

## Smart Meters Saving Money, Increasing Efficiency

Eastern Municipal Water District (EMWD) has embarked on a multi-year effort to install automated meters, which will improve customer service options, save on labor costs and minimize water loss.

EMWD plans to install 44,000 of the meters this year as part of an accelerated installation plan for Automated Metering Infrastructure, commonly known as AMI, that was authorized by the Board of Directors in 2014. The program is one example of the ways EMWD is investing in projects and equipment to benefit customers.

### Automated meter installations

**2017:** 44,000

**2018:** 32,000

**2019:** 5,000



So far, approximately 76,000 highly efficient devices have been installed, accounting for nearly half of EMWD's 151,299 meters. The project is scheduled for completion in June 2019.

The real advantage of AMI technology is that it provides a remote data link between the meter and the water district for real-time monitoring. Unlike traditional drive-by or walk-by meter reading, AMI technology allows for near hands-free evaluation with fewer vehicle trips and employee hours.

These smart meters provide daily information about how much water is used by individual customers and can alert them when they are nearing their water budget. With AMI, EMWD will be able to issue leak detection notifications and plans an online site where customers can access information about their water use.

The \$12 million AMI program is funded in part by grants from the California Department of Water Resources for programs that increase water conservation and energy savings and reduce carbon emissions.

### NOTICE OF PUBLIC HEARING

**Date:** November 15, 2017

**Time:** 9 a.m.

**Location:** Eastern Municipal Water District Board Room  
2270 Trumble Road, Perris, CA 92570

The Board of Directors of Eastern Municipal Water District (EMWD) will conduct a public hearing to consider changes to the water and sewer rate structures and rates set forth herein. The proposed changes are based on a cost of service study that was completed and adopted by the Board in March 2017.

Any customers or property owners may appear at the hearing to make comments regarding the proposed change. To file an opposition, property owners and tenants of real property who are directly liable to pay water bills may submit a written protest.

Written protests may be mailed or delivered in-person to **Eastern Municipal Water District, Attention: 2017 Proposed Rates, PO Box 8300, Perris, CA 92572-8300**. Protests must include: your name, parcel number and/or service address, and your signature. Protests submitted by email or other electronic means do not count as formal written protests. All written protests must be received prior to the conclusion of the public hearing.

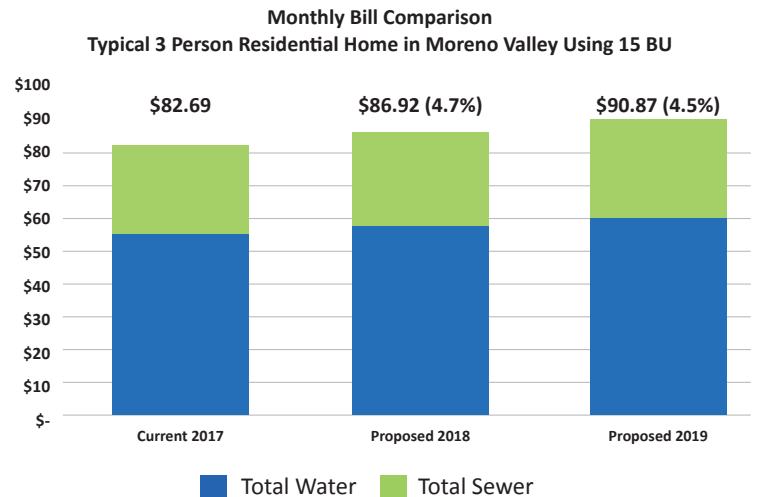
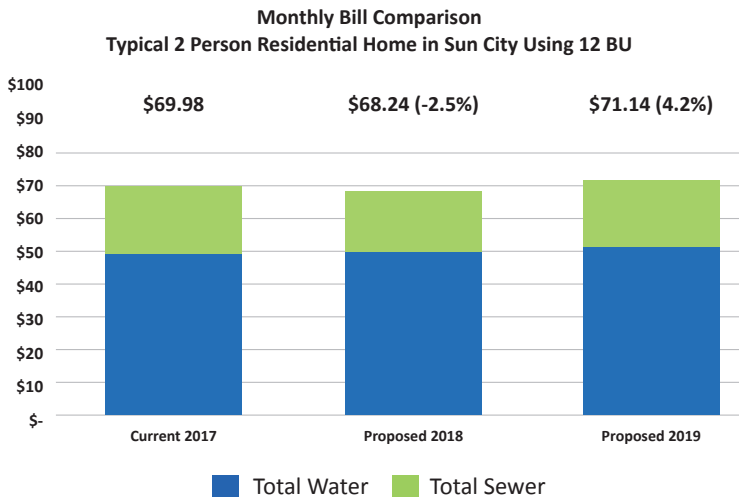
More information about the proposed changes is available in this document and online at: [www.emwd.org/ProposedRates](http://www.emwd.org/ProposedRates).

