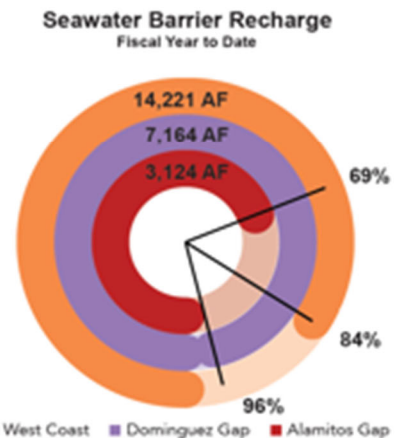
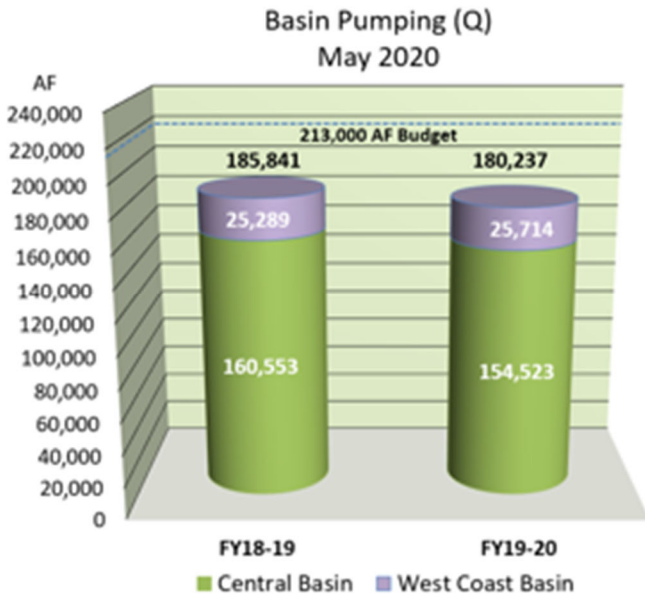
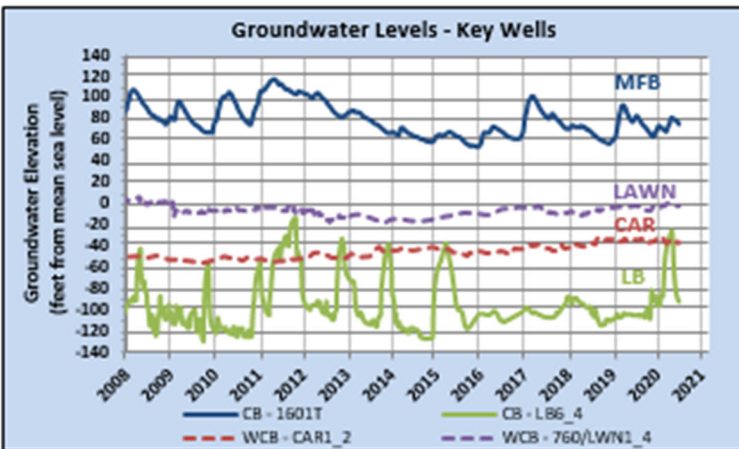
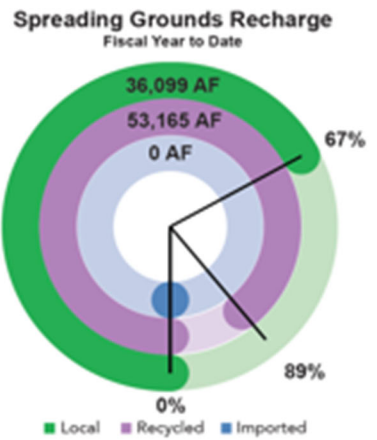
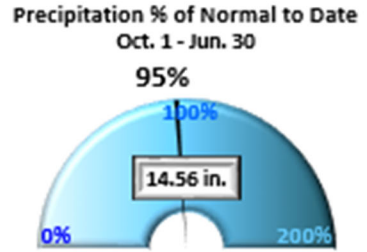
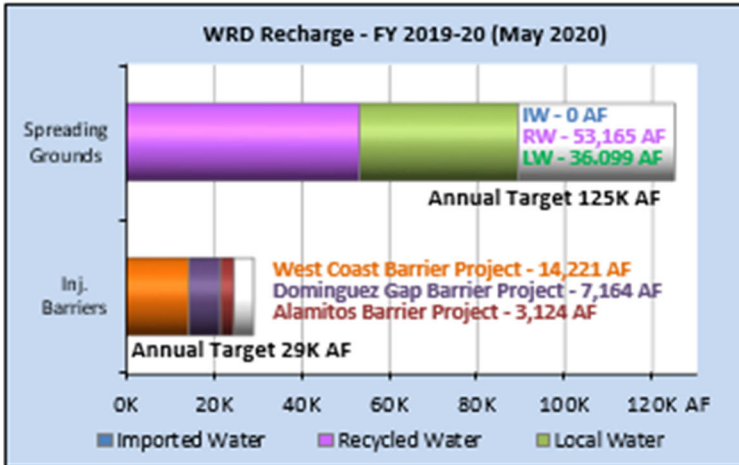


