purchases greater than the Tier 1 rate limit are purchased at the Tier 2 rate. The District also had a commitment to purchase 60% of its IBFD for the ten years or 73,314 acre-feet. As of December 31, 2012, the District had purchased 103,506 acre-feet. Although the agreement was set to expire effective December 31, 2012, it was extended for two more years through December 31, 2014.

Historically, Metropolitan included a water rate for replenishment service. This rate made water supplies available for local storage at a discount compared to the full service rate in exchange for the ability of an agency to interrupt those deliveries when called upon by Metropolitan. Water sold under this rate was not included as part of the IBFD. This rate has been eliminated by Metropolitan. At its November 2012 meeting, Metropolitan’s Board approved an action item to include historical replenishment deliveries in the Tier 1 limit. Thus, FMWD’s IBFD increased to 13,081 acre-feet and its Tier 1 limit increased to 11,773 acre-feet. Its purchase order commitment based on the extended two-years and increased IBFD, increased to 87,975 acre-feet for the twelve-year period. Foothill has met this obligation with its purchases. In 2014, the District extended for another ten years the purchase order commitment with Metropolitan.

FMWD allocates the Tier 1 limit to its member agencies based on historic purchases by those agencies.

The following is each agencies modified IBFD and Tier 1 allocation:

	<u>Base Allocation</u>	<u>Tier 1 Allocation</u>
Crescenta Valley Water District	2,393.3	2,154.0
La Cañada Irrigation District.	2,946.7	2,651.9
Las Flores Water Company	776.2	698.6
Lincoln Avenue Water Company	1,813.9	1,632.5
Mesa Crest Water Company	744.2	669.8
Rubio Cañon Land & Water Assoc.	1,037.9	934.1
Valley Water Company	<u>3,368.6</u>	<u>3,031.7</u>
	13,080.8	11,772.6

*MWD imported water commodity rate – Tier 1 or Tier 2*

The MWD imported water commodity rate is either Tier 1 or Tier 2 and is comprised of the following:

- **Tier 1 Supply Rate:** Recovers the cost of maintaining a reliable amount of supply.
- **Tier 2 Supply Rate:** Set at MWD’s cost of developing additional supply to encourage efficient use of local resources.
- **System Access Rate:** Recovers a portion of the costs associated with the delivery of supplies.
- **Water Stewardship Rate:** Recovers the cost of MWD’s financial commitment to conservation, water recycling, groundwater clean-up and other local resource management projects.
- **System Power Rate:** Recovers MWD’s power costs for pumping supplies to Southern California.
- **Treatment Surcharge:** Recovers the costs of treating imported water.

A table displaying these rates is provided below:

Category	Calendar Year 2018	Calendar Year 2019
Tier 1 Supply Rate (\$/AF)	\$209	\$209
Tier 2 Supply Rate (\$/AF)	\$295	\$295
System Access Rate (\$/AF)	\$299	\$326
Water Stewardship Rate (\$/AF)	\$55	\$69
System Power Rate (\$/AF)	\$132	\$127
Treatment Surcharge (\$/AF)	\$320	\$319
<b>Total Tier 1 Treated Rate (\$/AF)</b>	<b>\$1,015</b>	<b>\$1,050</b>
<b>Total Tier 2 Treated Rate (\$/AF)</b>	<b>\$1,101</b>	<b>\$1,136</b>

MWD has a meter at its connection with FMWD near the Rose Bowl. MWD charges FMWD monthly according to the amount of water taken the previous month recorded through this meter at the connection.

FMWD, in turn, meters each of its retail agencies and charges the Tier 1 or Tier 2 rate based on monthly deliveries of imported water through each agency’s meter and the above Tier 1 allocation to each agency.

*MWD Readiness-to-Serve Charge*

MWD’s Readiness-to-Serve (RTS) charge recovers a portion of MWD’s debt service costs associated with regional infrastructure improvements and is determined by the member agencies’ firm imported deliveries for the past ten years. Each member agency of MWD is allocated a percentage share of this yearly fixed charge. A standby charge, assessed by MWD on tax rolls, is used to offset the RTS charge by agency. In October of each year, a reconciliation is made of the total amount assessed to FMWD versus the amount collected through the tax roll and the amount billed to FMWD through its water bill. If the amount collected is higher than the

amount assessed, FMWD receives a credit on its water bill and passes it through to its agencies. If the amount collected is less than the amount assessed, FMWD has an additional charge for the difference on its water bill and must pass through this charge to its agencies.