EMWD is a government agency that provides services based on the actual cost of operation and maintenance. The EMWD Board of Directors adopts a biennial operating budget that goes into effect on July 1, each year. Part of that process is setting rates. One of EMWD's critical business objectives is to keep costs, and therefore rates, as low as possible for all customers. When compared with other agencies providing similar services in the surrounding area, EMWD's rates are consistently among the lowest.

## How Will This Impact My Rates?



The proposed water and sewer rate adjustments are based on a study completed in March 2017 that evaluates the cost of providing water service, which includes operations and maintenance. Most typical customers who stay within their water budgets would see a decrease in their water bill and a slight increase for sewer, based on the number of people in a household and the assumed burden they place on the wastewater system.



# Proposed water budget adjustments in line with State standards

Under the proposed changes, water budgets would be adjusted to meet new State standards that call for making water efficiency a permanent way of life.

## Individualized Water Budgets

The current formula uses 60 gallons per person, per day, but beginning with bills dated on or after January 1, 2018, EMWD will reduce that daily allocation to 55 gallons per person per day, based on efficiency standards set by state law.

Under the current structure, the majority of budgets assume that 100 percent of a home's irrigated area is covered with turf grass. In reality, most households do not use their full water budget because very few homes have yards with all turf grass.

Beginning with bills dated on or after January 1, 2018, water budgets for homes connected to the water system before Sept. 1, 2008, will be realigned to more closely reflect current water efficiency trends and a mix of conventional turf and drought-tolerant landscaping, decreasing from 100 percent to 80 percent of the evapotranspiration rate - the measure of irrigation needs based on rainfall, temperature and other climate factors.

### Newer homes feature more water-efficient irrigation systems and landscaping and are assigned a conservation factor (CF) as follows:



*Budgets for homes connected before September 1, 2008, will decrease from 100 percent to 80 percent of the evapotranspiration rate*



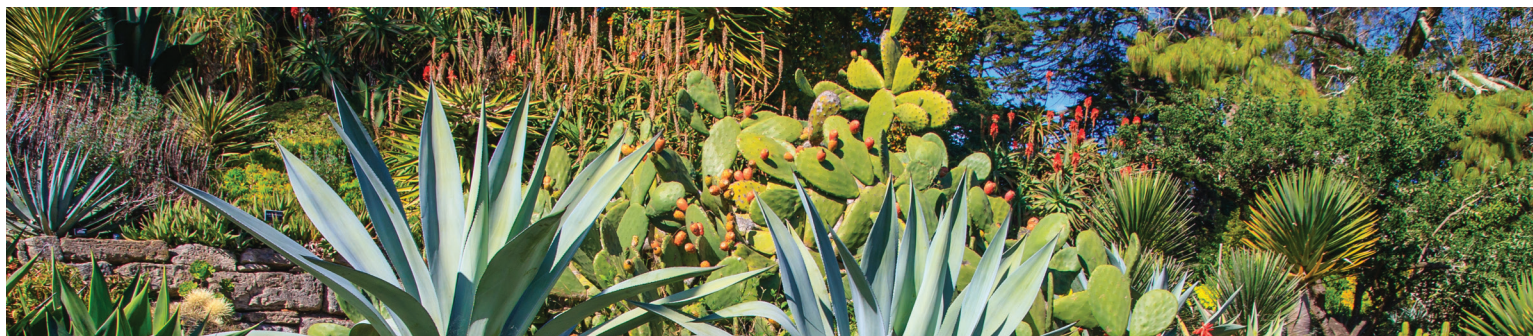
*Allotments for homes connected between Sept. 1, 2008, and Dec. 21, 2010, are already at 80 percent and will not be changed*