GROUNDWATER BASIN UPDATE FOR JULY 2020

GROUNDWATER BASINS AT A GLANCE*



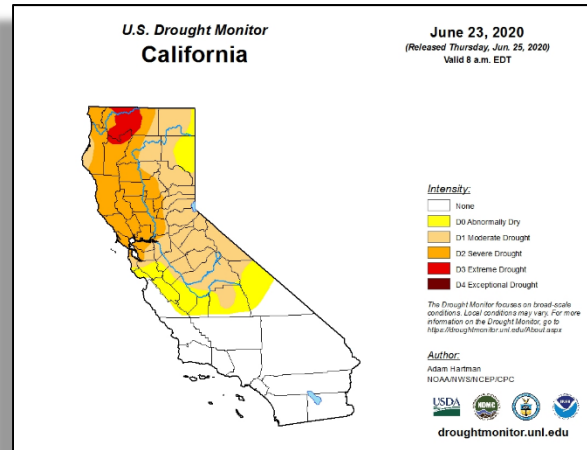
* - Preliminary numbers, subject to change.

SUMMARY

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

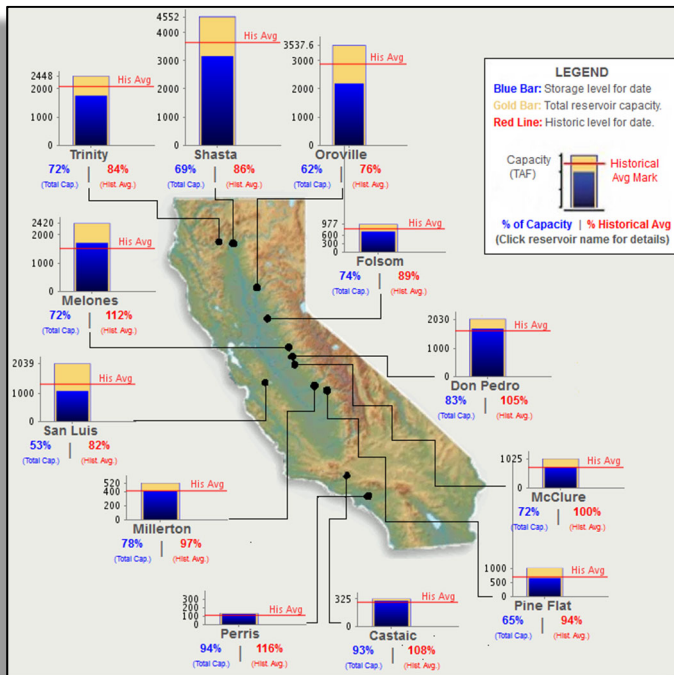
Precipitation (Oct. 1, 2019 – Jun. 30, 2020)

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 15.37 inches, so the District is 95% of normal. As of June 23, 2020, the U.S. Drought Monitor is reporting 58% of the State is abnormally dry, 47% under moderate drought, 21% under severe, and 2% under extreme drought conditions.



Reservoirs (as of June 29, 2020)

For all 16 reservoirs reported monthly to the committee, water levels have increased in 3 reservoirs compared to levels recorded in the previous month and decreased in 13 reservoirs. The largest increase (0.58 million acre feet) occurred at Lake Powell. The smallest increase (<0.00 million acre feet) occurred at Lake Castaic and Lake Perris. The largest decrease (-0.37 million acre feet) occurred at Lake Shasta. The smallest decrease (<0.00 million acre feet) occurred at Lake Silverwood.



MWD Reservoirs (SWP) Storage in Million Acre Feet

Reservoir	Capacity	Storage	% Full	Change
Trinity Lake	2.45	1.76	72%	-0.11
Lake Shasta	4.55	3.16	69%	-0.37
Lake Oroville	3.54	2.19	62%	-0.24
Folsom Lake	0.98	0.72	74%	-0.07
New Melones	2.40	1.72	72%	-0.12
Don Pedro	2.03	1.69	83%	-0.08
Lake McClure	1.02	0.73	72%	-0.06
San Luis	2.04	1.07	53%	-0.23
Millerton Lake	0.52	0.40	78%	-0.05
Pine Flat	1.00	0.65	65%	-0.17
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

