Hemet-San Jacinto Watermaster

5 Projected Demands Update

In recent years, development has slowed and only 299 Equivalent Dueling Units (EDUs) were added in 2017. A recent absorption study projects approximately 700 new EDUs will be added annually for the next three years. EMWD has identified over fifty projects with 2,097 proposed homes with recent construction activity. In addition to the projects under construction, there are 17,009 homes proposed in the area along with thousands of acres of non-residential development. Although these projects may take many years longer than previously anticipated to enter the market, they will bring with them a significant amount of new water demand. A summary of the 2017 development is presented below based on information obtained from New Business Development tracking at EMWD:

Month	Completed EDUs
January	19
February	32
March	28
April	22
May	12
June	21
July	25
August	27
September	25
October	47
November	16
December	25
2017 Total	**299**

Such new developments bring water supply challenges, and water purveyors continue to pursue new and efficient ways to accommodate growth. This includes exploring new options and opportunities for storing and using recycled water, requiring new development to be water efficient, and encouraging water efficiency through allocation based tiered rates or other conservation rate structures.

5.1 Planned Development

EMWD maintains a database of proposed development projects within its boundaries. To assist in forecasting demand, projects can be separated into two categories based on status, active construction and planned. Projects are considered in active construction from survey staking through completion. Proposed development includes projects in planning and design, starting with agency review through active construction.

Table 5-1 provides summarized information on projects under development in the Management Area.

Each EDU represents 0.49 acre-feet per year (AFY) of demand. The water demand shown is based on the number of residential units in each project and the acres of non-residential use. These demand projections are for planning purposes only and may change as information becomes available and projects are finalized.

Due to recent economic developments, completing a project in the active construction category could take up to nine years. Timing for completion of a project still in planning could be up to 25 years in the future. Time frames are approximate with multiple factors affecting development including economic patterns and/or environmental constraints.

A map of proposed projects categorized by status in the Management Area is shown in Chapter 10, Figure 10-5.

Table 5-1: Projects Under Development in the Management Area*

Entity/ Category	EMWD		LHMWD		City of Hemet		City of San Jacinto		Totals	
	EDU	AFY	EDU	AFY	EDU	AFY	EDU	AFY	EDU	AFY
Active Construction										
Residential	964	472	118	58	0	0	73	36	1,155	566
Non-Residential	0	0	0	0	0	0	0	0	0	0
Planning										
Residential	16,614	8,141	1,193	584	176	86	1,295	635	19,278	9,446
Non-Residential	288	141	300	147	0	0	0	0	588	288

* Table 5-1 presents 3rd Quarter 2017 data.

5.2 Future Demands

Projections for future demand for the private groundwater pumpers and the Soboba Reservation were initially estimated in conjunction with the Soboba Band of Luiseno Indians and the private pumpers as part of the Operational Yield Study (WRIME, Inc., 2003). At that time, the projection for the private pumpers' extraction was fixed at 32,000 acre feet (AF). In this reports, the projections for the private pumpers are further refined using the data in Table 5-1 to determine projected agricultural demand reduction. Agricultural acreage and its water demand are reduced by the amount of development anticipated. Future demand projections are summarized in Table 5-2.

Table 5-2: Future Demand Projections

Entity / Year	2020 (AF)	2025 (AF)	2030 (AF)	2035 (AF)	2040 (AF)
1. EMWD	13,000	14,400	15,700	17,000	18,200
2. LHMWD	16,475	16,969	17,486	18,035	N/A
3. City of Hemet	4,860	4,960	5,040	5,110	5,150
4. City of San Jacinto	3,113	3,271	3,438	3,614	3,792
5. Private Pumpers	19,500	16,620	15,620	13,520	N/A
6. Soboba Reservation *	2,900	3,215	3,520	3,825	4,010
Totals	59,848	59,435	60,804	61,104	N/A

* These figures are based on the Soboba Water Development Schedule per the Settlement Agreement that went into effect in 2012.

5.3 Urban Water Management Plans

Water Code Section 10620(a) of the Urban Water Management Planning Act requires urban water suppliers to prepare and adopt an Urban Water Management Plan (UWMP) and sets forth parameters for doing so. Each UWMP is to assess current and projected water supplies; evaluate demand and customer type; evaluate reliability of water supplies; describe conservation measures implemented by the water supplier; provide a response plan for times of water shortage; and compare supply and demand projections. UWMPs must be updated every five years and the next update will begin in 2020.

Urban water suppliers with 3,000 or more connections are required to prepare an UWMP. In 2015, EMWD, Lake Hemet Municipal Water District (LHMWD), and the water departments of the cities of Hemet and San Jacinto each prepared an UWMP and demand projections from those plans as shown on Table 5-2. EMWD's demand has been adjusted to account for only the portion of EMWD that is within the Management Area.

The Water Conservation Act of 2009, Senate Bill X7-7 (SB X7-7) set a requirement for water agencies to reduce their per capita water use by the year 2020. The overall goal is to reach a statewide reduction of per capita urban water use of 20 percent by December 31, 2020, with an intermediate goal of 10 percent reduction by December 31, 2015. In the 2010 UWMPs, urban suppliers were required to set targets and supply a plan to reduce per capita water consumption. Demand reduction can be achieved through both conservation and the use of recycled water as a potable demand offset. As reported in the 2015 UWMP, EMWD's total demands totaled 129 gallons per capita per day (gpcd) in 2015, meeting both the interim target (187 gpcd) and its final target (176 gpcd) for 2020. LHMWD's 2015 Interim Urban Water Use Target was 155 gpcd, the actual water use in 2015 was 122 gpcd. The City of Hemet's 2015 Interim Urban Water Use Target was 160 gpcd, the actual water use in 2015 was 105 gpcd. The City of San Jacinto's 2015 Interim Urban Water Use Target was 166 gpcd, the actual water use in 2015 was 113 gpcd. Therefore, each of the agencies met its 2015 interim targets.