*Homes connected between Jan. 1, 2011, to May 31, 2015, are at 70 percent and will not be changed*



*Homes connected on or after June 1, 2015, are at 50 percent and will not be changed*



# Understanding the proposed water rate structure

EMWD implemented the use of water budgets for its residential customers almost a decade ago. All residential customers receive a monthly water budget allocation, which is customized to meet their specific household and landscape irrigation needs. Currently, a customer's Tier 1 rate corresponds directly with the indoor budget, Tier 2 rate corresponds with the outdoor budget, and Tier 3 and 4 rates cover any usage in excess of the total budget.

Under the proposed new rate structure, customers would continue to receive water budgets based on household and landscape size, but these budgets would no longer align with a specific rate.

Instead, the amount of water billed at each tier would be based on the availability of specific water supply sources – groundwater,

treated groundwater and more expensive imported supplies. All residential customers will be billed at the "Tier 1 – Low Volume" rate for the first 20 percent of their monthly water budget as that is the proportional amount of local, lowest-cost supplies available. The remaining portion of the water budget will be billed at the "Tier 2 – Budgeted rate" for budgeted supplies. Tier 3 and 4 rates cover any usage in excess of the total budget.

These changes would maintain the principles behind EMWD's rate structure – to reflect the costs of service while rewarding customers who use less and penalizing those who are wasteful. Under the proposed rate structure, water efficient households may realize a cost savings. Customers who stay within their budget would see minimal impact.



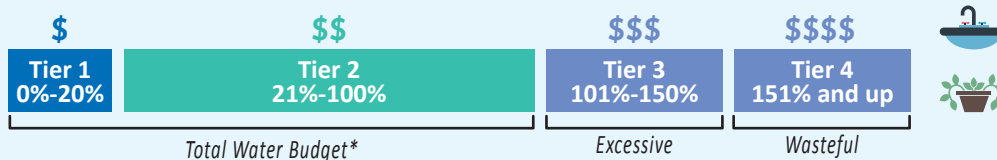
Calculate your new bill under the proposed changes using our online estimator tool at [www.emwd.org/ProposedRates](http://www.emwd.org/ProposedRates)

## CURRENT INDIVIDUALIZED WATER BUDGET & TIER ALIGNMENT



\*60 gallons per person per day  
\*\* Conservation Factor up to 1.0

## PROPOSED INDIVIDUALIZED WATER BUDGET & TIER REALIGNMENT



\* 55 gallons per person per day & Conservation Factor up to 0.8

*The Conservation Factor (CF) is based on a landscape's water use efficiency. A yard with less grass and more low-water landscaping along with more efficient irrigation systems would have a lower CF. When the CF decreases, so does the percentage of the evapotranspiration rate -- the varying amount of irrigation needed to keep plants alive, based on climate -- which is changing from 100 percent to 80 percent for homes built prior to September 2008.*

## HOW YOUR WATER BUDGET IS CALCULATED

The proposed rates were calculated to recover the costs of providing water service, and to proportionately allocate those costs among customers. EMWD uses the following formulas to determine household-specific, monthly water budgets, which cover efficient water use. Customers who stay within their water budgets pay the lowest cost for water.

