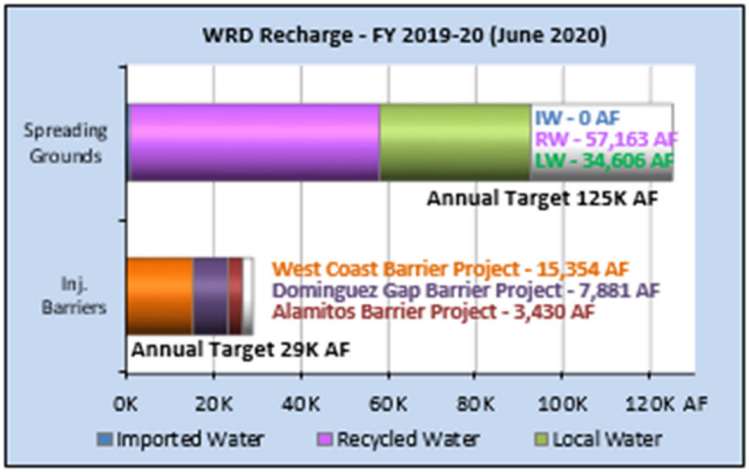
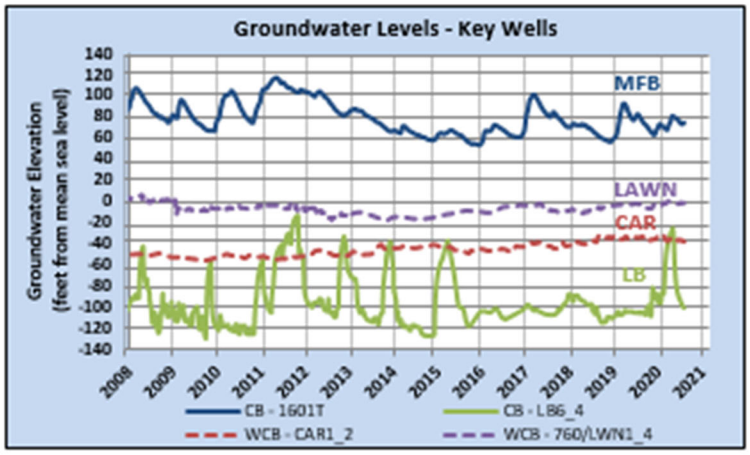
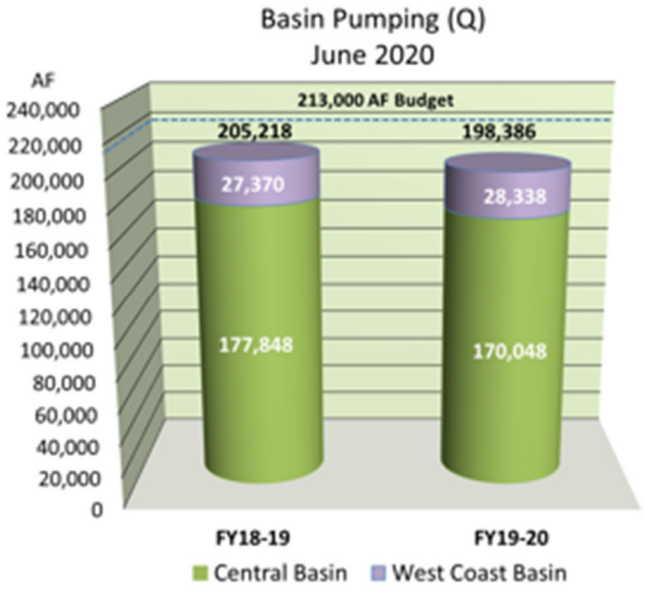
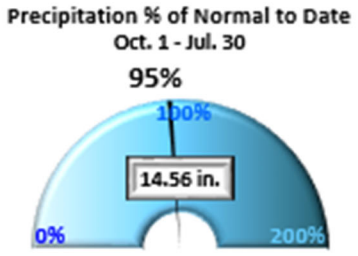
GROUNDWATER BASIN UPDATE
FOR AUGUST 2020