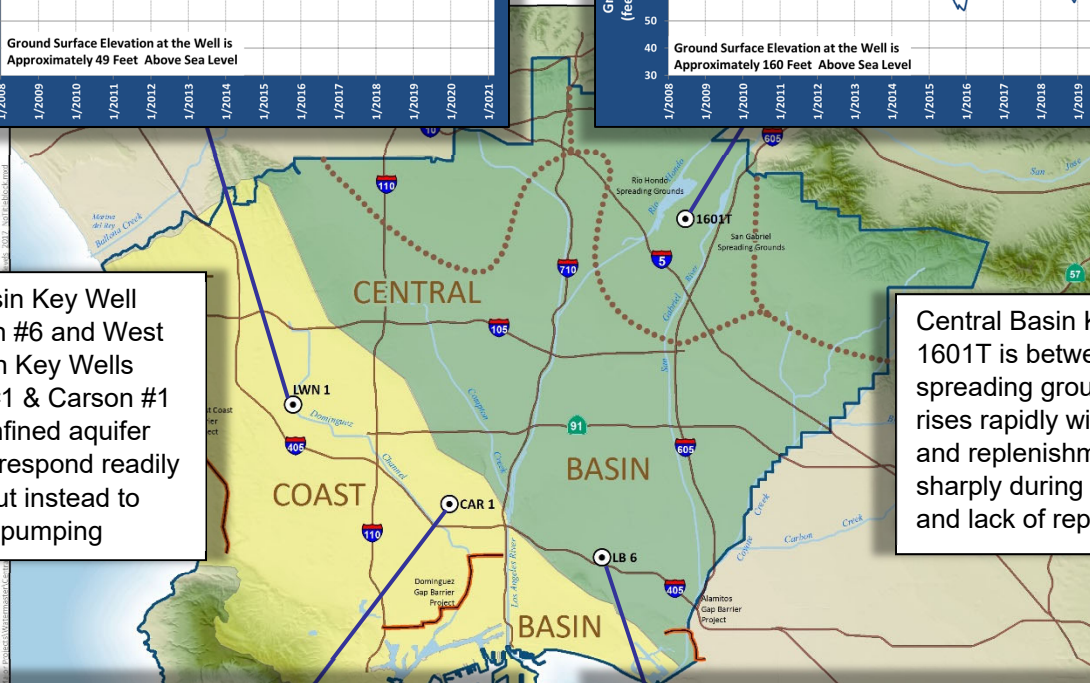
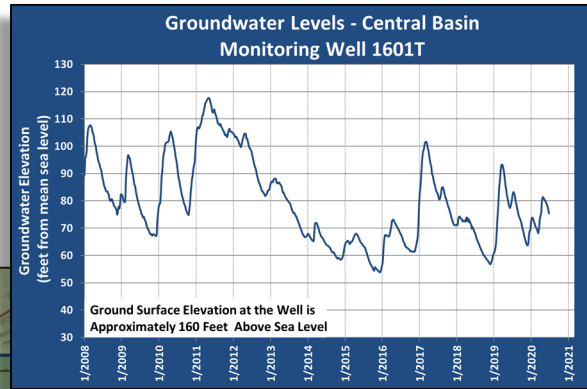
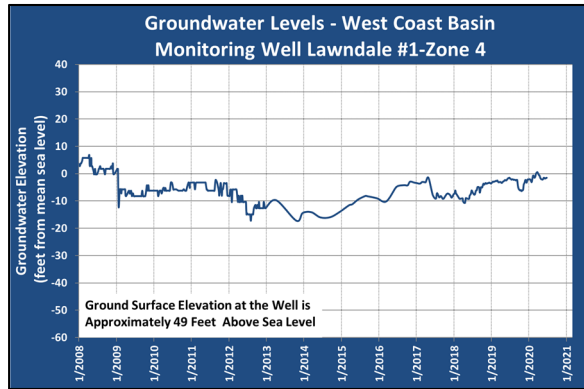
Reservoir	Capacity	Storage	% Full	Change
Powell	24.32	12.81	53%	0.58
Mead	26.12	10.62	41%	-0.35
DVL	0.81	0.72	89%	-0.01

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 54% capacity (38.75 million acre feet) which is down 1.26 million acre feet from the prior month (-1.47 million acre feet State Water Project [SWP] and +0.21 million acre feet Colorado River Aqueduct [CRA]).

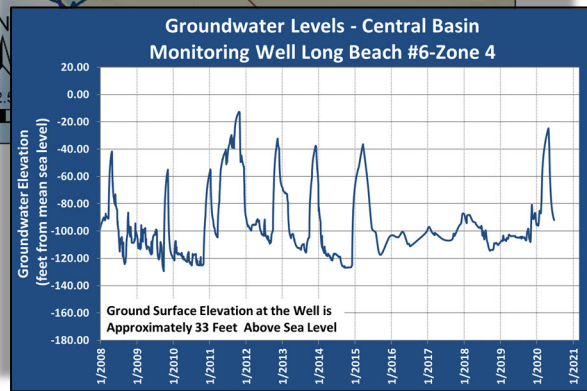
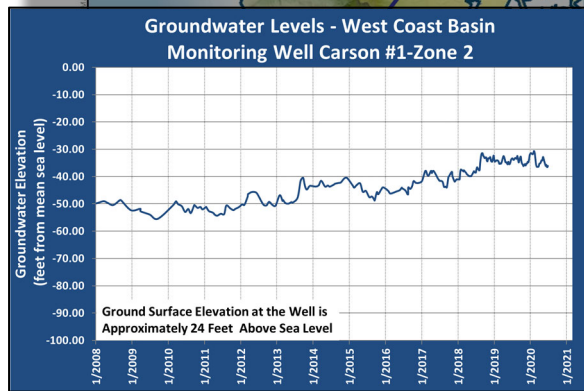
Groundwater Levels (through June 26, 2020)

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



Central Basin Key Well Long Beach #6 and West Coast Basin Key Wells Lawndale #1 & Carson #1 are in a confined aquifer and do not respond readily to rainfall but instead to changes in pumping

Central Basin Key Well 1601T is between the two spreading grounds and rises rapidly with rainfall and replenishment but falls sharply during dry spells and lack of replenishment.