### HOUSEHOLD NEEDS =

$$\text{BU} = \text{Household Size} \times \text{GPCD} \times \text{Days} \div 748 \text{ gallons}$$

Household size = the number of persons per household

GPCD = gallons per person per day

Days = days in the billing cycle

BU = Billing units allocated for your household needs  
(1 BU = 100 cubic feet)

### LANDSCAPE IRRIGATION NEEDS =

$$\text{BU} = \text{ET} \times \text{CF} \times \text{DF} \times \text{LA} \times 0.62 \times 0.001337$$

BU = Billing units allocated for your landscape irrigation needs  
(1 BU = 100 cubic feet)

ET = Sum of observed ET values for the billing period in inches

CF = Conservation Factor\*

DF = Drought Factor\*\*

LA = Landscape Area in square feet

0.62 = Conversion Factor to convert inches per sq. ft into gallons per sq.ft.

0.001337 = Conversion Factor to convert gallons into billing units.

\*The Conservation Factor (CF) varies by account. The proposed water budget would reduce the conservation factor for homes currently at 1.0 to 0.8

\*\*The current Drought Factor is 1.0

### FOR EXAMPLE:

Average household needs for a typical 3-person residential home in Moreno Valley: **15 BU**

#### Household Calculation:

$$7 \text{ BU} = 3 \times 55 \times 30 \div 748$$

#### Landscape Calculation:

$$8 \text{ BU} = 3.93 \times 0.8 \times 1.0 \times 3,000 \times 0.62 \times 0.001337$$

The formulas above are used to determine a customer's total water budget, which is the amount of water each household and irrigated area needs.

## Proposed Water Service Rates

↓ All of the proposed tiered rates for 2018 and tier 1, 2 and 3 rates for 2019 are lower than current tier rates.

| Water Consumption Rates per billing unit (BU)*   | Current | Proposed           |                    |
|--|---------|--------------------|--------------------|
|  |         | Effective 1/1/2018 | Effective 1/1/2019 |
| <b>Areas served:</b> Perris Valley, Moreno Valley, Good Hope, Mead Valley, Juniper Flats, Lakeview, Nuevo, Romoland, Menifee (Sun City), Hemet, Valle Vista, Diamond Valley, Winchester, Canyon Lake, and Murrieta (Murrieta Hot Springs and French Valley). |         |                    |                    |
| Tier 1: Low Volume   | \$1.90  | <b>\$1.03</b> ↓    | <b>\$1.07</b> ↓    |
| Tier 2: Budgeted   | \$3.47  | <b>\$3.35</b> ↓    | <b>\$3.43</b> ↓    |
| Tier 3: Excessive  | \$6.22  | <b>\$5.52</b> ↓    | <b>\$5.67</b> ↓    |
| Tier 4: Wasteful   | \$11.39 | <b>\$11.27</b> ↓   | \$11.59            |

| Daily Service Charge based on Meter Size | Current | Proposed           |                    |
|--|---------|--------------------|--------------------|
|  |         | Effective 1/1/2018 | Effective 1/1/2019 |
| 5/8 inch                                 | \$0.39  | <b>\$0.39</b>      | \$0.42             |
| 3/4 inch                                 | \$0.39  | <b>\$0.39</b>      | \$0.42             |
| 1 inch                                   | \$0.39  | \$0.53             | \$0.57             |

| Water Supply Reliability Capital Projects Charge per Equivalent Meter Size | Current Monthly | Proposed Monthly**        |                           |
|--|-----------------|---------------------------|---------------------------|
|  |                 | Charge Effective 1/1/2018 | Charge Effective 1/1/2019 |
|  | \$3.25          | \$3.35                    | \$3.65                    |

\*1 BU = 748 gallons

\*\*Amount will be prorated based on billing cycle.



Customers can calculate their new bill under the proposed changes using the online tool at [www.emwd.org/proposedrates](http://www.emwd.org/proposedrates)

# Proposed Sewer Service Rates

Many different components go into the operation of the sewer system, such as electricity, regulatory requirements, the operation and maintenance of collection pipes and lift stations to preserve pressure, and treatment. These costs must be considered when setting sewer rates.