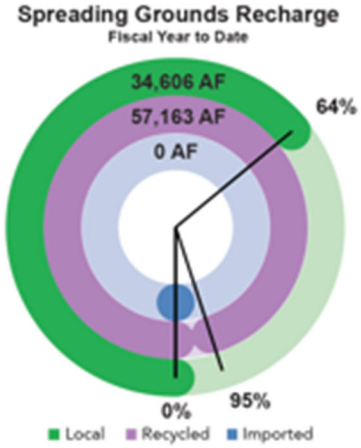
GROUNDWATER BASINS *AT A GLANCE**

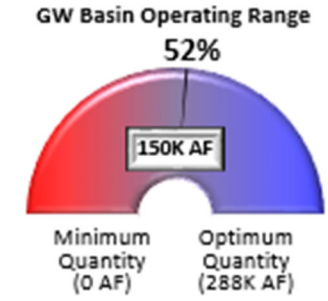


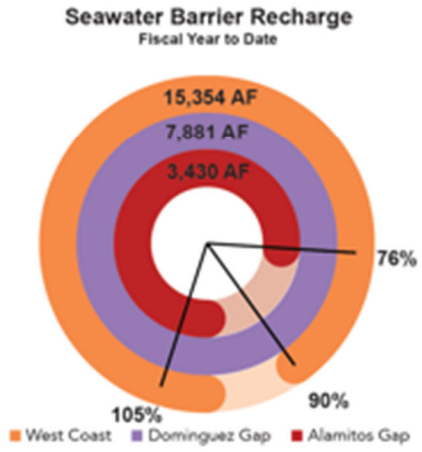












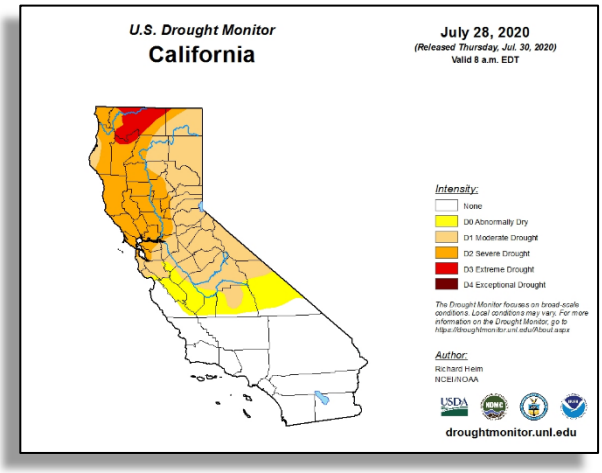
* - Preliminary numbers, subject to change.

SUMMARY

Staff monitors groundwater conditions in its service area throughout the year. A summary of the latest information is presented below.

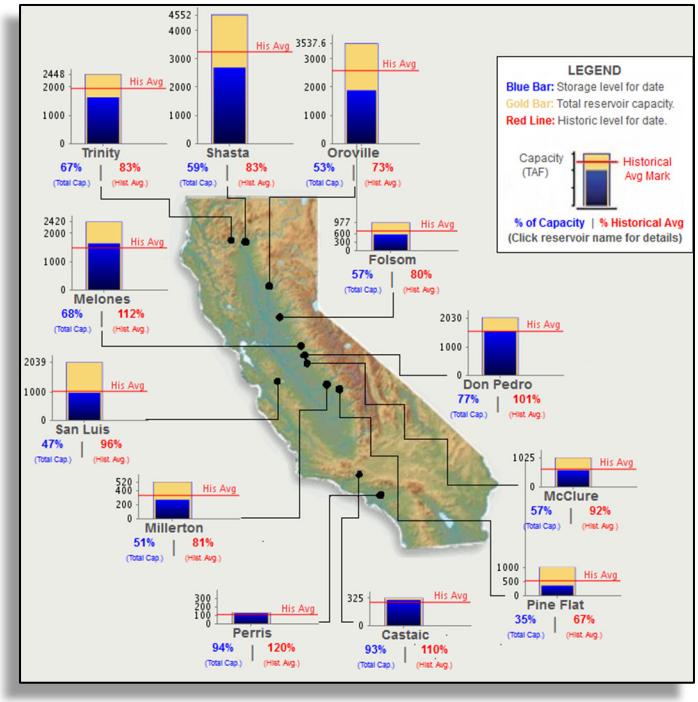
Precipitation (October. 1, 2019 – July 30, 2020)

The WRD precipitation index reports that for the 2019-20 Water Year, there has been 14.56 inches of rainfall. The normal rainfall for this time period is 15.40 inches, so the District is 95% of normal. As of July 28, 2020, the U.S. Drought Monitor is reporting 60% of the State is abnormally dry, 50% under moderate drought, 22% under severe, and 3% under extreme drought conditions.



Reservoirs (as of July 30, 2020)

For all 16 reservoirs reported monthly to the committee, water levels have increased in 2 reservoirs compared to levels recorded in the previous month and decreased in 14 reservoirs. The largest increase (<0.00 million acre feet) occurred at Lake Perris and Lake Silverwood. The largest decrease (-0.47 million acre feet) occurred at Lake Shasta. The smallest decrease (<-0.00 million acre feet) occurred at Castaic Lake.



MWD Reservoirs (SWP)
Storage in Million Acre Feet

Reservoir	Capacity	Storage	% Full	Change
Trinity Lake	2.45	1.63	67%	-0.12
Lake Shasta	4.55	2.69	59%	-0.47
Lake Oroville	3.54	1.88	53%	-0.31
Folsom Lake	0.98	0.56	57%	-0.17
New Melones	2.40	1.64	68%	-0.08
Don Pedro	2.03	1.56	77%	-0.13
Lake McClure	1.02	0.58	57%	-0.15
San Luis	2.04	0.97	47%	-0.11
Millerton Lake	0.52	0.27	51%	-0.14
Pine Flat	1.00	0.35	35%	-0.30
Castaic Lake	0.33	0.30	93%	0.00
Lake Perris	0.13	0.12	94%	0.00
Silverwood	0.08	0.07	88%	0.00