Groundwater Level Changes in Key Wells

Well Name	Since Last Report	Since Same Time the Previous Year	
Central Basin Key Well 1601T	Decreased 3.9 feet	Decreased 5.1 feet	
Central Basin Key Well Long Beach #6_4	Decreased 12.5 feet	Increased 12.7 feet	
West Coast Basin Key Well Lawndale #1_4	Decreased 0.03 feet	Decreased 0.04 feet	
West Coast Basin Key Well Carson #1_2	Decreased 3.27 foot	Decreased 2.65 feet	

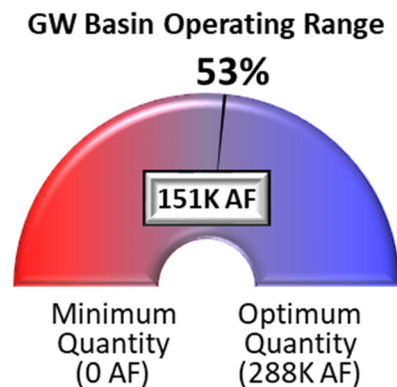
Bold indicates a change in direction (decreasing or increasing) since the last report.

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.

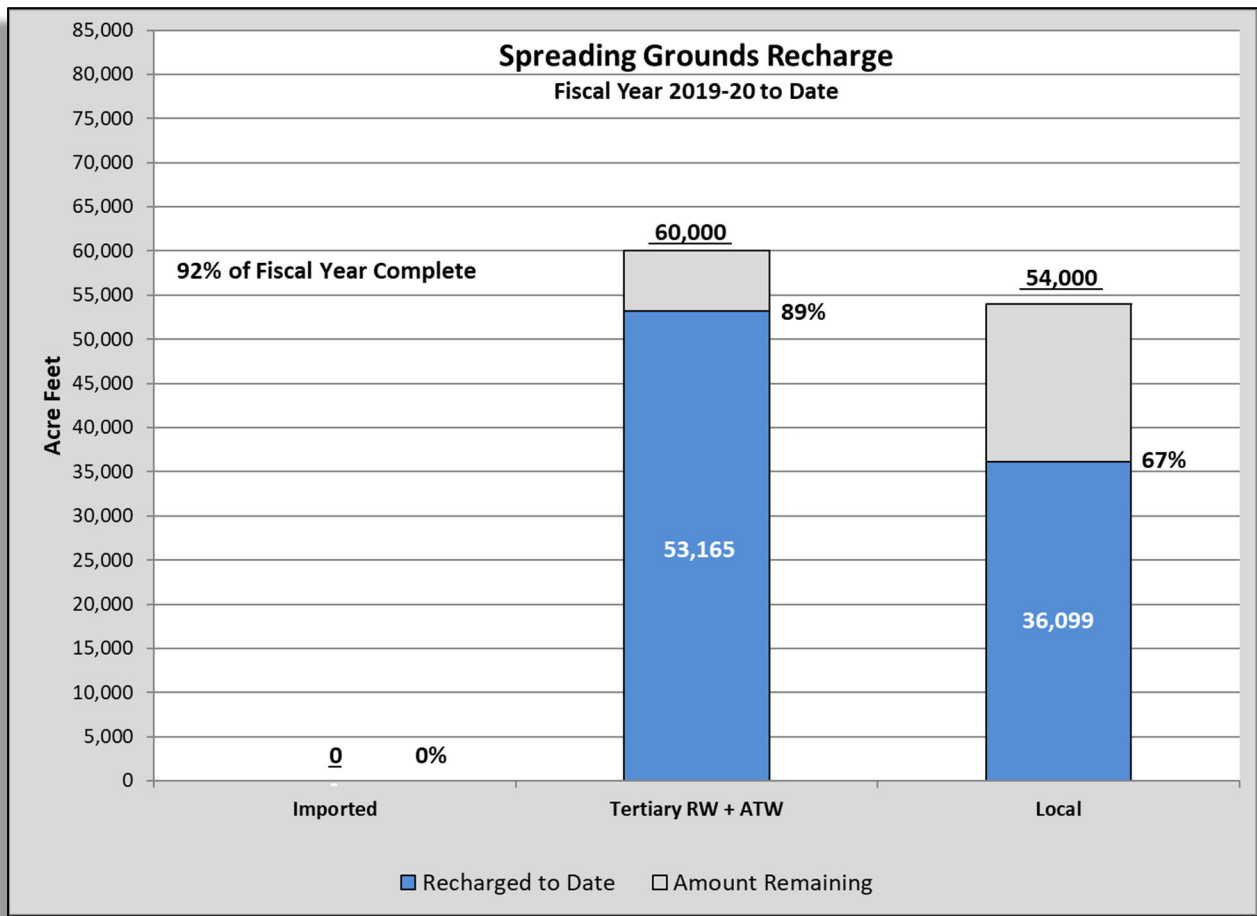
After an extensive review of over 70 years of water level fluctuations and discussions with the Board and pumping community, Water Year 1999/2000 was recognized as a representative year for the Optimum Quantity, which equated to an accumulated overdraft of approximately 612,000 acre feet. The Minimum 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 June 26, 2020, has been estimated at 748,640 acre feet (subject to change), which is 151,360 acre feet above the Minimum Groundwater Quantity and 136,640 acre feet below the Optimum Quantity. The Basin is at 53% of Optimum Quantity which is down 5% from last month.



