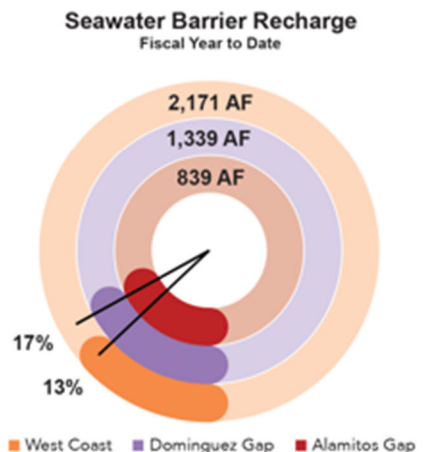
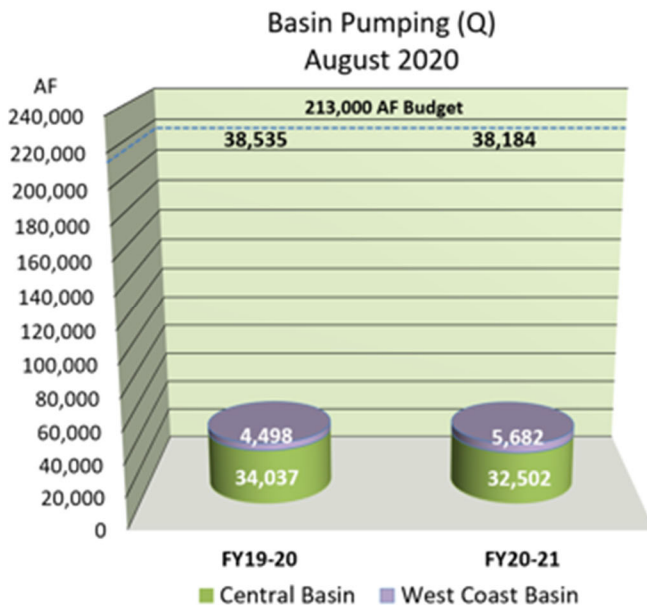
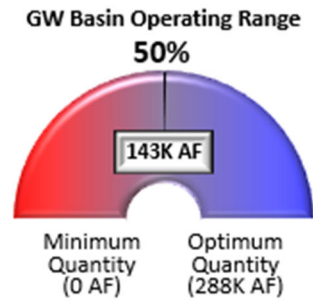
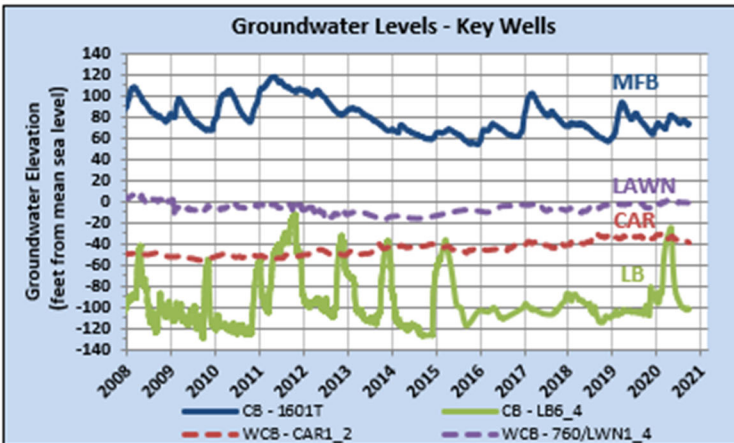
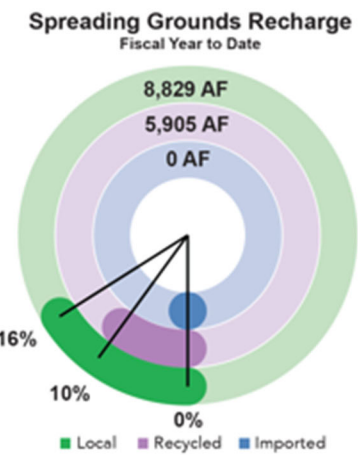
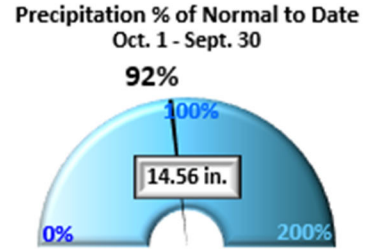
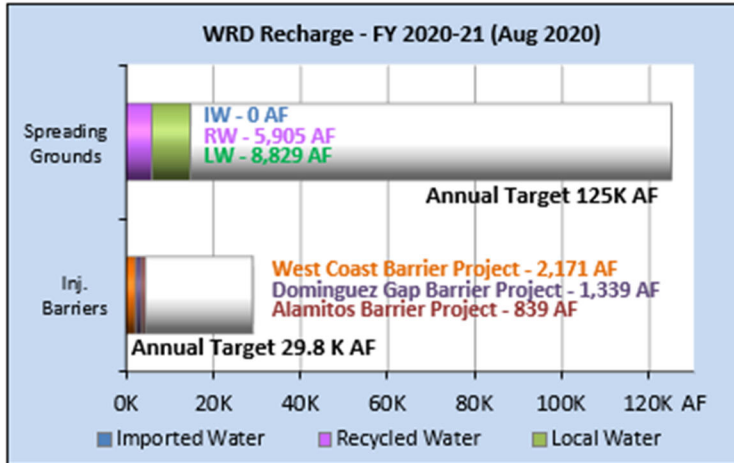


