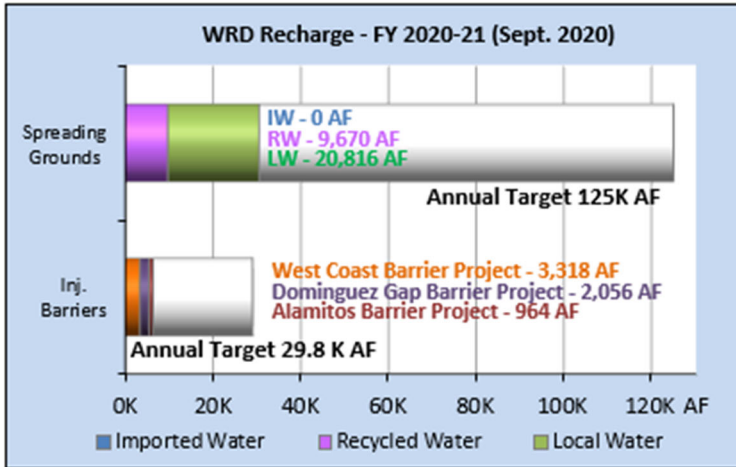
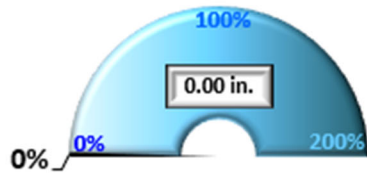


GROUNDWATER BASIN UPDATE FOR NOVEMBER 2020

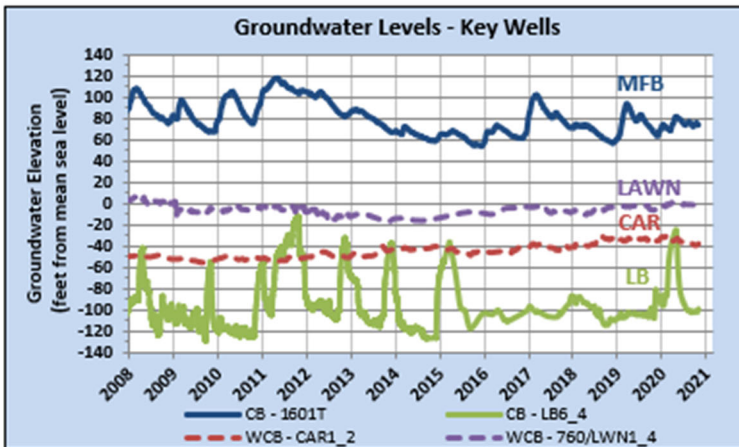
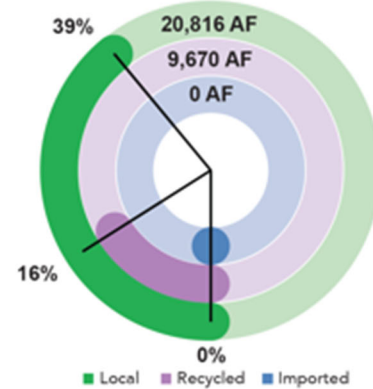
GROUNDWATER BASINS AT A GLANCE*



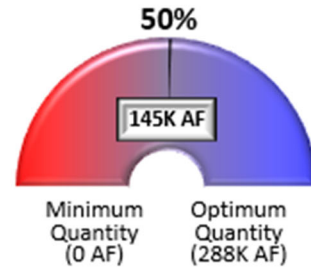
Precipitation % of Normal to Date
Oct. 1 - Oct. 31



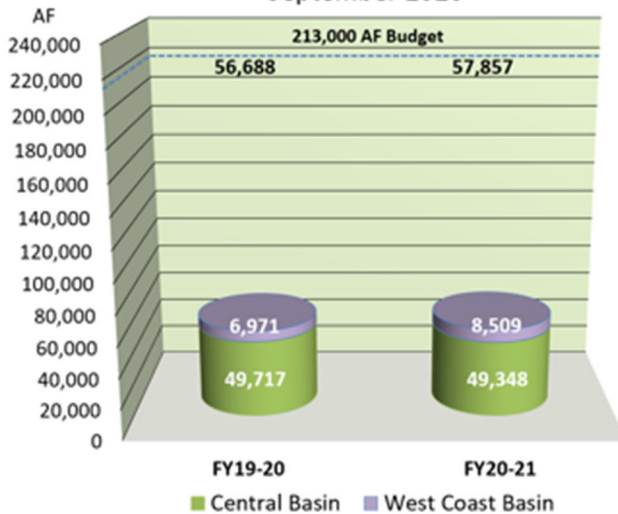
Spreading Grounds Recharge
Fiscal Year to Date