MWD Reservoirs (CRA)
Storage in Million Acre Feet

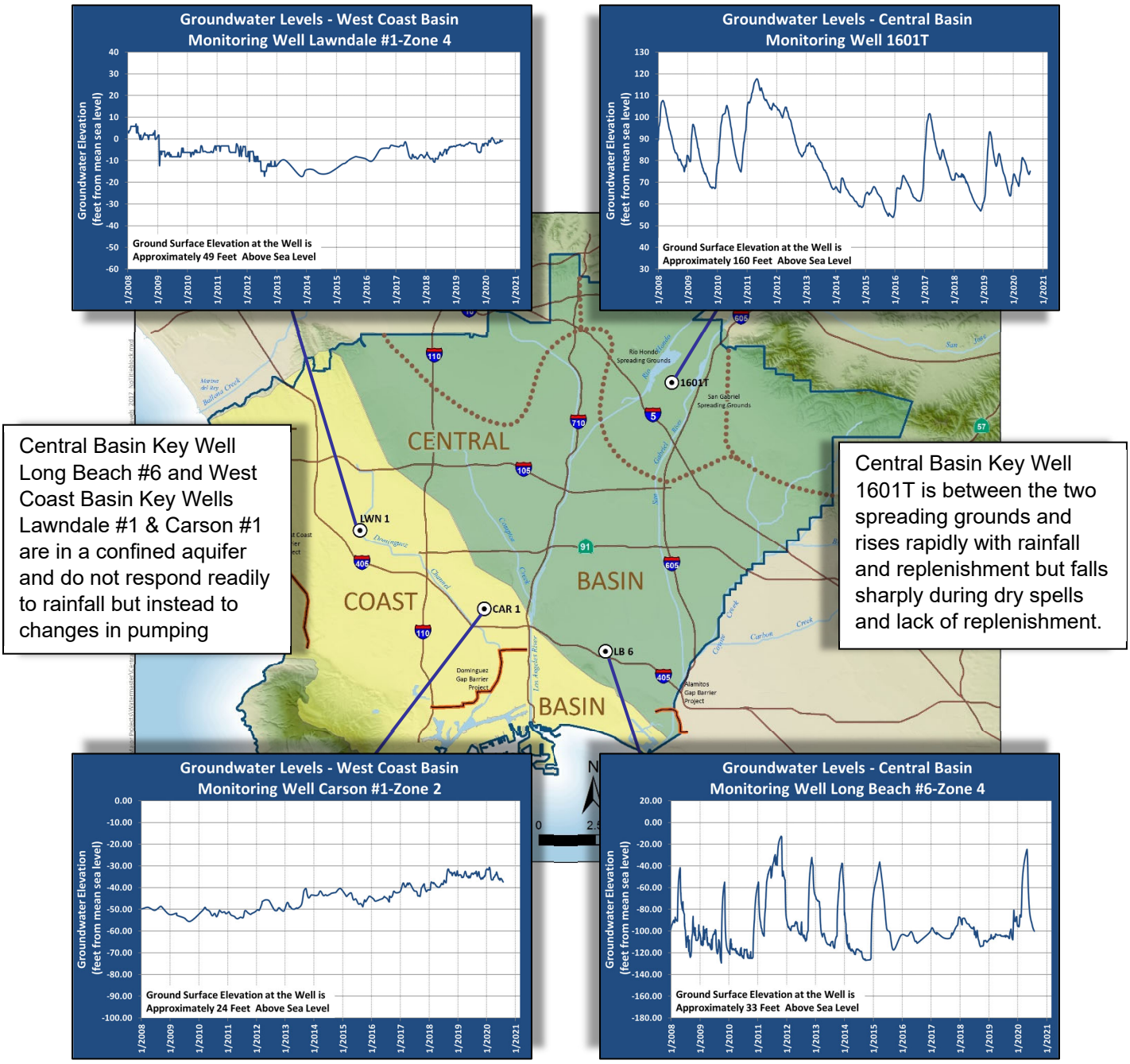
Reservoir	Capacity	Storage	% Full	Change
Powell	24.32	12.37	51%	-0.43
Mead	26.12	10.40	40%	-0.22
DVL	0.81	0.72	88%	-0.01

Black Text - Decrease or no change in storage since the last report.
Green Text - Increase in storage since the last report.

These 16 reservoirs are at 50% capacity (36.12 million acre feet) which is down 2.63 million acre feet from the prior month (-1.97 million acre feet State Water Project [SWP] and -0.66 million acre feet Colorado River Aqueduct [CRA]).

Groundwater Levels (through July 31, 2020)

Groundwater levels in key monitoring wells are shown in the hydrographs below.



Groundwater Level Changes in Key Wells

Well Name	Since Last Report	Since Same Time the Previous Year
Central Basin Key Well 1601T	Decreased 0.3 foot	Decreased 5.1 feet
Central Basin Key Well Long Beach #6_4	Decreased 8.11 feet	Increased 5.5 feet
West Coast Basin Key Well Lawndale #1_4	**Increased 0.65 feet**	**Increased 1.22 feet**
West Coast Basin Key Well Carson #1_2	Decreased 1.29 foot	Decreased 4.23 feet

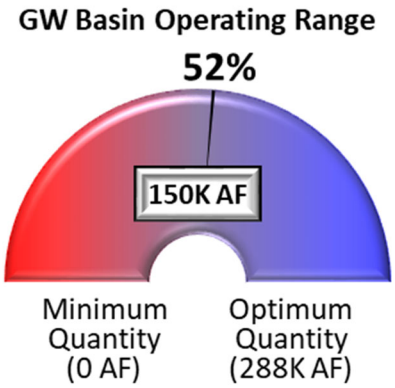
Bold indicates a change in direction (decreasing or increasing) since the last report.

