TECHNICAL MEMORANDUM

Water Resources and Facilities Planning Department

DATE:	**December 17, 2020**
PREPARED FOR:	**San Diego County Local Agency Formation Commission**
PREPARED BY:	**Eastern Municipal Water District**
SUBJECT:	**2020 Urban Water Management Plan: Key Updates**

INTRODUCTION

Eastern Municipal Water District (EMWD) is currently in the process of updating its Urban Water Management Plan (UWMP) for the 2020 update requirement. Although the UWMP is not available at this time, EMWD is able to provide some of the key findings with respect to water demands and local supplies that will be included in our 2020 update.

WATER DEMANDS

EMWD's total demands over the past 5 years have been significantly lower than the demands projected in the 2015 UWMP. Table 1 below shows actual demands compared to the 2015 UWMP projections.

Table 1: Actual Demands Compared to 2015 UWMP Projections

Year*	2015 UWMP Demand Projection (Acre-Feet)	Actual Demands (Acre-Feet)	Difference
2016	149,508	143,156	-(4%)
2017	161,606	145,232	-(10%)
2018	173,705	153,641	-(12%)
2019	185,803	143,282	-(23%)
2020	197,901	150,267	-(24%)

1. *Demand projections interpolated between 2015 and 2020*
2. *Includes wholesale demands and imported water recharge required under Soboba Settlement Agreement*
3. *2020 value is a projected end of year value based on preliminary data available through October 2020*

The lower demands can be attributed to slower growth than anticipated and a continued lower per capita water use than what was assumed in the 2015 UWMP. The 2020 UWMP will show future demands increasing due to projected growth and land use changes in the service area, and although it is anticipated that the 2020 UWMP will show slower growth between 2020 and 2025 compared to the 2015 UWMP, the demand projections for the planning horizon 2040-2045 are expected to be comparable to those forecasted in the 2015 UWMP.

The 2015 UWMP projected future demands based on customer behavior prior to the statewide drought emergency. Per capita use estimates ranged from roughly 145 GPCD for 2020 to 137 GPCD in 2040 (inclusive of losses). However, as shown in Figure 1 below, EMWD has continued to see much lower per capita use, averaging 123 GPCD since the end of the emergency drought regulations.