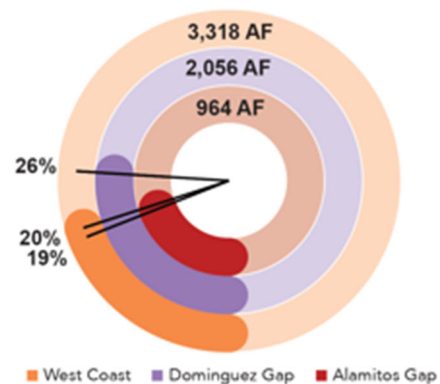
GW Basin Operating Range



Basin Pumping (Q)
September 2020



Seawater Barrier Recharge
Fiscal Year to Date



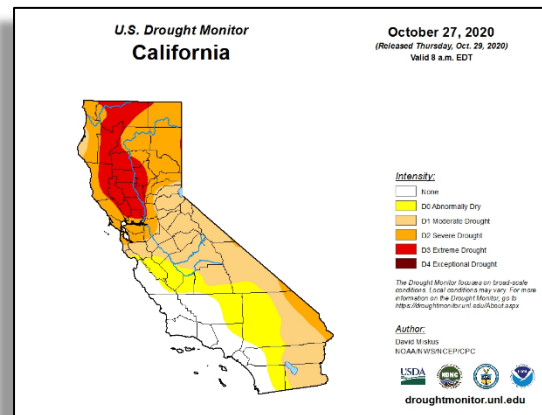
* - Preliminary numbers, subject to change.

SUMMARY

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

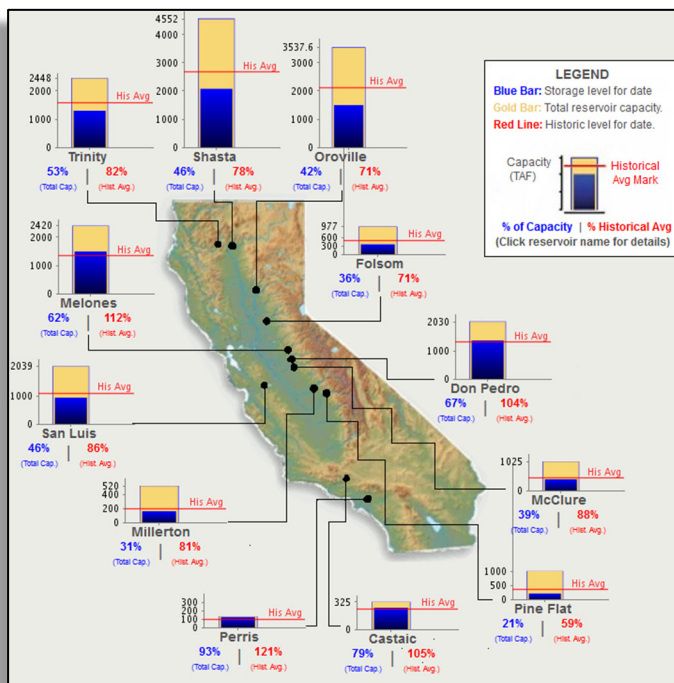
Precipitation (October 1 – 31, 2020)

The WRD precipitation index reports that for the 2020-21 Water Year, there has been no measurable rainfall. The normal rainfall for this time period is 0.51 inches, so the District is 0% of normal. As of October 27, 2020, the U.S. Drought Monitor is reporting 85% of the State is abnormally dry, 68% under moderate drought, 36% under severe, and 13% under extreme drought conditions.



Reservoirs (as of October 31, 2020)

For all 16 reservoirs reported monthly to the committee, water levels have decreased in all 16 reservoirs. The largest decrease (-0.44 million acre feet) occurred at Lake Powell. The smallest decrease (<-0.00 million acre feet) occurred at Millerton Lake, Pine Flat Lake, and Diamond Valley Lake.