A table displaying this charge and how it relates to FMWD is provided below:

	<b>CY 2018</b>	<b>CY 2019</b>
Total MWD RTS Charge	\$140,000,000	\$133,000,000
FMWD Share of RTS - %	0.57%	0.56%
FMWD Share of RTS - \$	\$786,564	\$745,756
Standby Charge Adjustment from MWD (estimated)	\$(298,092)	\$(298,022)
<b>FMWD RTS Revenue Required</b>	<b>\$488,472</b>	<b>\$462,734</b>

FMWD allocates this charge among its own member agencies in the same methodology MWD has allocated its RTS to its member agencies. The charge is allocated in proportion to a ten-year rolling average of imported water sales on a per acre foot basis.

<b>AGENCY</b>	<b>CY 2018 Monthly Charge</b>	<b>CY 2019 Monthly Charge</b>
<b>CVWD</b>	<b>\$8,206</b>	<b>\$7,931</b>
<b>LCID</b>	<b>\$10,962</b>	<b>\$10,480</b>
<b>LFWC</b>	<b>\$2,303</b>	<b>\$2,142</b>
<b>LAWC</b>	<b>\$3,451</b>	<b>\$3,309</b>
<b>MCWC</b>	<b>\$2,872</b>	<b>\$2,750</b>
<b>RCLWA</b>	<b>\$1,351</b>	<b>\$908</b>
<b>VWC</b>	<b>\$11,561</b>	<b>\$11,041</b>
<b>FMWD</b>	<b>\$40,706</b>	<b>\$38,561</b>

#### *MWD Capacity Charge*

The MWD capacity charge was developed to recover the costs of providing distribution capacity use during peak summer demands. The aim of this charge is to encourage member agencies to reduce peak day demands during the summer months (May 1 – September 30) and shift usages to the winter months (October 1 – April 30), which will result in more efficient utilization of MWD existing infrastructure and defers capacity expansion costs. Currently, MWD’s capacity charges for CY 2018 and CY 2019 are \$8,700/cfs and \$8,600/cfs respectively.

The capacity charge is applied to an agency’s maximum usage rate, which is the highest daily average usage (per cfs) for the past three summer periods. A table displaying this charge to FMWD for 2019 is provided below:

<b>Peak Flow 2015 (cfs)</b>	<b>Peak Flow 2016 (cfs)</b>	<b>Peak Flow 2017 (cfs)</b>	<b>3-Year Max (cfs)</b>	<b>Capacity Charge</b>
14.9	17.3	18.6	18.6	\$159,960

FMWD uses the peak daily flow to allocate the capacity charge to its retail agencies. The peak daily flow at FMWD's service connection may not match the flows to the retail agencies for the same day due to operational requirements. For 2019, the capacity charge to the retail agencies based on their flow during the FMWD peak is as follows:

Agency	Flow for CY 2019 Charge	Percentage of Flow for CY 2019 Charge	CY 2019 Annual Charge
CVWD	4.0	23%	\$ 36,119
LCID	4.6	26%	\$ 41,417
LFWC	1.4	8%	\$ 12,537
LAWC	3.0	17%	\$ 26,865
MCWC	0.8	4%	\$ 6,977
RCLWA	-	0%	\$ -
VWC	4.0	23%	\$ 36,044
<b>Total</b>	17.9	100%	\$ 159,960

### III. ENERGY CHARGE

FMWD has two pump stations to lift water to three zones within its service area. Both pump stations require the use of a significant amount of energy to accomplish these lifts. The first pump station is in the City of Pasadena and FMWD buys energy from Pasadena Water and Power to run the station. The second pump station is in La Canada Flintridge and FMWD buys power from Southern California Edison to run the station.

Each retail agency is charged power costs based on the proportionate amount of energy used for delivering water to that agency compared to other agencies, times the amount of the energy bill for that month or portion of month. Bills are tendered in arrears. If an agency causes an increase in the peaking charge by a power provider, that agency is assessed increased charges.

The following table shows the total paid for energy by retail agency for calendar year 2017. It also shows the amount of water that was delivered to that agency and the acre-foot cost.

	Actual to 12/31/2017	CY 2017 Sales	Avg \$ Per AF
CVWD - Main Plant	\$ 114,509	2,209	\$ 52
CVWD Berkshire	\$ 191,846	2,209	\$ 87
LCID - Main Plant	\$ 125,415	2,421	\$ 52
LCID - Berkshire	\$ 102,601	1,189	\$ 86
LFWC	\$ 27,840	427	\$ 65
LAWC	\$ 50,676	832	\$ 61
MCWC	\$ 32,218	622	\$ 52

<b>RCLWA</b>	\$ -	-	\$ 63
<b>VWC</b>	\$ 126,424	2,459	\$ 51
<b>Total</b>	<b>\$ 771,529</b>	<b>8,970</b>	<b>\$ 86</b>

*For projection purposes, Rubio's rate is average of Las Flores and Lincoln Avenue*

Please note that FMWD must use both pump stations to deliver water to Crescenta Valley Water District and parts of La Canada Irrigation District.