Optimum and Minimum Groundwater Quantity

In response to a 2002 State audit of the District's activities, the Board of Directors adopted an Optimum and Minimum Quantity for groundwater in the District to define an appropriate operating range that would sustain adjudicated pumping rights, leave room for future storage projects, and identify a lower limit. The amounts are based on the accumulated overdraft concept, which the District tracks year by year based on changes in groundwater storage.

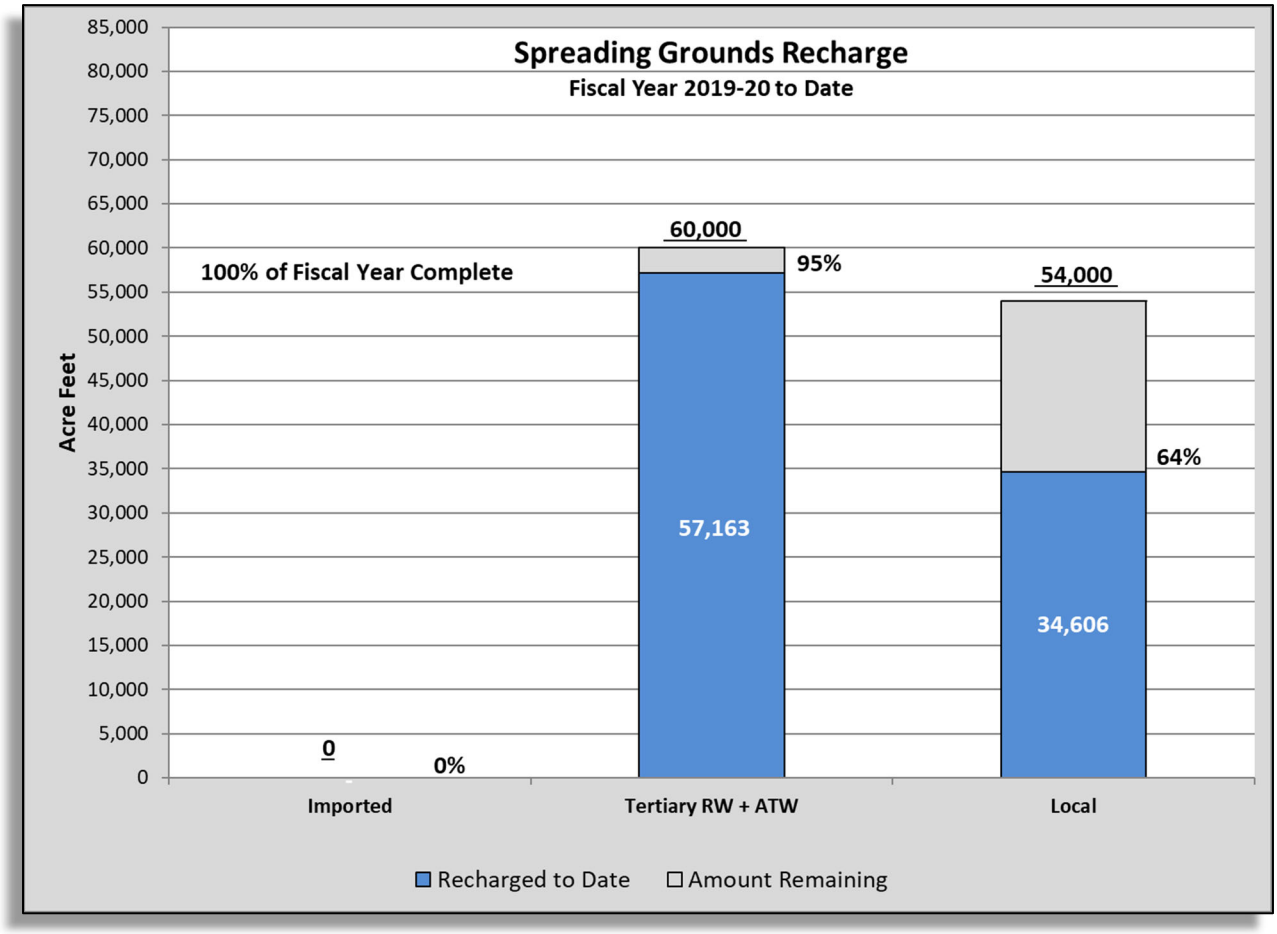
After an extensive review of over 70 years of water level fluctuations and discussions with the Board and pumping community, Water Year 1999/2000 was recognized as a representative year for the Optimum Quantity, which equated to an accumulated overdraft of approximately 612,000 acre feet. The Minimum Quantity was defined as an accumulated overdraft of 900,000 acre feet, which allowed an operating range from 0 acre feet (minimum) to 288,000 acre feet (optimum). The Board also adopted a policy to make-up the groundwater deficit should the accumulated overdraft fall too far below the Optimum Quantity.

The Accumulated Overdraft as of July 31, 2020, has been estimated at 749,796 acre feet (subject to change), which is 150,204 acre feet above the Minimum Groundwater Quantity and 137,796 acre feet below the Optimum Quantity. The Basin is at 52% of Optimum Quantity which is down 1% from last month.