MWD Reservoirs (SWP) Storage in Million Acre Feet

Reservoir	Capacity	Storage	% Full	Change
Trinity Lake	2.45	1.30	53%	-0.07
Lake Shasta	4.55	2.08	46%	-0.13
Lake Oroville	3.54	1.50	42%	-0.14
Folsom Lake	0.98	0.35	36%	-0.08
New Melones	2.40	1.50	62%	-0.03
Don Pedro	2.03	1.37	67%	-0.05
Lake McClure	1.02	0.40	39%	-0.05
San Luis	2.04	0.93	46%	-0.04
Millerton Lake	0.52	0.16	31%	0.00
Pine Flat	1.00	0.21	21%	0.00
Castaic Lake	0.33	0.26	79%	-0.03
Lake Perris	0.13	0.12	93%	0.00
Silverwood	0.08	0.07	85%	-0.01

MWD Reservoirs (CRA) Storage in Million Acre Feet

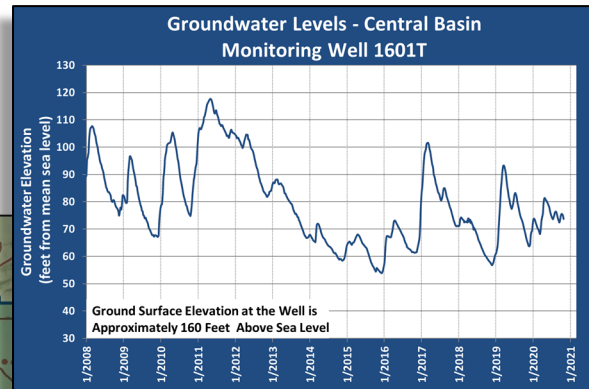
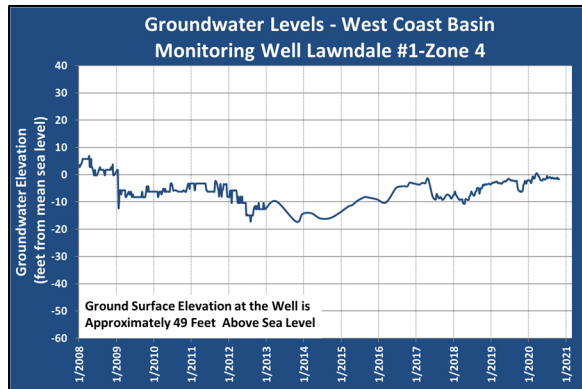
Reservoir	Capacity	Storage	% Full	Change
Powell	24.32	10.97	45%	-0.44
Mead	26.12	10.16	39%	-0.13
DVL	0.81	0.71	87%	0.00

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 44% capacity (32.07 million acre feet) which is down 1.21 million acre feet from the prior month (-0.63 million acre feet State Water Project [SWP] and -0.58 million acre feet Colorado River Aqueduct [CRA]).

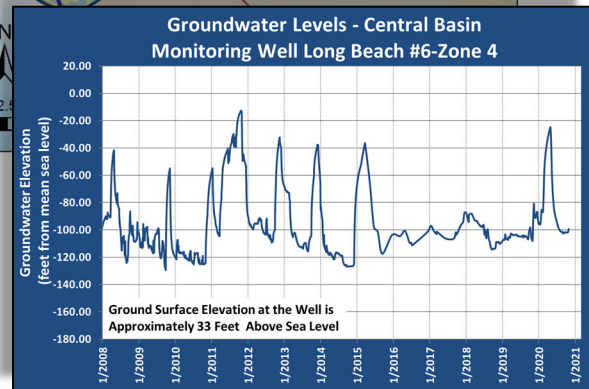
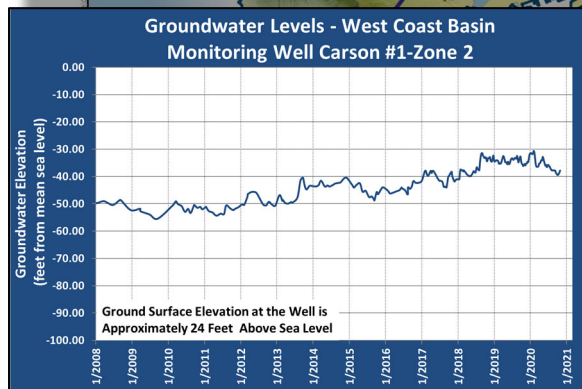
Groundwater Levels (through October 30, 2020)