Montebello Forebay Spreading Grounds (July 2019 - May 2020)

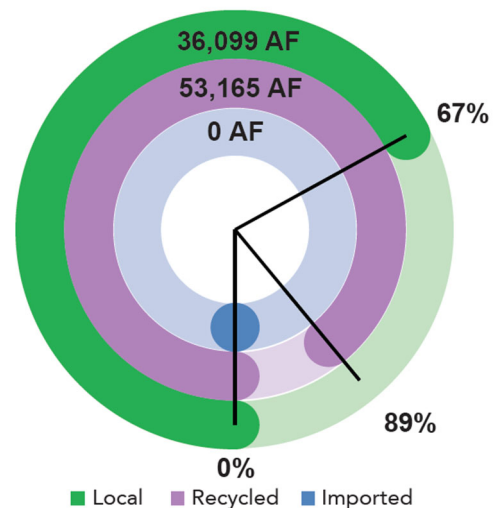
The following Chart shows the preliminary spreading grounds replenishment water:



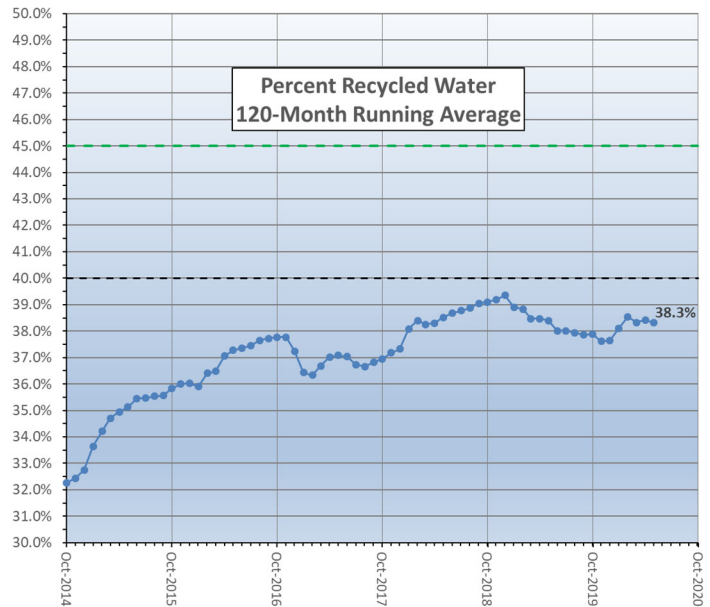
For the Fiscal Year 2019-20, no imported water purchases are anticipated.

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 first eleven months of the 2019-20 Fiscal Year, approximately 36,099 acre feet of local water capture has been reported by the LACDPW.

Spreading Grounds Recharge
Fiscal Year to Date



Preliminary numbers for the first eleven months of the 2019-20 Fiscal Year show that approximately 53,165 acre feet of recycled water has been recharged with 7,955 AF consisting of advanced treat water from the ARC AWTF. Presuming the advanced treated water as “Null Water” the 120-month running average of recycled water contribution in the Montebello Forebay is 38.3% and the regulatory maximum is 45%, with additional studies and monitoring being required once 40% is reached.