GROUNDWATER BASIN UPDATE FOR OCTOBER 2020

GROUNDWATER BASINS AT A GLANCE*



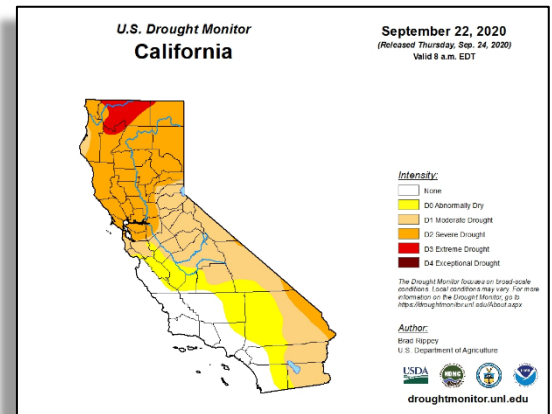
* - Preliminary numbers, subject to change.

SUMMARY

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

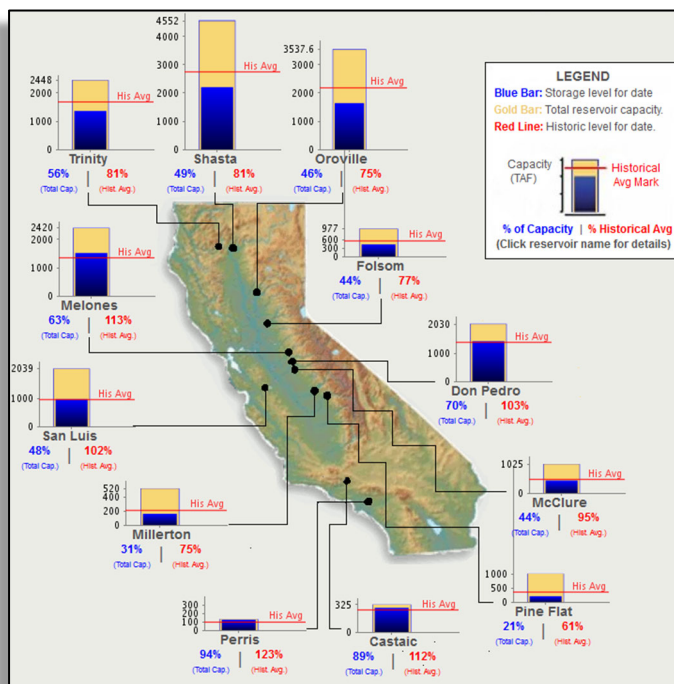
Precipitation (October 1, 2019 – September 30, 2020)

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 15.84 inches, so the District is 92% of normal. As of September 22, 2020, the U.S. Drought Monitor is reporting 84% of the State is abnormally dry, 67% under moderate drought, 35% under severe, and 3% under extreme drought conditions.



Reservoirs (as of September 28, 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 (0.02 million acre feet) occurred at San Luis Reservoir. The largest decrease (-0.54 million acre feet) occurred at Lake Mead. The smallest decrease (<-0.00 million acre feet) occurred at Lake Perris and Diamond Valley Lake.



MWD Reservoirs (SWP) Storage in Million Acre Feet

Reservoir	Capacity	Storage	% Full	Change
Trinity Lake	2.45	1.37	56%	-0.14
Lake Shasta	4.55	2.21	49%	-0.17
Lake Oroville	3.54	1.64	46%	-0.07
Folsom Lake	0.98	0.43	44%	-0.06
New Melones	2.40	1.52	63%	-0.06
Don Pedro	2.03	1.42	70%	-0.05
Lake McClure	1.02	0.45	44%	-0.05
San Luis	2.04	0.97	48%	0.02
Millerton Lake	0.52	0.16	31%	-0.06
Pine Flat	1.00	0.21	21%	-0.02
Castaic Lake	0.33	0.29	89%	-0.01
Lake Perris	0.13	0.12	94%	0.00
Silverwood	0.08	0.07	92%	0.00