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	Increased 0.4 foot	Increased 7.5 feet
Central Basin Key Well Long Beach #6 4	Increased 2.5 feet	Increased 8.5 feet
West Coast Basin Key Well Lawndale #1 4	Decreased 0.32 foot	Increased 4.5 feet
West Coast Basin Key Well Carson #1 2	Increased 1.2 feet	Decreased 2.1 feet

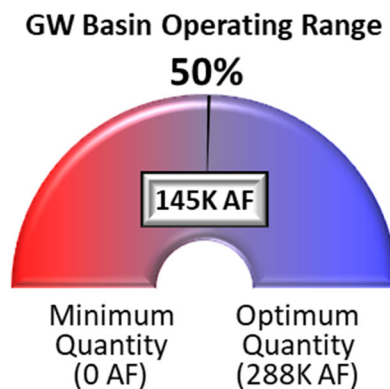
Bold indicates a change in direction (decreasing or increasing) since the last report.

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.

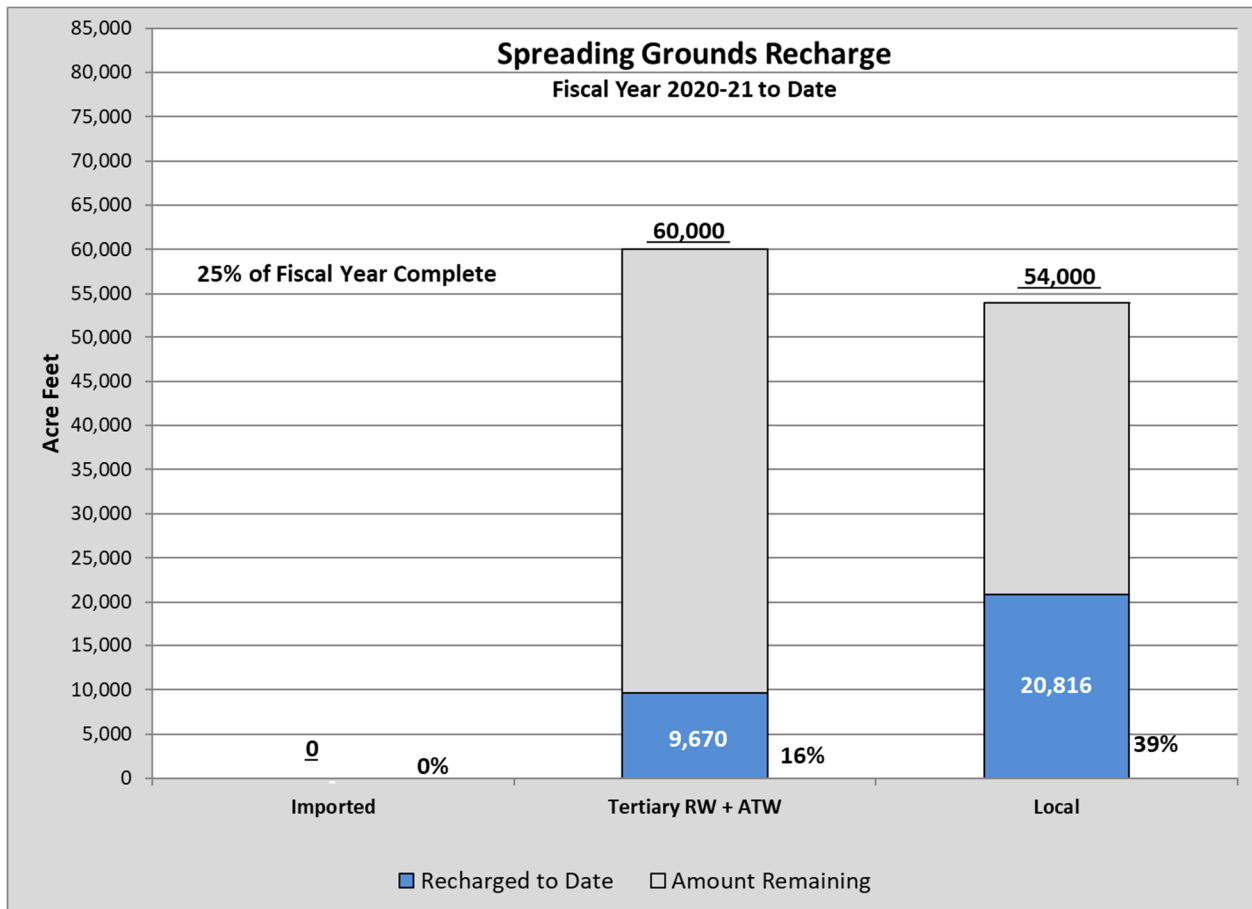
After an extensive review of over 70 years of water level fluctuations and discussions with the Board and pumping community, Water Year 1999/2000 was recognized as a representative year for the Optimum Quantity, which equated to an accumulated overdraft of approximately 612,000 acre feet. The Minimum 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 October 30, 2020, has been estimated at 755,193 acre feet (subject to change), which is 144,807 acre feet above the Minimum Groundwater Quantity and 143,193 acre feet below the Optimum Quantity. The Basin is at 50% of Optimum Quantity which is <1% lower than last month (~1,500 AF lower).