EMWD's residential sewer rates are calculated using a baseline Daily Service Charge and block factors based on household occupancy.

Residential customers are assigned to one of four sewer blocks, determined by the number of people per household. Households with one to two people fall into block 1, those with seven or more residents would be in block 4. Larger households have a higher block factor based on the assumption that they have higher sewer flows because they do more laundry and dishes, take more showers, etc. and, as a result, are charged a higher sewer rate.

The proposed sewer blocks better reflect the current proportional demands on the wastewater system based on updated customer data. Blocks 1 and 4 proportions are being reduced. This will likely result in a cost savings despite a minimal increase in the rates.

It is proposed that the Daily Service Charge drop for block 1 customers starting for bills dated on or after January 1, 2018, and increase slightly for the other three block factors.

For a typical single-family residential sewer customer in block 2, living in Moreno Valley, the monthly sewer charges with the proposed Daily Service Charge would increase from \$25.22 to \$26.46.

*For a typical block 1 customer, living in Sun City, the monthly sewer charges would decrease from \$19.05 to \$16.12.*

## SEWER BLOCK FACTORS

| Block | People per Household | Current Factor | Proposed Factor |
|-------|----------------------|----------------|-----------------|
| 1     | 1-2                  | 75%            | 60%             |
| 2     | 3-4                  | 100%           | 100%            |
| 3     | 5-6                  | 125%           | 125%            |
| 4     | 7 or more            | 175%           | 170%            |



*Each block is designed around a specific household size to be more representative of the amount contributed to the sewer system.*

# EMWD Sewer Service Rates

↓ Proposed rate blocks result in lower monthly bills for Block 1 households!

| Area Served (Full Service)  | Current Daily Service Charge (DSC) per Equivalent Dwelling Unit (EDU) | Proposed DSC per EDU as of 1/1/2018 | Proposed DSC per EDU as of 1/1/2019 | Block Number | Current Monthly Bill (based on DSC x 365/12) | Proposed Monthly Bill dated 1/1/2018 or after (based on DSC x 365/12) | Proposed Monthly Bill dated 1/1/2019 or after (based on DSC x 365/12) |
|---|---|-------------------------------------|-------------------------------------|--------------|--|---|---|
| Includes areas in and around Hemet, San Jacinto, and Winchester                           | \$0.807   | \$0.85                              | \$0.90                              | 1            | \$18.41                                      | \$15.51 ↓   | \$16.43 ↓   |
|   |   |                                     |                                     | 2            | \$24.55                                      | \$25.85   | \$27.38   |
|   |   |                                     |                                     | 3            | \$30.68                                      | \$32.24   | \$34.37   |
|   |   |                                     |                                     | 4            | \$42.96                                      | \$44.10   | \$46.54   |
| Includes areas in and around Moreno Valley  | \$0.829   | \$0.87                              | \$0.92                              | 1            | \$18.91                                      | \$15.82 ↓   | \$16.73 ↓   |
|   |   |                                     |                                     | 2            | \$25.22                                      | \$26.46   | \$27.98   |
|   |   |                                     |                                     | 3            | \$31.52                                      | \$33.15   | \$34.98   |
|   |   |                                     |                                     | 4            | \$44.13                                      | \$45.02   | \$47.45   |
| Includes areas in and around the City of Menifee (Sun City)                               | \$0.835   | \$0.88                              | \$0.93                              | 1            | \$19.05                                      | \$16.12 ↓   | \$17.03 ↓   |
|   |   |                                     |                                     | 2            | \$25.40                                      | \$26.77   | \$28.29   |
|   |   |                                     |                                     | 3            | \$31.75                                      | \$33.46   | \$35.28   |
|   |   |                                     |                                     | 4            | \$44.45                                      | \$45.63   | \$48.06   |
| Includes areas in and around Temecula, Murrieta, and French Valley                        | \$0.957   | \$1.00                              | \$1.06                              | 1            | \$21.83                                      | \$18.25 ↓   | \$19.47 ↓   |
|   |   |                                     |                                     | 2            | \$29.11                                      | \$30.42   | \$32.24   |
|   |   |                                     |                                     | 3            | \$36.39                                      | \$38.02   | \$40.45   |
|   |   |                                     |                                     | 4            | \$50.94                                      | \$51.71   | \$54.75   |
| Includes areas in and around Perris, Romoland, Homeland, and northern portions of Menifee | \$1.10  | \$1.15                              | \$1.22                              | 1            | \$25.09                                      | \$20.99 ↓   | \$22.20 ↓   |
|   |   |                                     |                                     | 2            | \$33.46                                      | \$34.98   | \$37.11   |
|   |   |                                     |                                     | 3            | \$41.82                                      | \$43.80   | \$46.54   |
|   |   |                                     |                                     | 4            | \$58.55                                      | \$59.62   | \$62.96   |
| Canyon Lake*  | \$1.825   | +                                   | +                                   | n/a          | \$55.51                                      | +   | +   |