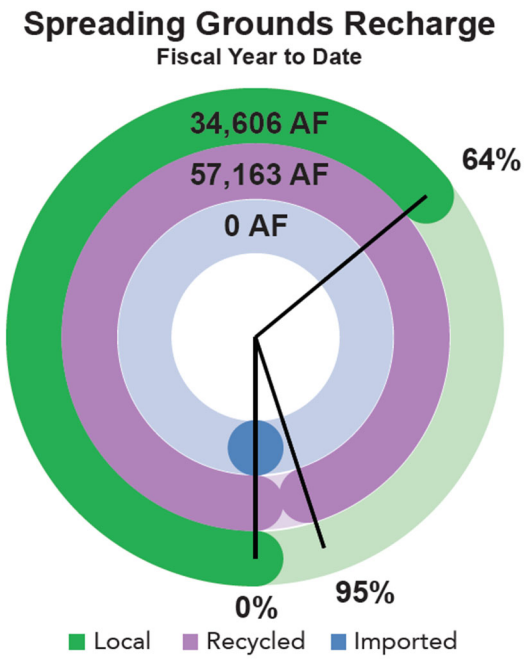
Montebello Forebay Spreading Grounds (July 2019 - June 2020)

The following Chart shows the preliminary spreading grounds replenishment water:

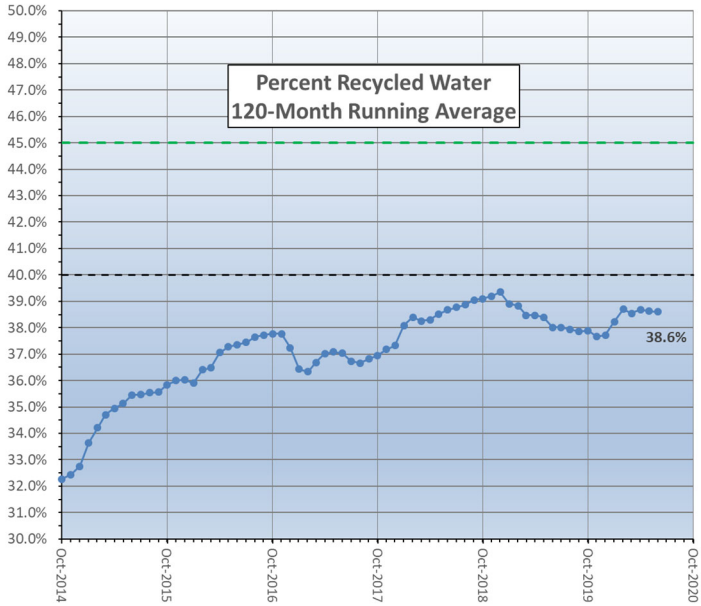


No imported water was purchased during the Fiscal Year 2019-20.

Local water (stormwater plus dry weather urban runoff) is captured by the Los Angeles County Department of Public Works (LACDPW) at the spreading grounds for recharge. Local water amounts are determined as the sum of the total waters conserved at the spreading grounds less the imported and recycled water deliveries. For the 2019-20 Fiscal Year, approximately 34,606 acre feet of local water capture has been reported by the LACDPW.



Preliminary numbers for the 2019-20 Fiscal Year show that approximately 57,163 acre feet of recycled water has been recharged with 8,951 AF consisting of advanced treat water from the ARC AWTF. Presuming the advanced treated water as "Null Water", the 120-month running average of the recycled water contribution in the Montebello Forebay is 38.6% and the regulatory maximum is 45%, with additional studies and monitoring being required once 40% is reached.