Montebello Forebay Spreading Grounds (September 2020)

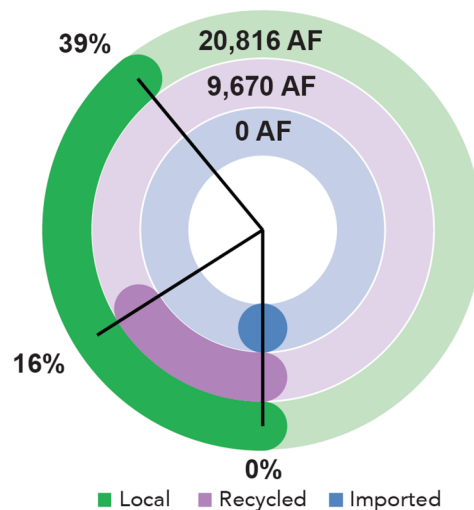
The following Chart shows the preliminary spreading grounds replenishment water:



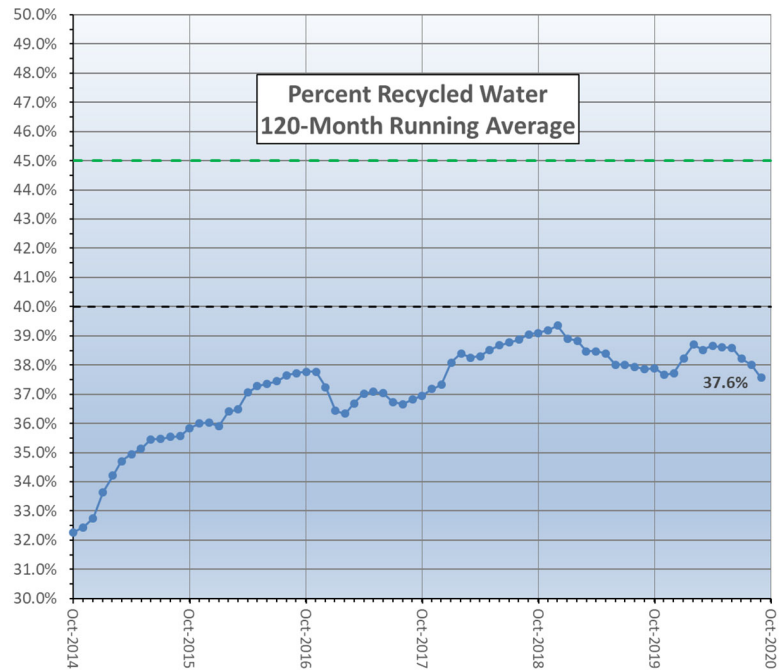
No imported water purchases are planned for Fiscal Year 2020-21.

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 20,816 acre feet of local water capture has been reported by the LACDPW as a result of summer releases from Morris Dam.

Spreading Grounds Recharge
Fiscal Year to Date



Preliminary numbers for the 2020-21 Fiscal Year show that approximately 9,670 acre feet of recycled water has been recharged with 2,775 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 37.6% and the regulatory maximum is 45%, with additional studies and monitoring being required once 40% is reached.