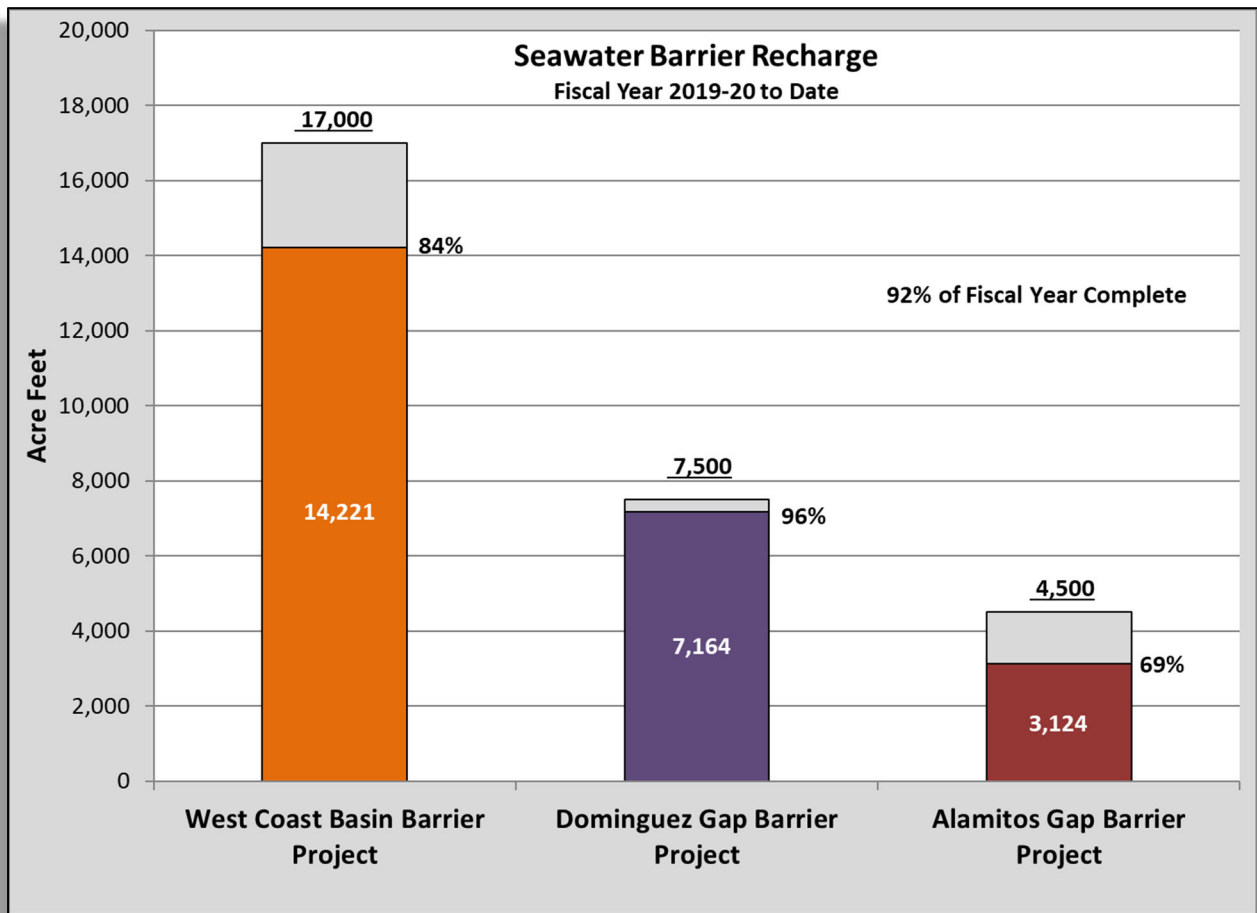
Tertiary Recycle Water Permit Update

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.

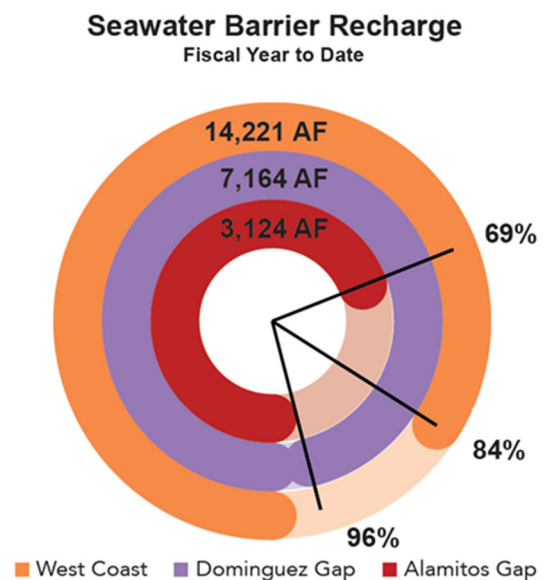
Upon receipt of comments on the Workplan from the State of California, the District and LACSD will proceed with finalizing the preparation and submittal of the new Title 22 Engineering Report. In anticipation of receiving comments, staff continues to work collaboratively with the LACSD on developing 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 - May 2020)

The following Chart shows the barrier water injection:

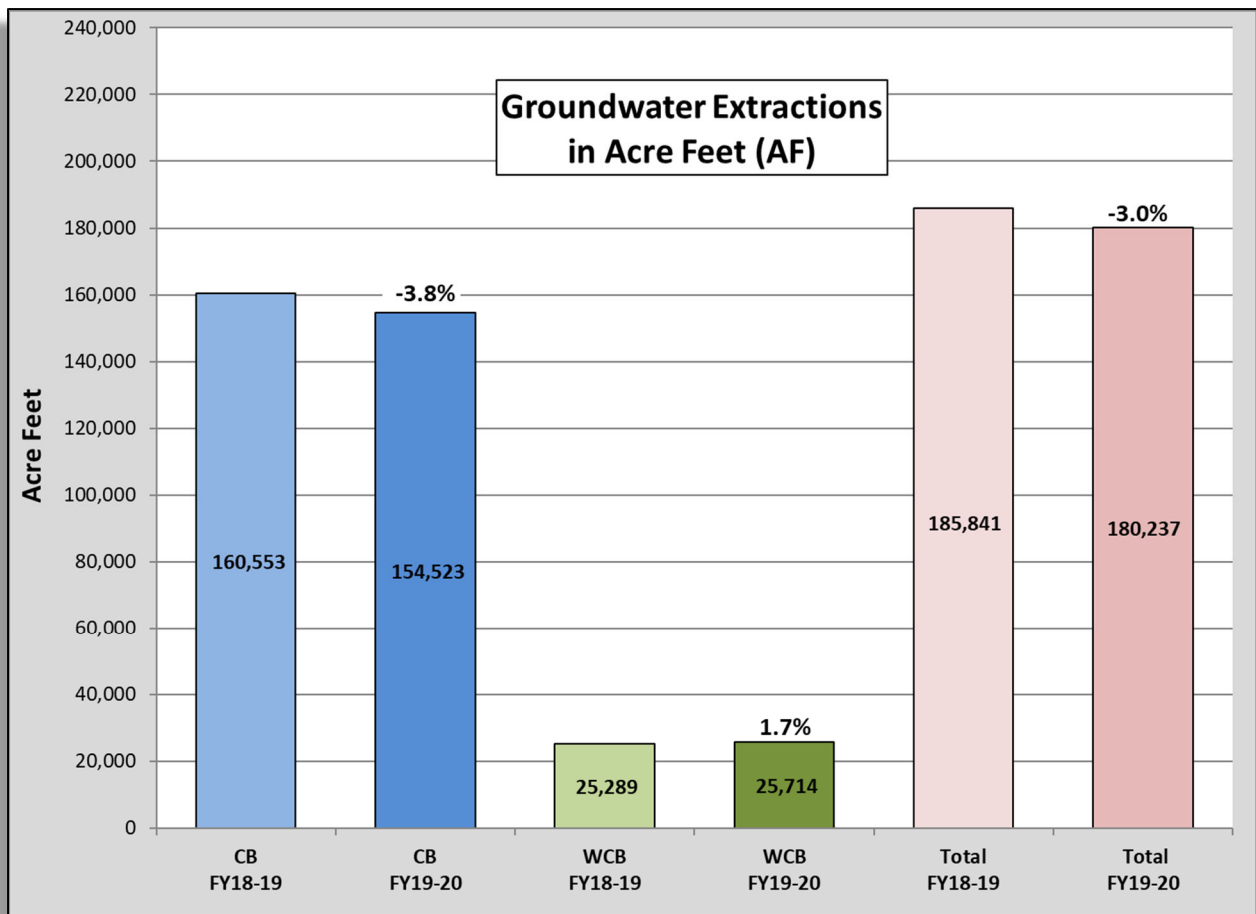


Preliminary numbers for the first eleven months of the 2019-20 Fiscal Year show that the West Coast Barrier has used 14,221 acre feet of the total 17,000 acre feet planned for injection, 84% of total for the Fiscal Year. The Dominguez Gap Barrier used 7,164 acre feet of the total 7,500 acre feet planned for injection, 96% of the total for the Fiscal Year. The Alamitos Barrier, on the WRD side, used 3,124 acre feet of the total 4,500 acre feet planned for injection, 69% 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.