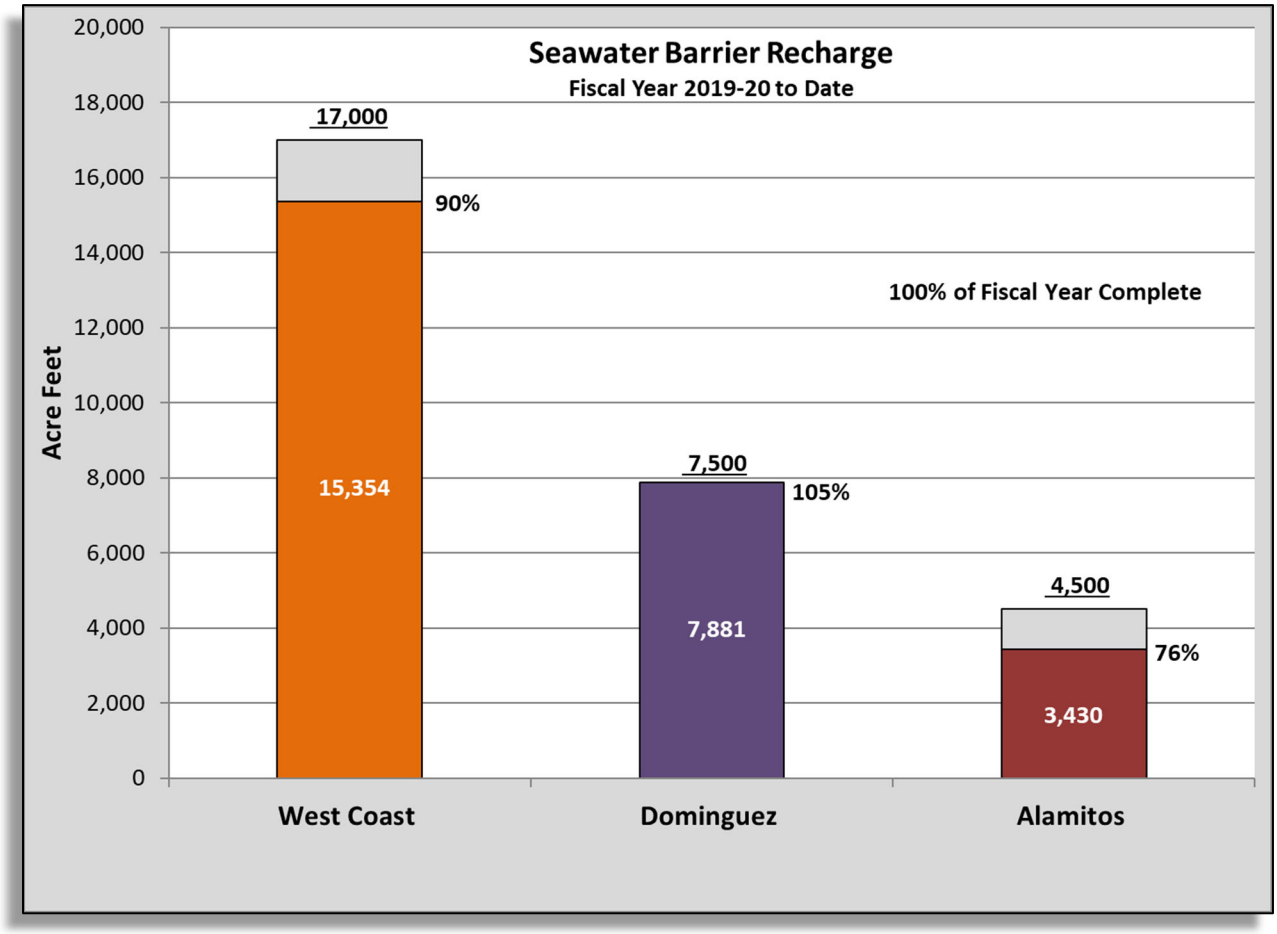
Tertiary Recycle Water Permit Update

Following extensive collaboration between the District and LACSD, the Workplan required by the SWRCB - Division of Drinking Water and LARWQCB regarding the use of tertiary treated recycled water at the Montebello Forebay Spreading Grounds was submitted on November 18, 2019.

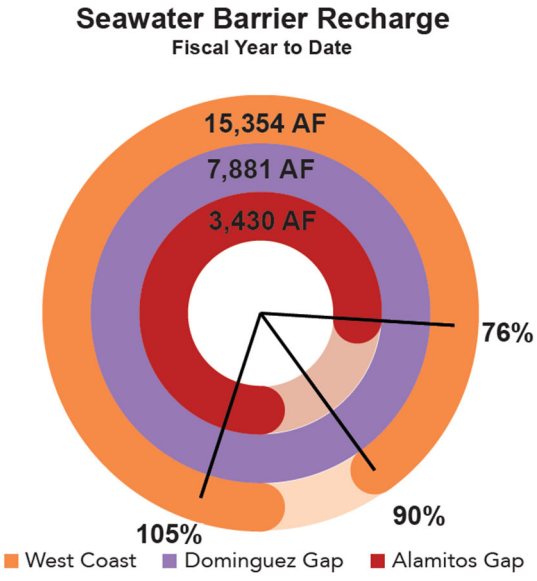
Upon receipt of comments on the Workplan from the State of California, the District and LACSD will proceed with finalizing the preparation and submittal of the new Title 22 Engineering Report. In anticipation of receiving comments, staff continues to work collaboratively with the LACSD on developing the known components of the new Title 22 Engineering Report. A preliminary scoping meeting and a follow-up strategy meeting were held on November 26, 2019, and January 27, 2020, respectively.

Seawater Barrier Well Injection and Replenishment (July 2019 - June 2020)

The following Chart shows the barrier water injection:

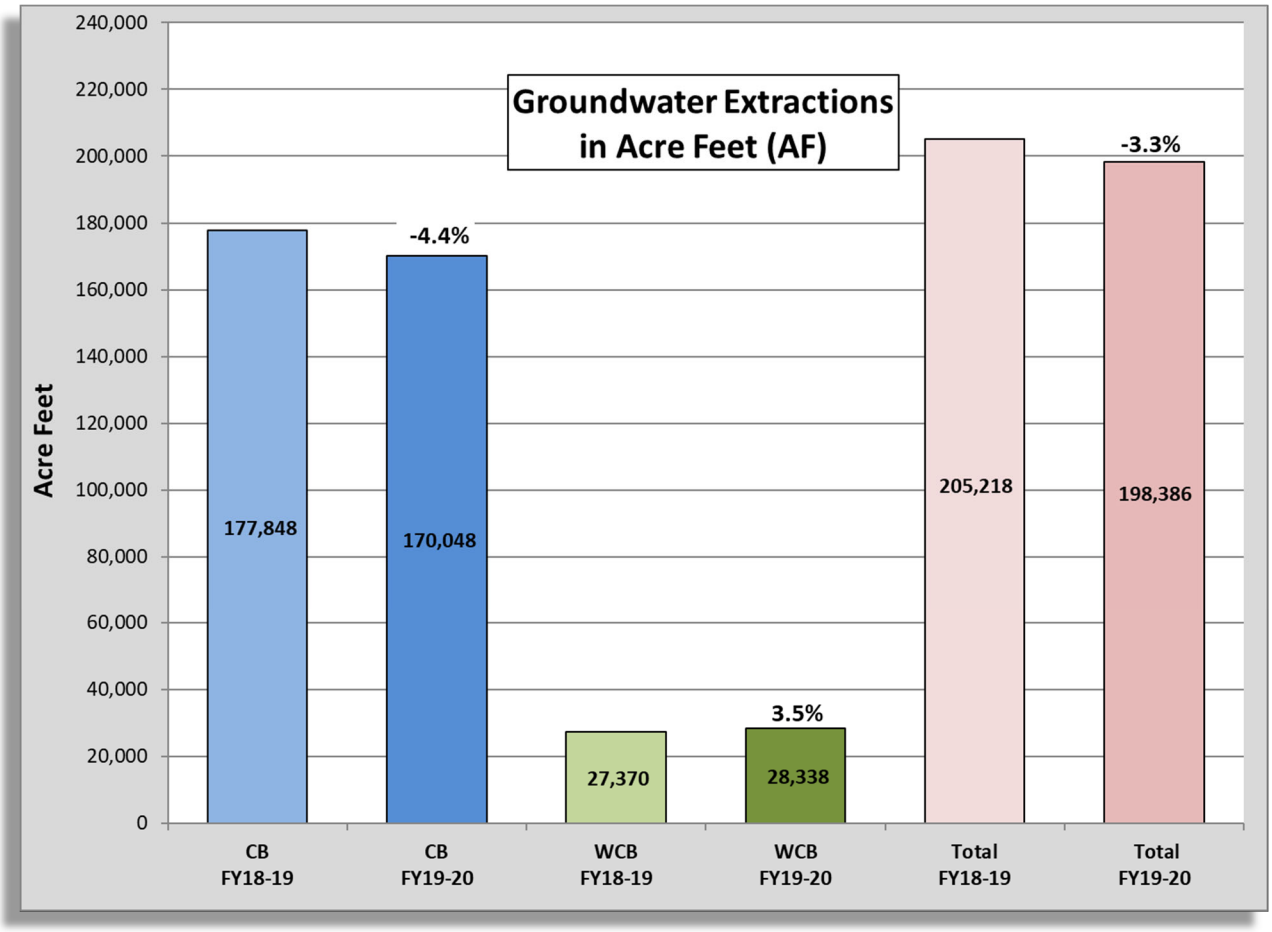


Preliminary numbers for the 2019-20 Fiscal Year show that the West Coast Barrier has used 15,354 acre feet of the total 17,000 acre feet planned for injection, 90% of total for the Fiscal Year. The Dominguez Gap Barrier used 7,881 acre feet of the total 7,500 acre feet planned for injection, 105% of the total for the Fiscal Year. The Alamitos Barrier, on the WRD side, used 3,430 acre feet of the total 4,500 acre feet planned for injection, 76% of the total for the Fiscal Year. The reduced injection at the Alamitos Barrier in Fiscal Year 2019-20 is due to a City of Long Beach in-lieu program.