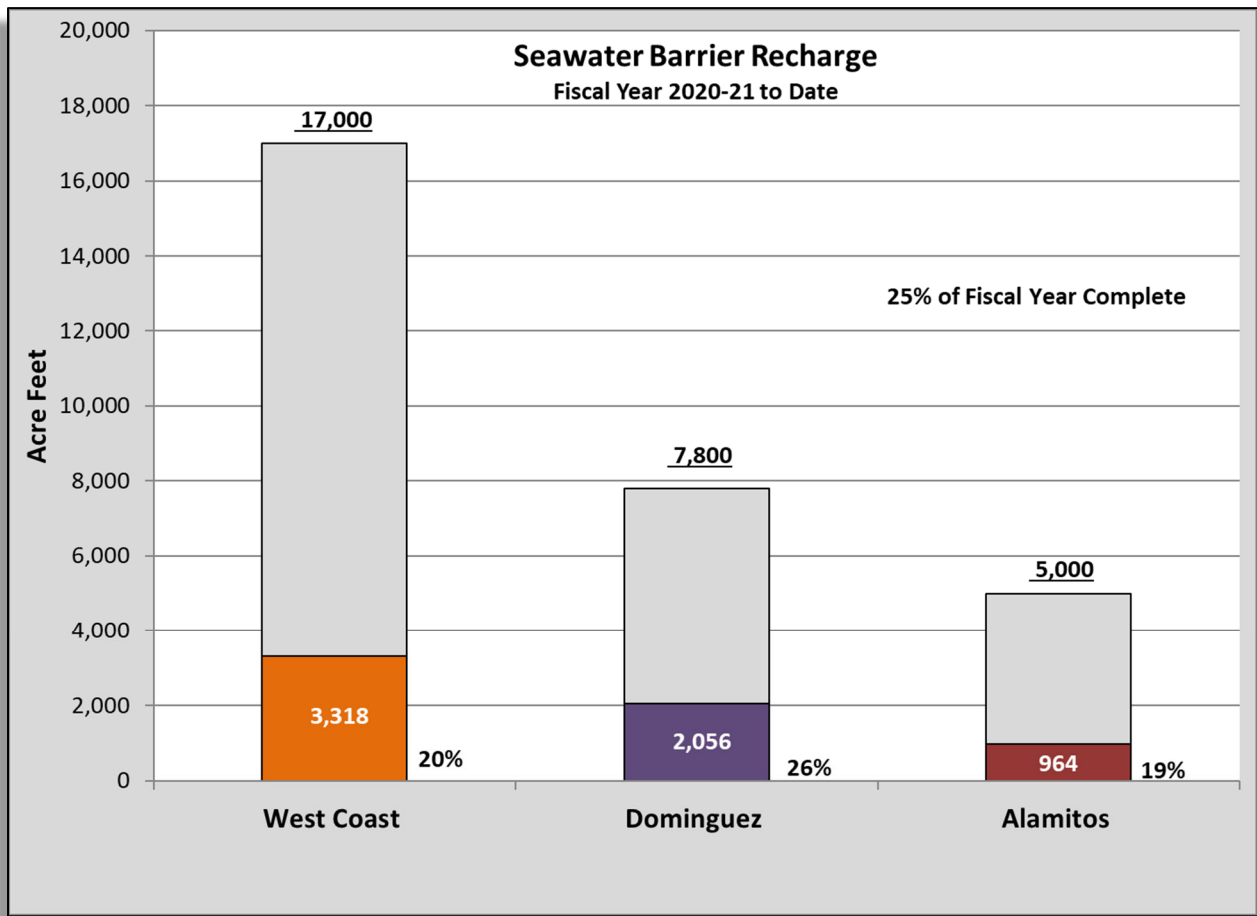
Tertiary Recycle Water Permit Update

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.

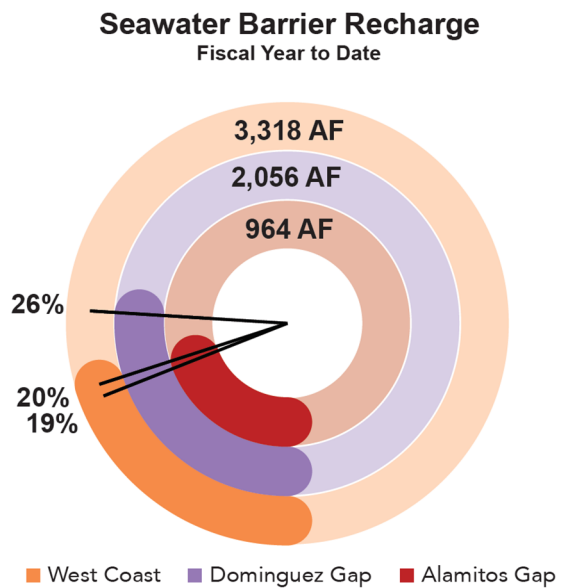
Upon receipt of comments on the Workplan from the State of California, the District and LACSD will proceed with finalizing the preparation and submittal of the new Title 22 Engineering Report. In anticipation of receiving comments, staff continues to work collaboratively with the LACSD on developing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