MWD Reservoirs (CRA) Storage in Million Acre Feet

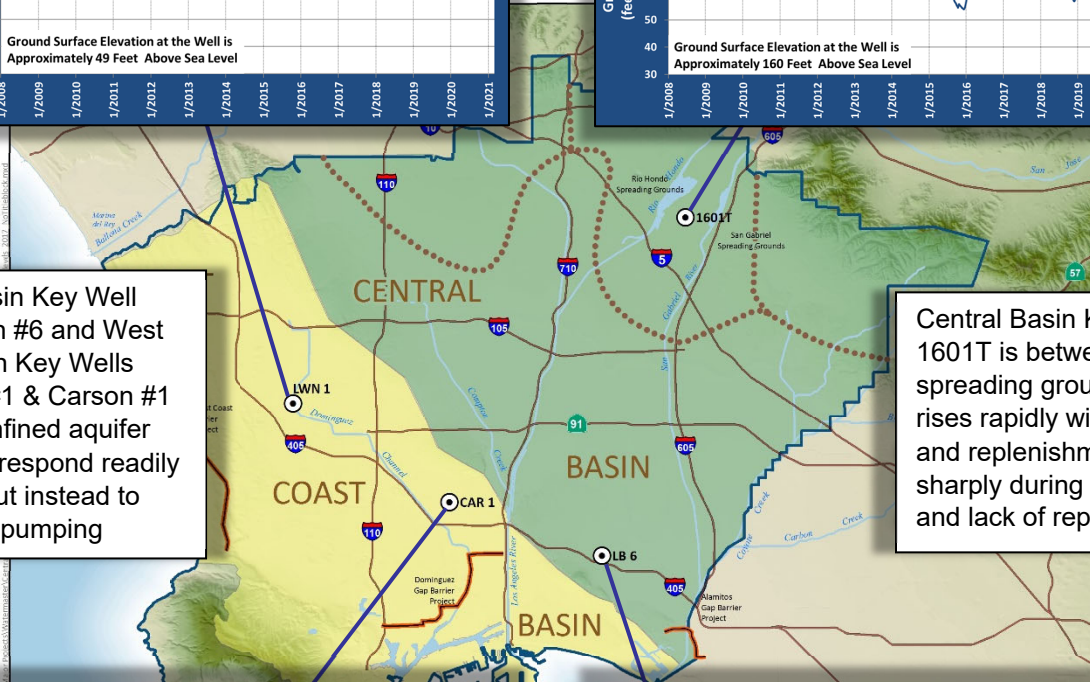
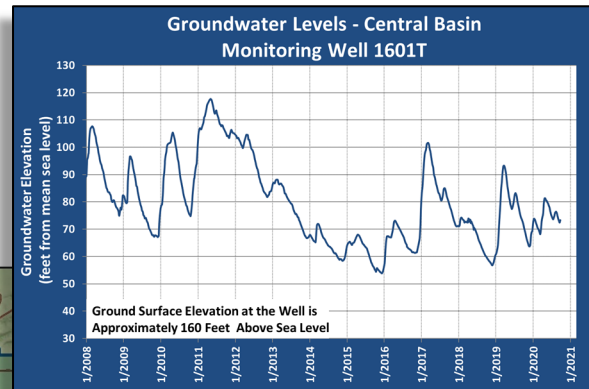
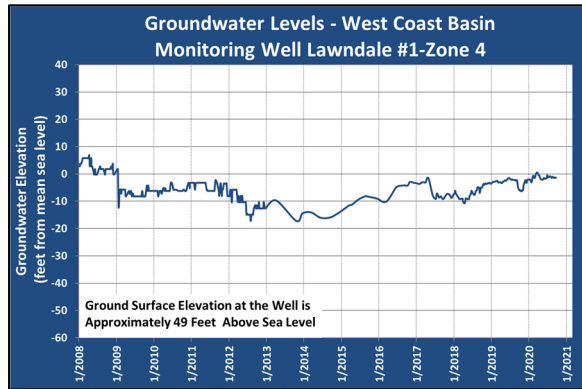
Reservoir	Capacity	Storage	% Full	Change
Powell	24.32	11.41	47%	-0.39
Mead	26.12	10.30	39%	-0.54
DVL	0.81	0.71	87%	0.00

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 46% capacity (33.28 million acre feet) which is down 1.6 million acre feet from the prior month (-0.67 million acre feet State Water Project [SWP] and -0.93 million acre feet Colorado River Aqueduct [CRA]).

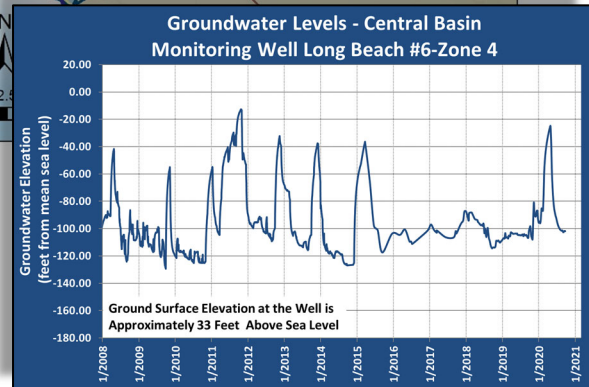
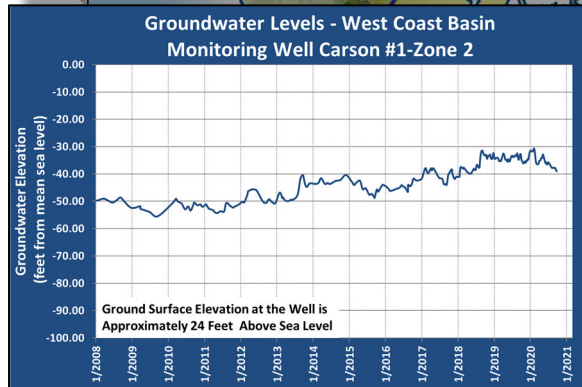
Groundwater Levels (through September 25, 2020)