+ EMWD bills customers in this area for sewer service rendered through Elsinore Valley Municipal Water District facilities, at the rate established by EVMWD.

| Sewer System Capital Projects Charge<br><i>per Equivalent Dwelling Unit</i> | Current Monthly Charge* | Proposed Monthly Charge* for bills dated on or after 1/1/18 | Proposed Monthly Charge* for bills dated on or after 1/1/19 |
|---|-------------------------|---|---|
|   | \$2.25                  | \$2.50  | \$2.75  |

\*Amount will be prorated based on billing cycle.

# IMPORTANT INFORMATION INSIDE

Notice of Public Hearing for consideration of water and sewer rates and rate structure changes based on a cost of service study.

*Aviso de audiencia pública para la consideración de tarifas de agua y alcantarillado y cambios de estructura de tarifas basados en un estudio de costo de servicio.*

## EMWD's Mission

To deliver value to our customers and the communities we serve by providing safe, reliable, economical and environmentally sustainable water, wastewater and recycled water services.

## SPECIAL REPORT

### September 2017

Visit us at [www.emwd.org](http://www.emwd.org)  
2270 Trumble Road, PO Box 8300,  
Perris, CA 92572-8300  
RES-218



PRSR STD  
US POSTAGE  
PAID  
PERRIS, CA  
PERMIT NO.10

CUSTOMER NAME  
OR CURRENT RESIDENT  
MAILING ADDRESS  
MAILING CITY, STATE ZIP

# EMWD Drought Stages

Congratulations EMWD customers for continuing to use water wisely! EMWD adopted its Water Shortage Contingency Plan (WSCP) to regulate the delivery and consumption of water during water shortages. The higher stages of the Plan are designed to encourage customers to reduce water use by temporarily reducing customer water budgets in varying stages depending on the severity of the shortage. EMWD's Board of Directors has the authority to initiate or terminate water shortage contingency measures described in the Plan, and takes such actions as needed in public meetings.

**Stage 1: Supply Watch** – Up to 10 percent voluntary reduction of water use.

**Stage 2: Supply Alert** – Up to 25 percent voluntary reduction of water use. Currently EMWD asks that customers voluntarily save 10 percent.



**Stage 3: Mandatory Waste Reduction** – Enforced through changes to the water budget-based tiered rates as follows:

**Stage 3a:** No variances or adjustments allowed for filling swimming pools, establishing landscapes, or leaks that are not repaired within 48 hours;

**Stage 3b:** Tier 3 (*Excessive water use*) allocations reduced by 50 percent;

**Stage 3c:** Tier 3 allocations are eliminated.

### Stages 4 and 5: The Water Shortage Contingency Plan

– Reduces customers' water budgets by varying amounts, depending on the severity of the shortage. As described on page 4, under normal conditions, customers who stay within budget are charged at the lowest rates in tiers 1 and 2. In stages 4 and 5, budgets are reduced, which would cause a customer going over budget to be charged at a Tier 4 rate.