#### **IV. FMWD CHARGES**

Because of the large amount of rehabilitation work required for FMWD's distribution system and minor amount of variable costs associated with FMWD's budget outside of imported water, the Board decided effective January 1, 2010 to change FMWD's rates to charges proportional to each agency's use of the FMWD system. These charges are the Administration and Operations and Maintenance Charge and the Capital and Rehabilitation Charge.

These charges also support FMWD being able to obtain financing should it be needed by increasing its rating with credit agencies, thus decreasing the interest rate of the financing. When FMWD began its rehabilitation program, it was not able to obtain financing because of its low reserve levels and rate structure in place at that time.

##### *Administration and Operations and Maintenance Charge*

The Administrative and Operations and Maintenance Charge is based on the adopted budget and uses a ten-year average of deliveries to account for the charge by retail agency. Groundwater pumping rights leased by an FMWD retail agency outside of District agencies is considered water delivered and sold by Foothill for calculation of this charge. This policy is because although an agency is able to temporarily roll off FMWD, FMWD must still continue to maintain the system and pay the associated expenses of maintaining the system and administrative costs. By not including the groundwater leases there was a cost shift to those agencies which did not temporarily roll off the system. This ten-year average is also frozen so agencies can have predictability in charges.

A table displaying the calendar year 2018 and 2019 FMWD Administration and Operations and Maintenance charge is shown below.

	<b>CY 2018 Charge</b>	<b>CY 2019 Charge</b>
<b>CVWD</b>	\$ 470,201	\$ 498,469
<b>KID</b>	\$ 8,505	\$ 9,550
<b>LCID</b>	\$ 583,121	\$ 618,178
<b>Las Flores</b>	\$ 136,320	\$ 144,516
<b>Lincoln</b>	\$ 336,519	\$ 356,751
<b>Mesa</b>	\$ 150,434	\$ 159,478

<b>Rubio</b>	\$ 191,861	\$ 203,396
<b>Valley</b>	\$ 663,106	\$ 702,972
<b>Total</b>	\$ 2,540,067	\$ 2,693,310

*Capital Improvement and Rehabilitation Charge*

The District assesses a Capital Improvement and Rehabilitation Charge for improvements, repairs or replacement made to the District’s infrastructure where the value is greater than \$10,000. This charge is again based on a ten-year average of deliveries including groundwater leased from an agency outside of FMWD.

Shown below is a table reflecting the 2018 and 2019 Capital Improvement and Rehabilitation Charge.

	<b>FY 2018 Charge</b>	<b>CY 2019 Charge</b>
<b>CVWD</b>	\$ 204,665	\$ 204,665
<b>KID</b>	\$ -	\$ -
<b>LCID</b>	\$ 204,473	\$ 204,473
<b>Las Flores</b>	\$ 24,392	\$ 24,392
<b>Lincoln</b>	\$ 83,074	\$ 83,074
<b>Mesa</b>	\$ 37,475	\$ 37,475
<b>Rubio</b>	\$ 52,977	\$ 52,977
<b>Valley</b>	\$ 88,349	\$ 88,349
<b>Total</b>	\$ 695,405	\$ 695,405

*Charges to Kinneloa Irrigation District*

Although Kinneloa Irrigation District is a retail agency of FMWD, it is not physically connected to FMWD’s distribution system and has never taken imported water from FMWD. It is unlikely that in the next 20 years, Kinneloa would take any imported water. Should something happen to its wells, it is anticipated that Kinneloa would have Pasadena pump its groundwater and deliver it to them using an interconnection. However, FMWD still spends some administrative time on Kinneloa and there are costs incurred through Board meetings. These costs are collected through a charge established specifically for Kinneloa.

The charge is based on the number of meters Kinneloa has on June 30 of each year compared to the number of meters the rest of the retail agencies have on June 30 of each year. That percentage of meters is then used to calculate the administrative and professional service charge for Kinneloa. Additionally, an estimate of MWD’s readiness-to-serve charge that is collected on Kinneloa’s tax roll and property taxes is subtracted from the amount owed by Kinneloa. For fiscal year 2018-2019, Kinneloa has 2.4% of all meters within the retail agencies’ service areas. The



administrative and professional service costs allocated for Kinneloa are \$17,128, the RTS offset is estimated at \$7,125 and property tax offset is estimated at \$1,030. Thus, the total charge on Kinneloa's invoice from FMWD is \$8,973.