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 1.6 feet	Increased 1.3 feet
Central Basin Key Well Long Beach #6 4	Decreased 0.6 foot	Decreased 0.4 foot
West Coast Basin Key Well Lawndale #1 4	Decreased 0.1 foot	Increased 4.2 feet
West Coast Basin Key Well Carson #1 2	Decreased 1.3 feet	Decreased 6.3 feet

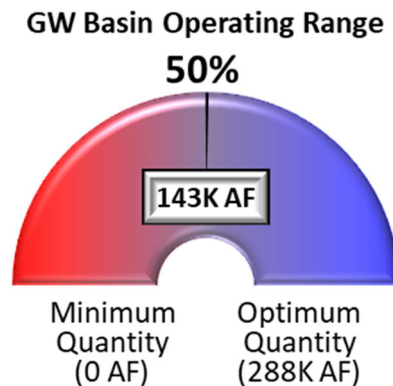
Bold indicates a change in direction (decreasing or increasing) since the last report.

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.

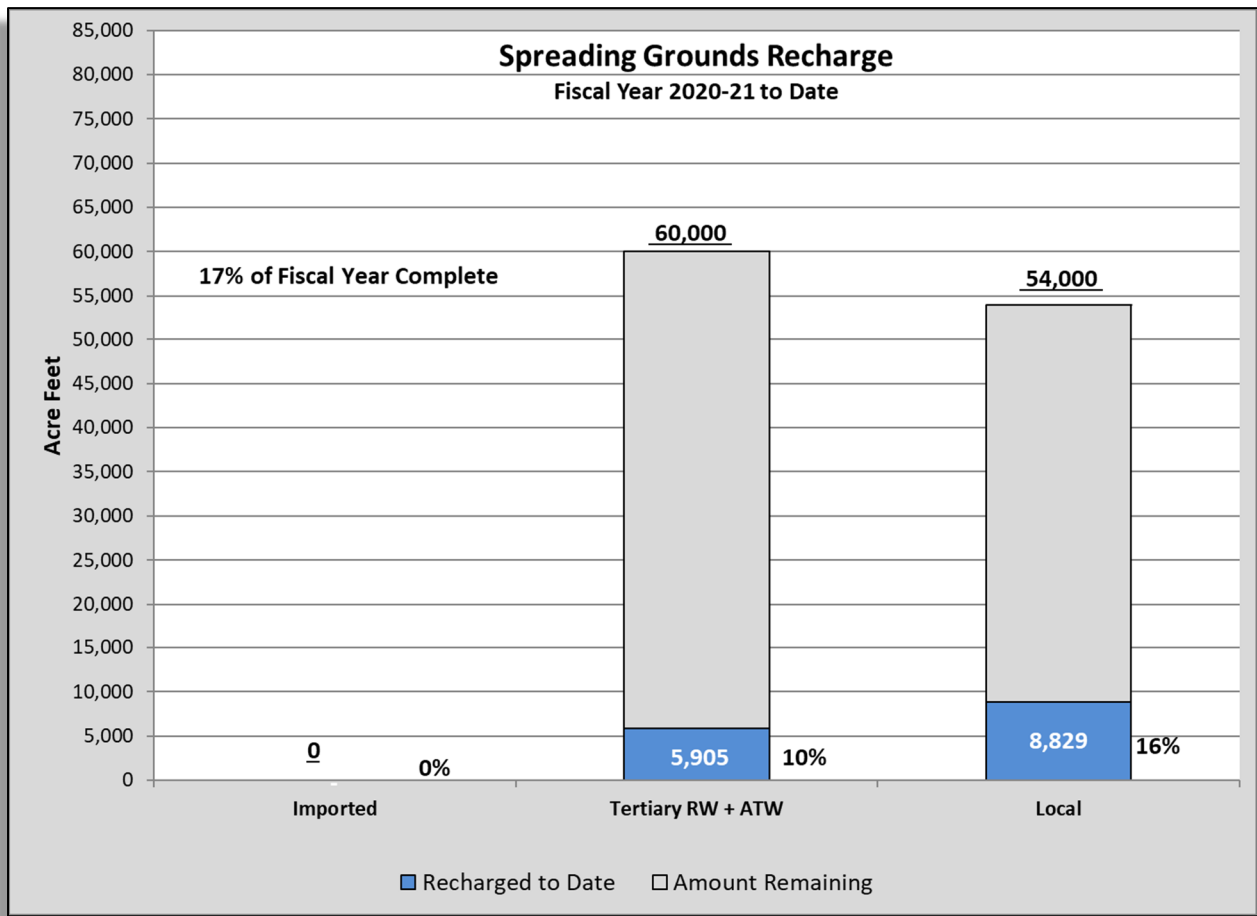
After an extensive review of over 70 years of water level fluctuations and discussions with the Board and pumping community, Water Year 1999/2000 was recognized as a representative year for the Optimum Quantity, which equated to an accumulated overdraft of approximately 612,000 acre feet. The Minimum 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 September 25, 2020, has been estimated at 756,735 acre feet (subject to change), which is 143,265 acre feet above the Minimum Groundwater Quantity and 144,735 acre feet below the Optimum Quantity. The Basin is at 50% of Optimum Quantity which is 2% lower than last month (~6,200 AF lower).