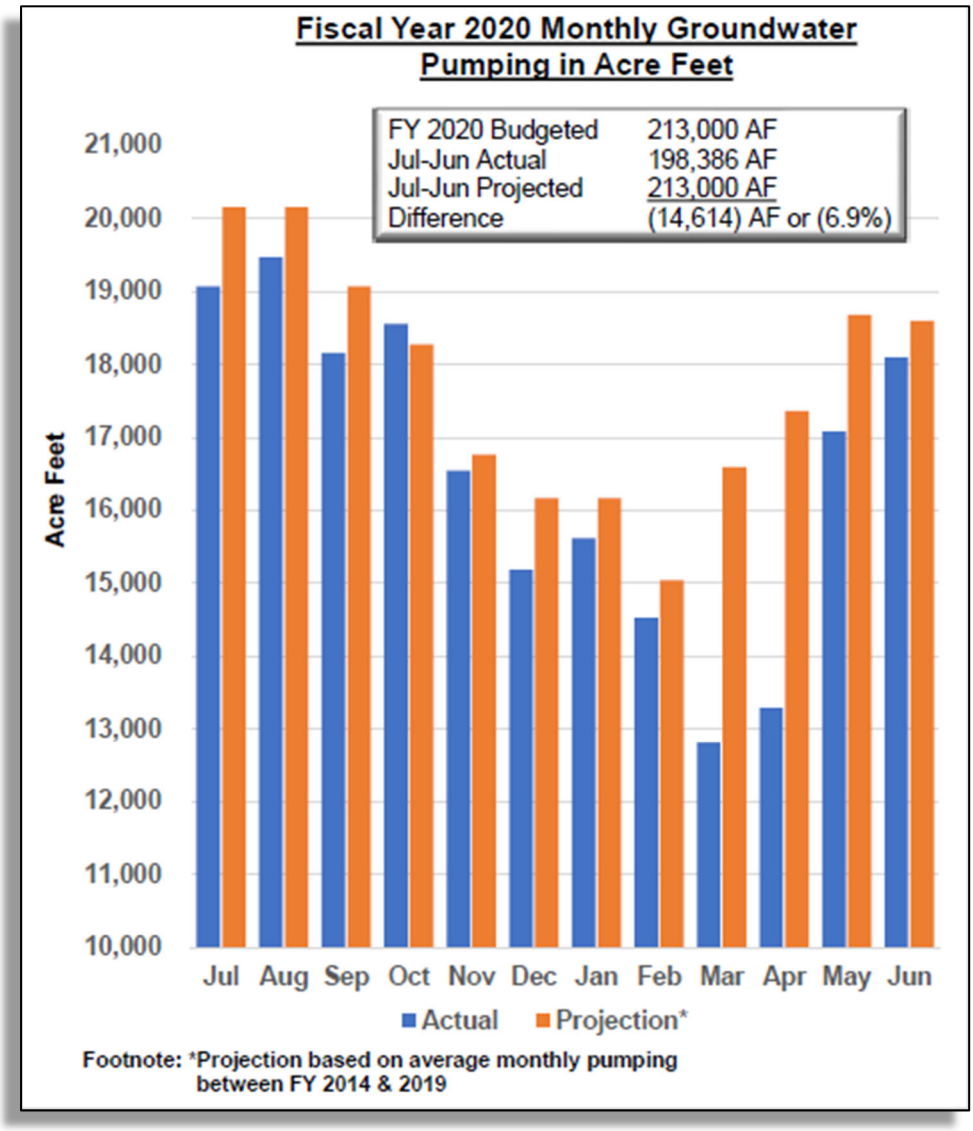


Assessible Pumping (Fiscal Year July 2019 – June 2020)

Preliminary numbers for groundwater production in the District for the Fiscal Year 2019-20 (July 2019 – June 2020) indicate pumping in the Central Basin was down 7,800 acre feet from the same time of the previous fiscal year (-4.4%) and the West Coast Basin pumping was 968 acre feet higher than the previous fiscal year (+3.5%). The total pumping is 198,386 acre feet compared to 205,218 acre feet during the same time the previous year for a decrease of 6,832 acre feet, or -3.3%. The current pumping data do not include seven Central Basin pumpers and one West Coast Basin pumper who have not yet reported for an estimated 250 additional acre feet.



Preliminary numbers indicate 198,386 acre feet have been pumped this fiscal year and is 6.9% below the projected goal of 213,000 acre feet (or -14,614 acre feet). Monthly actual production versus 6-year average monthly production projections (FY 2014 through 2019) are included in the chart below.



For the Fiscal Year 2019-20 (July 2019 – June 2020), staff has tracked the production trends of the top five (5) producing pumpers and the bottom five (5) producing pumpers in each basin. These pumpers are identified in the following tables and are based on the change in volume (in acre feet) compared to the same time period for the previous Fiscal Year.

Production Trends - Central Basin				
Top 5 Producing by Volume (AF)	July 2018 - June 2019	July 2019 - June2020	Difference	% Change
Whittier, City of	4,733.28	5,616.75	883.47	18.67%
Cerritos, City of	7,840.18	8,629.05	788.87	10.06%
California Water Service Company (East LA)	8,814.44	9,463.64	649.20	7.37%
Paramount, City of	4,950.48	5,364.60	414.12	8.37%
Norwalk, City of	395.66	706.93	311.27	78.67%
Bottom 5 Producing by Volume (AF)	July 2018 - June 2019	July 2019 - June 2020	Difference	% Change
Long Beach, City of	27,796.05	24,207.00	-3,589.05	-12.91%
Lakewood, City of Water Department	8,903.11	6,724.58	-2,178.53	-24.47%
Golden State Water Company	21,016.32	20,022.94	-993.38	-4.73%
San Gabriel Valley Water Company	1,631.32	701.05	-930.27	-57.03%
Liberty Utilities Corporation	8,157.69	7,542.63	-615.06	-7.54%

Production Trends – West Coast Basin				
Top 5 Producing by Volume (AF)	July 2018 - June 2019	July 2019 - June 2020	Difference	% Change
Inglewood, City of	1,292.40	3,383.33	2,090.93	161.79%
Tesoro Refining & Marketing Co., LLC	3,896.16	5,169.63	1,273.47	32.69%
Phillips 66 Company	4,656.05	5,093.13	437.08	9.39%
Rolling Hills Country Club	156.00	346.00	190.00	121.79%
Roman Catholic Archbishop of Los Angeles	258.99	291.57	32.58	12.58%
Bottom 5 Producing by Volume (AF)	July 2018 - June 2019	July 2019 - June 2020	Difference	% Change
Golden State Water Company	4,525.56	3,527.26	-998.30	-22.06%
California Water Service Company (Dominguez)	4,068.78	3,496.52	-572.26	-14.06%
Lomita, City of	468.82	2.00	-466.82	-99.57%
Torrance Refining & Marketing Company	1,125.15	661.03	-464.12	-41.25%
California Water Service Co./Hawthorne Lease	872.51	636.91	-235.60	-27.00%