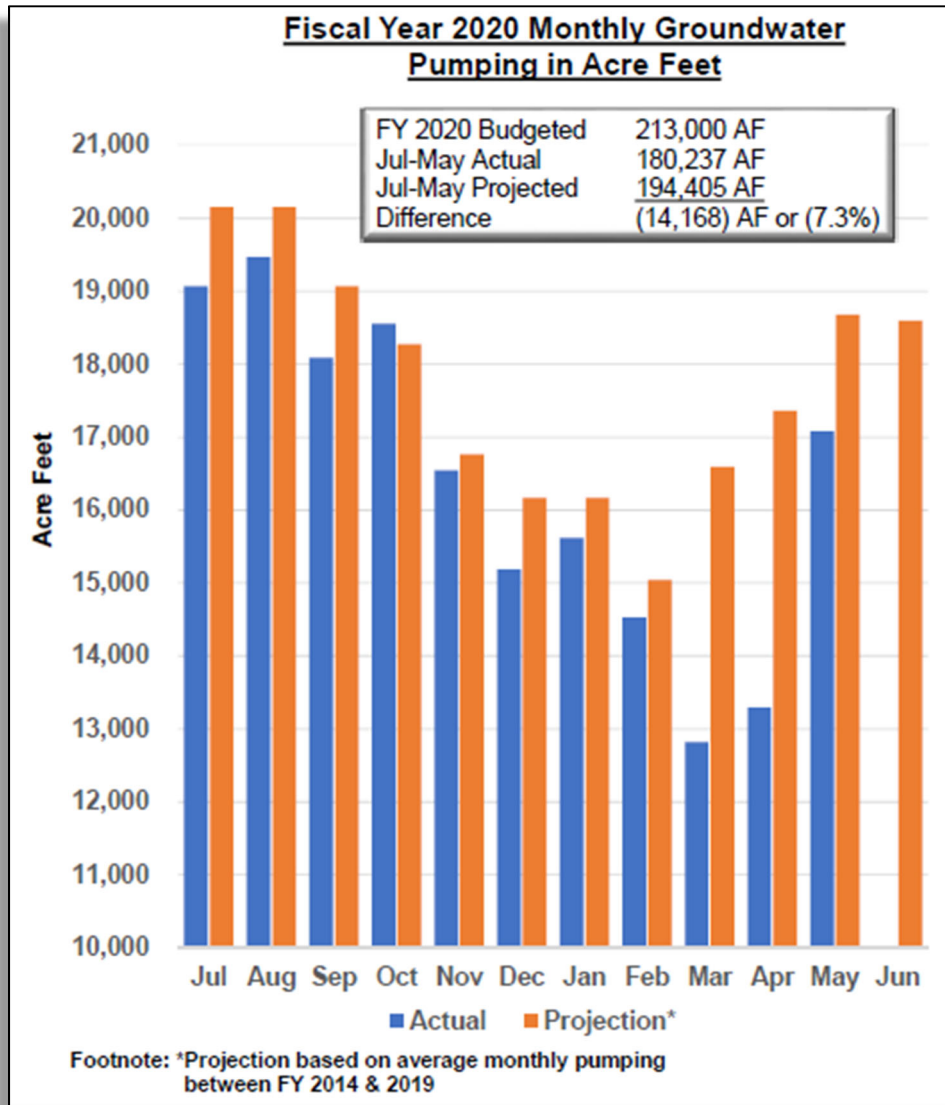


Assessible Pumping (Fiscal Year July 2019 – May 2020)

Preliminary numbers for groundwater production in the District for the Fiscal Year 2019-20 (July 2019 – May 2020) indicate pumping in the Central Basin was down 6,030 acre feet from the same time of the previous fiscal year (-3.8%) and the West Coast Basin pumping was 425 acre feet higher than the previous fiscal year (1.7%). The total pumping is 180,237 acre feet compared to 185,841 acre feet during the same time the previous year for a decrease of 5,604 acre feet, or -3.0%. The current pumping data do not include four Central Basin pumpers and one West Coast Basin pumper who have not yet reported.



Preliminary numbers indicate 180,237 acre feet have been pumped this fiscal year and is 7.3% below the projected goal of 194,405 acre feet (or -14,168 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 – May 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 <u>by Volume</u> (AF)	July 2018 - May 2019	July 2019 - May 2020	Difference	% Change
Whittier, City of	4,183.70	5,194.58	1,010.88	24.16%
Cerritos, City of	7,178.80	7,857.46	678.66	9.45%
California Water Service Company (East LA)	8,136.78	8,648.88	512.10	6.29%
Paramount, City of	4,528.30	4,977.10	448.80	9.91%
Norwalk, City of	360.61	646.82	286.21	79.37%
Bottom 5 Producing <u>by Volume</u> (AF)	July 2018 - May 2019	July 2019 - May 2020	Difference	% Change
Long Beach, City of	25,223.46	21,389.14	-3,834.32	-15.20%
Lakewood, City of Water Department	8,268.51	6,076.13	-2,192.38	-26.51%
Golden State Water Company	19,308.21	18,216.86	-1,091.35	-5.65%
San Gabriel Valley Water Company	1,510.43	698.42	-812.01	-53.76%
Downey, City of	13,144.09	12,527.04	-617.05	-4.69%

Production Trends – West Coast Basin				
Top 5 Producing <u>by Volume</u> (AF)	July 2018 - May 2019	July 2019 - May 2020	Difference	% Change
Inglewood, City of	1,081.04	3,098.98	2,017.94	186.67%
Tesoro Refining & Marketing Co., LLC	3,561.56	4,504.86	943.30	26.49%
Phillips 66 Company	4,184.62	4,719.08	534.46	12.77%
Rolling Hills Country Club	114.00	297.00	183.00	160.53%
Roman Catholic Archbishop of Los Angeles	229.98	254.93	24.95	10.85%
Bottom 5 Producing <u>by Volume</u> (AF)	July 2018 - May 2019	July 2019 - May 2020	Difference	% Change
Golden State Water Company	4,525.00	3,186.20	-1,338.80	-29.59%
Lomita, City of	468.35	2.00	-466.35	-99.57%
California Water Service Company (Dominguez)	3,725.64	3,313.63	-412.01	-11.06%
Torrance Refining & Marketing Company	1,027.08	650.99	-376.09	-36.62%
California Water Service Co./Hawthorne Lease	839.98	588.96	-251.02	-29.88%