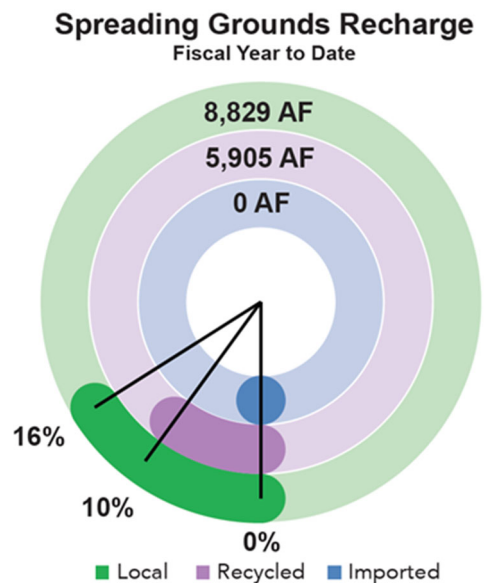
Montebello Forebay Spreading Grounds (August 2020)

The following Chart shows the preliminary spreading grounds replenishment water:

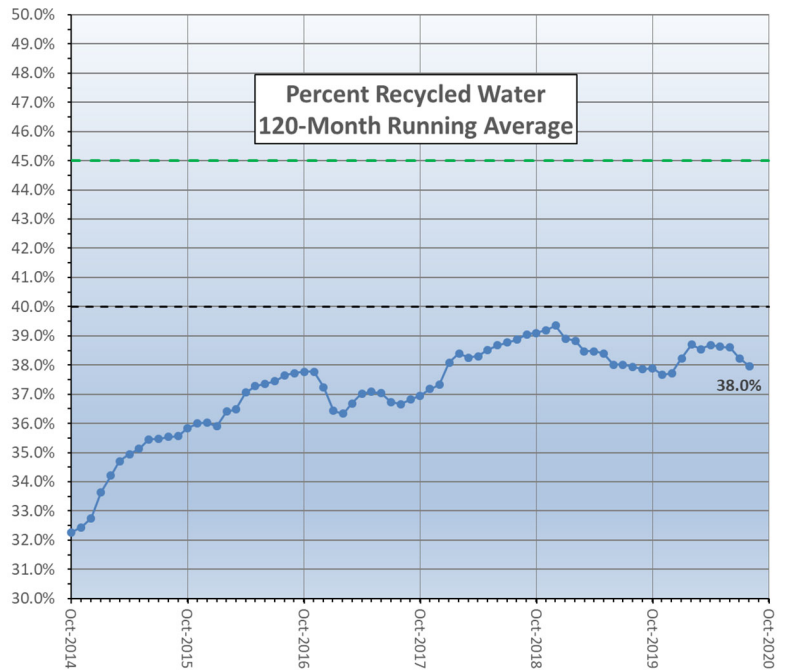


No imported water purchases are planned for Fiscal Year 2020-21.

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 2020-21 Fiscal Year, approximately 8,829 acre feet of local water capture has been reported by the LACDPW.



Preliminary numbers for the 2020-21 Fiscal Year show that approximately 5,905 acre feet of recycled water has been recharged with 1,725 acre feet 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 38.0% and the regulatory maximum is 45%, with additional studies and monitoring being required once 40% is reached.