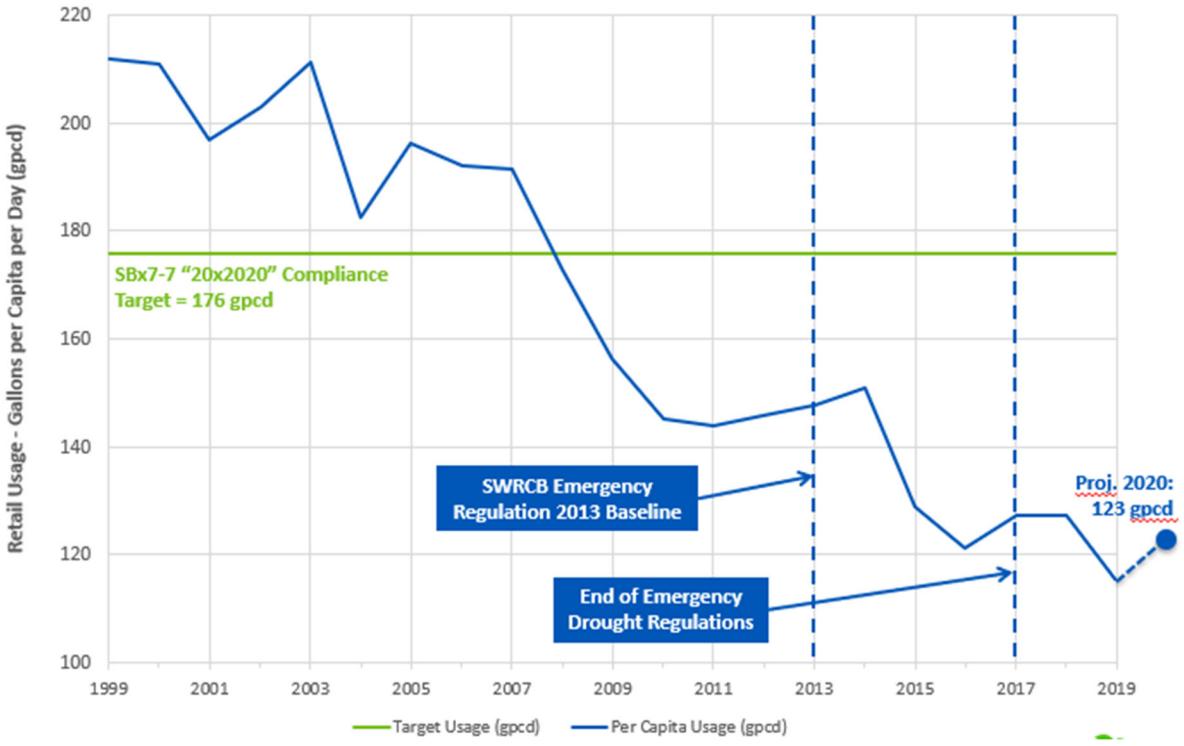

Figure 1: Per Capita Water Use

There is still potential for a "rebound" effect that could be lagging following the end of the emergency drought regulations; however, EMWD's demand management and conservation efforts have been extremely effective and will continue to promote water use efficiency.

EMWD will continue implementation of its allocation-based tiered rate structure that was instituted for residential customers in 2009 to promote the efficient use of water and is designed to provide residential customers a significant incentive to not excessively use water for their indoor and outdoor (landscape) needs. The 2020 UWMP demand projections will also be updated to reflect allocation-based tiered rates for Commercial, Industrial, and Institutional customers that was initiated in January 2019.

EWMD will also continue participation in regional and local conservation programs including:

- Home surveys to assist customers in identifying and implementing opportunities for reduced water use.

- Rebates for landscape improvements to lower outdoor water use including installation of smart controllers and replacement of turf to less water intensive landscape. In January 2020, EMWD began supplementing the regional rebate with an additional $1/square-foot of turf replaced to further incentivize the replacement of non-functional turf within the service area.

- Partnerships with local agencies including Southern California Gas Company for rebates associated with high efficiency clothes washers.

- Residential drip kit program, which was initiated in 2018 to provide customers the opportunity to replace higher water use spray nozzles with more water efficient drip systems. EMWD received grant funding for this initiative and therefore, the drip kits are available at no cost to the customer, providing further incentive for participation in the program.

LOCAL SUPPLIES

EMWD's local supplies include groundwater, desalinated groundwater, and recycled water and these local sources have reliably met EMWD's projections for local supply production.

EMWD's local supply production compared to the 2015 UWMP projections are shown in the table below.

For the past five (5) years, EMWD's local water supply production has been within +/-2 % of its 2015 projections, with the exception of 2019, when EMWD elected to participate in the Metropolitan Water District of Southern California's cyclic storage program, thereby reducing groundwater pumping in this wet year, to maintain these supplies for a future dry year. For 2020, EMWD is expected to exceed the 2015 UWMP local supply projection by 7%.

Table 2: Actual Local Supply Production Compared to 2015 UWMP Projections

Year	2015 UWMP Local Supply Projection[1] (Acre-Feet)	Actual Local Supplies Produced[1] (Acre-Feet)	Difference
2016	67,581	66,450	-(2%)
2017	67,237	66,644	-(1%)
2018	66,892	67,044	+0.2%
2019	66,548	63,892	-(4%)[2]
2020	66,204	71,122[3]	+7%

1. *Includes local supplies provided on a wholesale basis.*
2. *2019 Groundwater production reduced due to EMWD's participation in Metropolitan Water District of Southern California cyclic storage program.*
3. *2020 value is a projected end of year value based on preliminary data available through October 2020.*

EMWD's 2020 UWMP will also be updated to include additional local supply projects that are currently in construction including:

- Perris II Desalter Project that will expand EMWD's existing groundwater desalination program by an additional 5,400 acre-feet per year, consistent with the 2015 UWMP projections of 3,000 – 6,000 AFY.

- Perris North Groundwater Contamination Prevention and Remediation Program, which includes production wells and associated treatment of 6,450 acre-feet per year of groundwater, more than doubling the 2015 UWMP projection of 3,000 AFY.

- Enhanced Recharge and Recovery Program – Phase 1 that will provide up to 7,000 acre-feet per year of wet weather storage and dry year use within the San Jacinto Basin.

- Additional recycled water projects that have been implemented under EMWD's accelerated retrofit program, in which EMWD's incentivizes the conversion from potable (imported or groundwater) water for irrigation to recycled water.

The 2020 UWMP will also acknowledge EMWD's role as the Groundwater Sustainability Agency under the Sustainable Groundwater Management Act for the western portion of the San Jacinto groundwater basin, and EMWD's continued basin management activities. The eastern portion of the San Jacinto basin is adjudicated and is also being managed sustainably.

These 2020 UWMP updates are consistent with, and support EMWD's water supply reliability as described in the *"Analysis of Eastern Municipal Water District's Water Supply and System Reliability with the Potential Annexation of Fallbrook Public Utility District and Rainbow Municipal Water District"* dated February 12, 2020.