Agencies within the Management Area are participating in implementation of the Hemet/San Jacinto Groundwater Management Area Water Management Plan (Management Plan) and importing water from the Metropolitan Water District of Southern California (MWD) to recharge the basin. As a result of the successful efforts to improve water efficiency, to recharge the basin as part of the Management Plan imposed by the Judgment, and to increase the use of recycled water, water supplies are expected to be adequate for meeting demands for over 20 years into the future.

5.3.a Eastern Municipal Water District

EMWD's UWMP describes water supplied from four sources of supply: imported water purchased from MWD, local potable groundwater, local desalted groundwater, and recycled water. It is anticipated that the majority of the water demands within EMWD's jurisdiction as a result of future development will be met through additional water imports from MWD supplemented by local supplies. Local supplies include an increase in desalination of brackish groundwater, recycled water use, and water use efficiency.

In the MWD's 2015 Urban Water Management Plan (2015 UWMP-MWD), MWD analyzed the reliability of water delivery through the State Water Project (SPW) and the Colorado River Aqueduct (CRA) and concluded that with the storage and transfer programs developed by MWD, MWD will have a reliable source of water to serve its member agencies' needs through 2040 during normal, historic single-dry and historic multiple-dry years. Unprecedented shortage will be addressed through the principles of the Water Surplus and Drought Management Plan as described in the 2015 UWMP-MWD.

In an effort to limit dependency on imported water from MWD, EMWD has developed several programs designed to take advantage of local resources. High-quality groundwater is a source of water for local customers in the Management Area. EMWD has also constructed two desalination facilities to recover poor quality groundwater with high total dissolved solids (TDS) levels in the area outside of the Management Area. The product water from the desalters enters EMWD's potable distribution system. A third desalter is now in the final stages of design. Part of managing groundwater responsibly requires the replacement of groundwater extracted beyond the safe yield. Groundwater extraction in the Management Area above EMWD's allocated amounts will be replaced with imported water as part of the Judgment implementation.

Recycled water is extensively used in EMWD's service area in place of potable water. To offset municipal demand, recycled water is consumed to irrigate landscaping and industrial uses. The majority of EMWD's agricultural customers also use recycled water. In some cases, recycled water is used by agricultural customers in-lieu of groundwater production, increasing the amount of groundwater available for municipal use without increased recharge. Currently, the use of recycled water is limited by the amount available to serve during peak demands with large storage occurring during off peak periods. EMWD has developed plans to eliminate discharge, to use all of the recycled water available within the District, to offset demand of existing potable customers, to include retrofit of potable water landscape customers, and indirect potable recharge.

In the 2010 UWMP, EMWD identified three methods for conserving water: a budget based tiered rate, requirements for water efficiency in new construction, and an active conservation

program. Water use reduction will be focused on outdoor demand reduction by all customers. Through these methods of reducing water use and increasing recycled water use, EMWD has reduced potable demand to meet the requirements of SB X7-7.

Continued efficient water use, responsible groundwater management, and increased recycled water use will reduce EMWD's demand for imported water and increase water supply reliability. EMWD's UWMP is available on EMWD's website at www.emwd.org and the 2015 UWMP-MWD is available on MWD's website at www.mwdh2o.com.

5.3.b Lake Hemet Municipal Water District

Lake Hemet Municipal Water District's UWMP projects the population served will grow from 50,631 in year 2015 to 68,452 in year 2035. LHMWD currently serves its customers from three main sources of supply: locally pumped groundwater; surface water and released water from Lake Hemet diverted from the San Jacinto River system; and water purchases from EMWD. Locally produced groundwater will be limited by the provisions of the Management Plan and supplemented by recharge of imported water. Surface water is released from Lake Hemet and then diverted for direct beneficial use. Based on the LHMWD's UWMP, projected water purchases from EMWD are limited to 1,300 AFY and used for both domestic and agricultural purposes. Recycled water is also proposed as a water supply. Recycled water would be purchased from EMWD and used for citrus agriculture. Facilities must be developed and peak supply needs must become available for use of recycled water to occur. LHMWD has already met the year 2020 per capita per day demand target. According to the LHMWD UWMP, projected supply will meet demand through the year 2035.

5.3.c City of San Jacinto

The City of San Jacinto's UWMP projects that all future demands will be met through groundwater. The city will see an increase in population in its water service area from 17,961 in year 2015 up to 23,000 in year 2040. At the same time, demand will increase from 2,268 AFY in year 2015 up to 3,792 AFY in year 2040, and groundwater will be a reliable source of supply. The City of San Jacinto has already met the year 2020 per capita per day demand target. According to the UWMP, projected supply will meet demand through the year 2040.

The city's water department does not provide water to the entire city area. During 2017, the city produced 2,735 AF of groundwater, and EMWD supplied 3,869 AF of water to customers (domestic and agricultural) within the San Jacinto city limits.

5.3.d City of Hemet

The City of Hemet UWMP also projects that all demand will be met using groundwater. The city will see an increase in population in its water service area from 31,873 in year 2015 up to 34,600 in year 2040. The demand for water in the City of Hemet water service area will increase from 3,750 AFY in 2015 up to 5,150 AFY in 2040, and groundwater will be a reliable source of supply. According to the UWMP, projected supply will meet demand through the year 2040.

The city's water service area does not cover the entire city area. During 2017, the city produced 3,790 AF of groundwater, and EMWD supplied 6,417 AF of water to customers (domestic and agricultural) within the Hemet city limits.