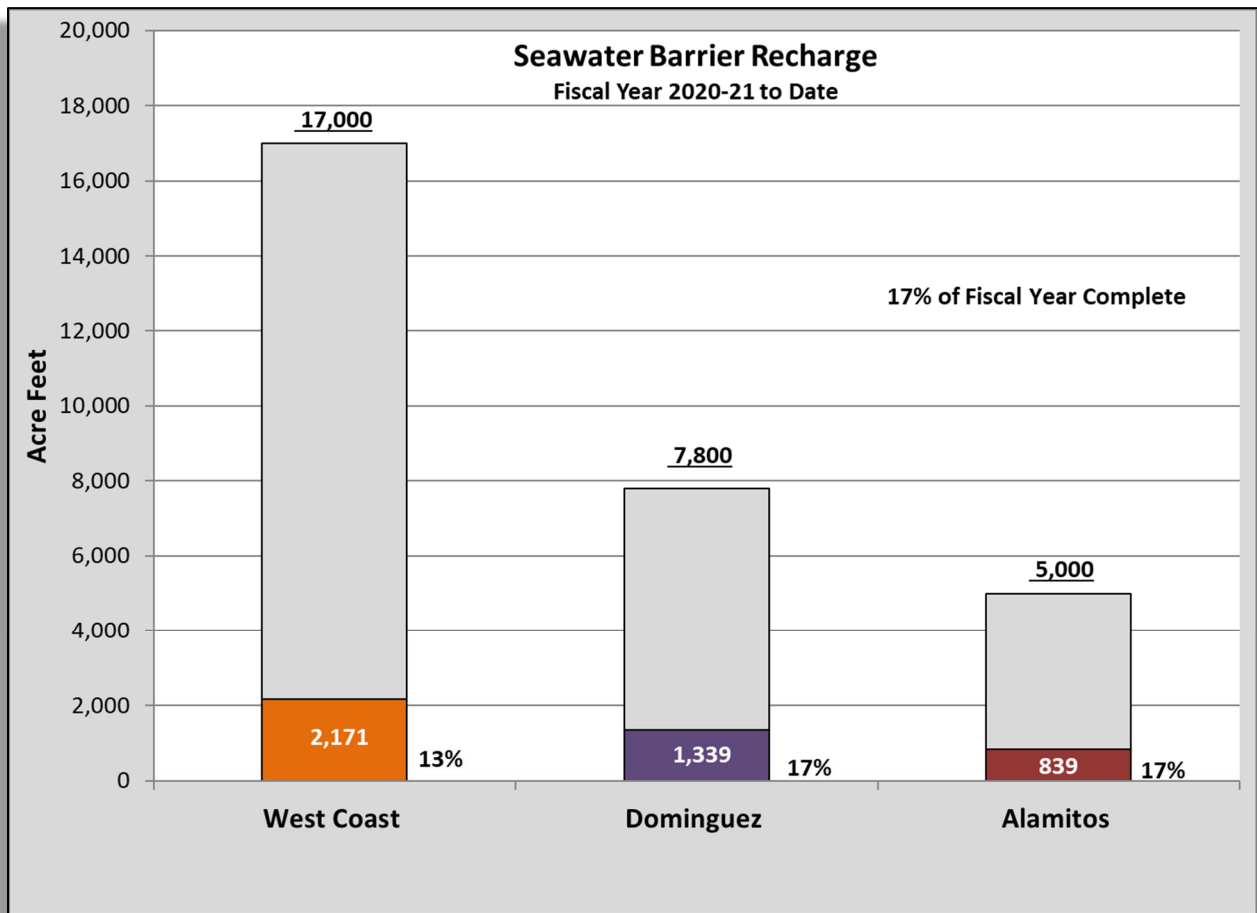
Tertiary Recycle Water Permit Update

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.

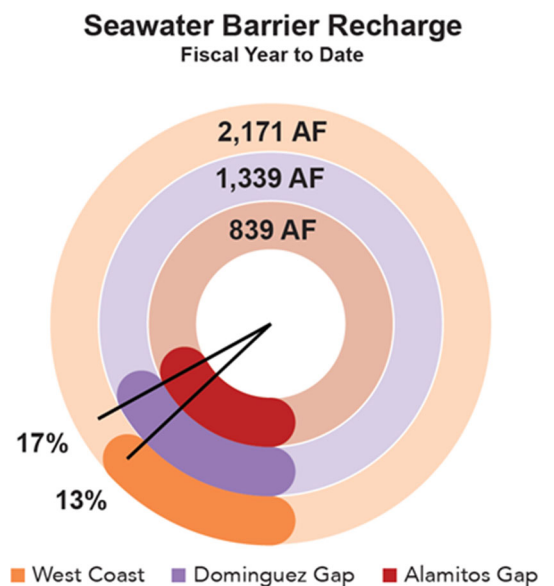
Upon receipt of comments on the Workplan from the State of California, the District and LACSD will proceed with finalizing the preparation and submittal of the new Title 22 Engineering Report. In anticipation of receiving comments, staff continues to work collaboratively with the LACSD on developing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

The following Chart shows the barrier water injection:

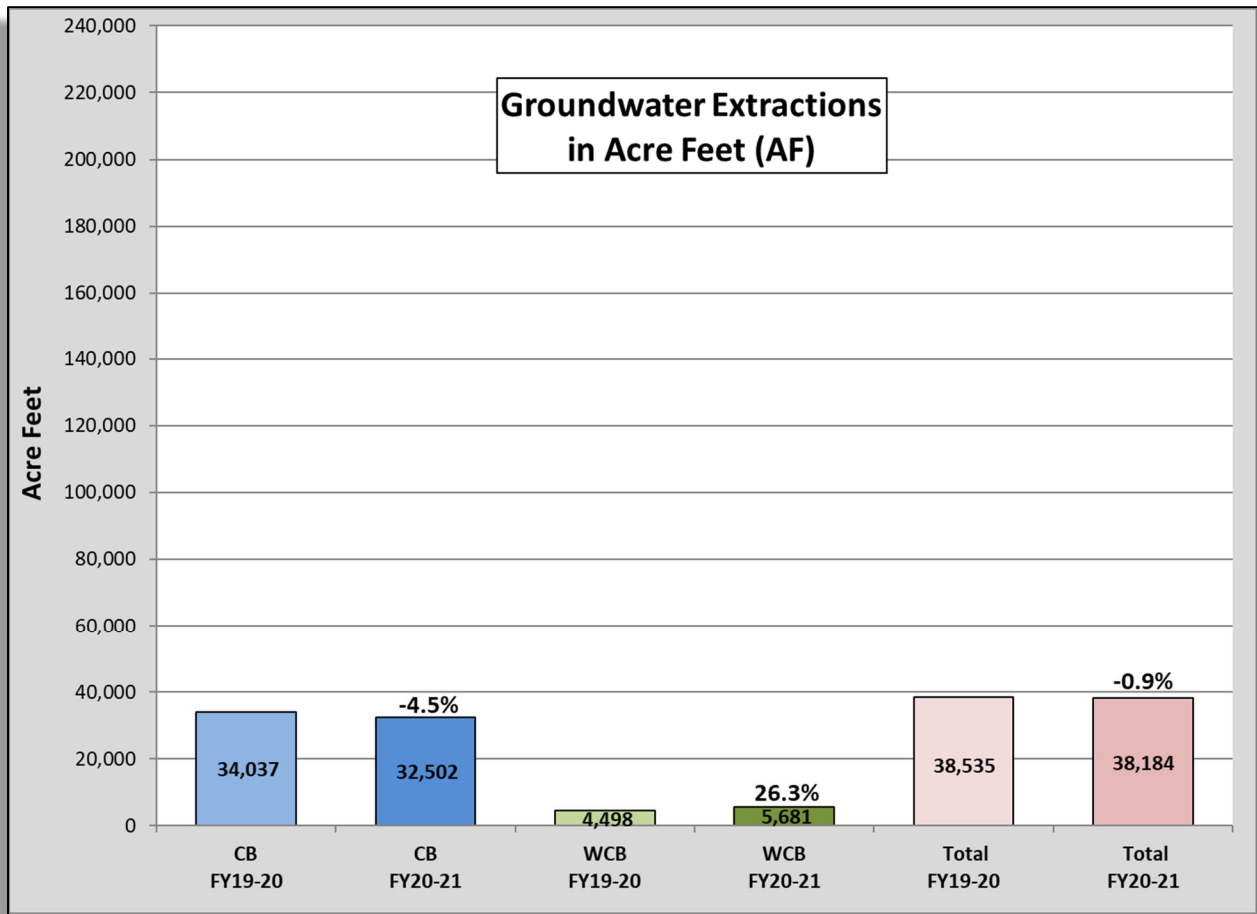


Preliminary numbers for the 2020-21 Fiscal Year show that the West Coast Barrier has used 2,171 acre feet of the total 17,000 acre feet planned for injection, 13% of total for the Fiscal Year. The Dominguez Gap Barrier used 1,339 acre feet of the total 7,800 acre feet planned for injection, 17% of the total for the Fiscal Year. The Alamos Barrier, on the WRD side, used 839 acre feet of the total 5,000 acre feet planned for injection, 17% of the total for the Fiscal Year.

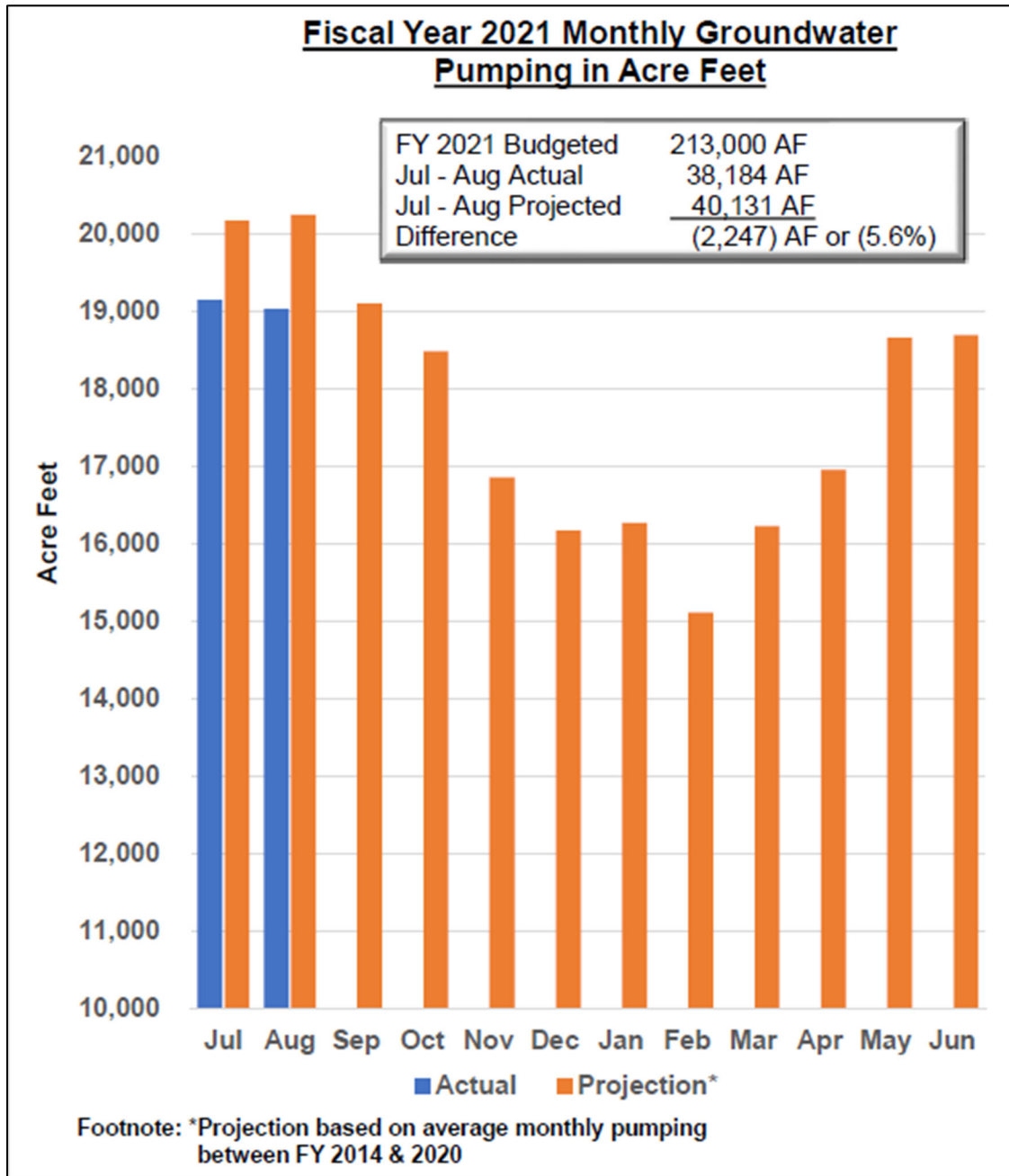


Assessible Pumping (Fiscal Year August 2020)

Preliminary numbers for groundwater production in the District for the Fiscal Year 2020-21 (August 2020) indicate pumping in the Central Basin was down 1,535 acre feet from the same time of the previous fiscal year (-4.5%) and the West Coast Basin pumping was 1,183 acre feet higher than the previous fiscal year (+26.3%). The total pumping is 38,184 acre feet compared to 38,535 acre feet during the same time the previous year for a decrease of 352 acre feet, or -0.9%. The current pumping data do not include four Central Basin pumpers and two West Coast Basin pumpers who have not yet reported for an estimated 60 additional acre feet.



Preliminary numbers indicate 38,184 acre feet have been pumped this fiscal year and is 5.6% below the projected goal of 40,131 acre feet (or -2,247 acre feet). Monthly actual production versus 7-year average monthly production projections (FY 2014 through 2020) are included in the chart below.



For the Fiscal Year 2020-21 (July - August 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 - August 2019	July - August 2020	Difference	% Change
California Water Service Company (East LA)	1,531.34	1,839.05	307.71	20.09%
Long Beach, City of	5,485.59	5,784.28	298.69	5.44%
Vernon, City of	889.95	1,077.64	187.69	21.09%
Golden State Water Company	3,758.17	3,929.37	171.20	4.56%
Bell Gardens, City of	84.63	199.17	114.54	135.34%
Bottom 5 Producing <u>by Volume</u> (AF)	July - August 2019	July - August 2020	Difference	% Change
Liberty Utilities Corporation	1,612.93	966.85	-646.08	-40.06%
Lakewood, City of Water Department	1,298.77	696.88	-601.89	-46.34%
Paramount, City of	1,022.31	705.50	-316.81	-30.99%
San Gabriel Valley Water Company	257.69	1.71	-255.98	-99.34%
Santa Fe Springs, City of	537.75	300.75	-237.00	-44.07%

Production Trends – West Coast Basin				
Top 5 Producing <u>by Volume</u> (AF)	July - August 2019	July - August 2020	Difference	% Change
Tesoro Refining & Marketing Co., LLC	660.67	1,411.99	751.32	113.72%
Golden State Water Company	74.76	685.40	610.64	816.80%
Torrance, City of	743.84	987.40	243.56	32.74%
West Basin Brewer Desalter	11.18	207.14	195.96	1,752.77%
California Water Service Company	1.57	124.42	122.85	7,824.84%
Bottom 5 Producing <u>by Volume</u> (AF)	July - August 2019	July - August 2020	Difference	% Change
California Water Service Co. (Dominguez)	724.91	436.36	-288.55	-39.80%
Torrance Refining & Marketing Company	163.59	26.84	-136.75	-83.59%
California Water Service Co./Hawthorne Lease	144.34	14.24	-130.10	-90.13%
Inglewood, City of	614.71	552.01	-62.70	-10.20%
Phillips 66 Company	917.53	866.65	-50.88	-5.55%