The following Chart shows the barrier water injection:

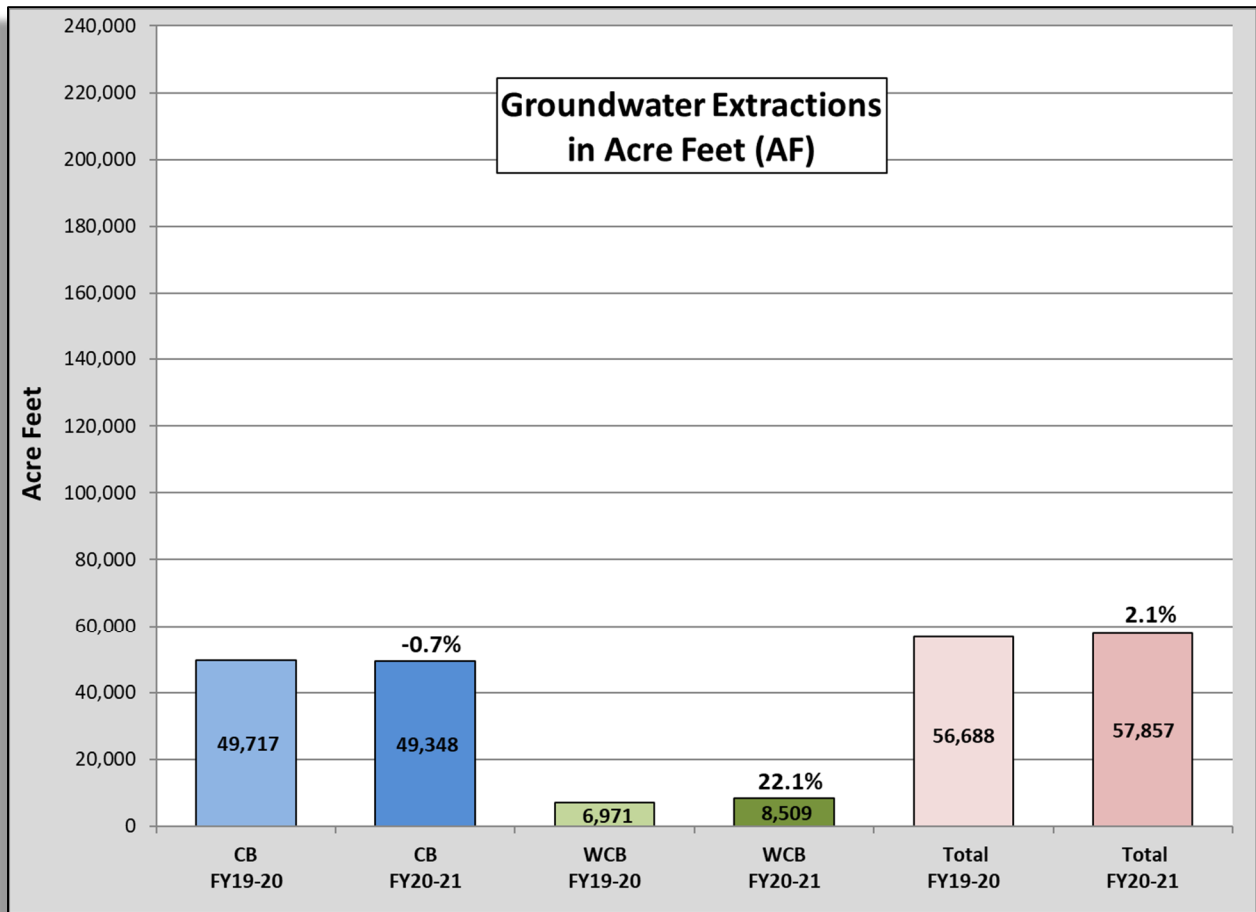


Preliminary numbers for the 2020-21 Fiscal Year show that the West Coast Barrier has used 3,318 acre feet of the total 17,000 acre feet planned for injection, 20% of total for the Fiscal Year. The Dominguez Gap Barrier used 2,056 acre feet of the total 7,800 acre feet planned for injection, 26% of the total for the Fiscal Year. The Alamitos Barrier, on the WRD side, used 964 acre feet of the total 5,000 acre feet planned for injection, 19% of the total for the Fiscal Year.

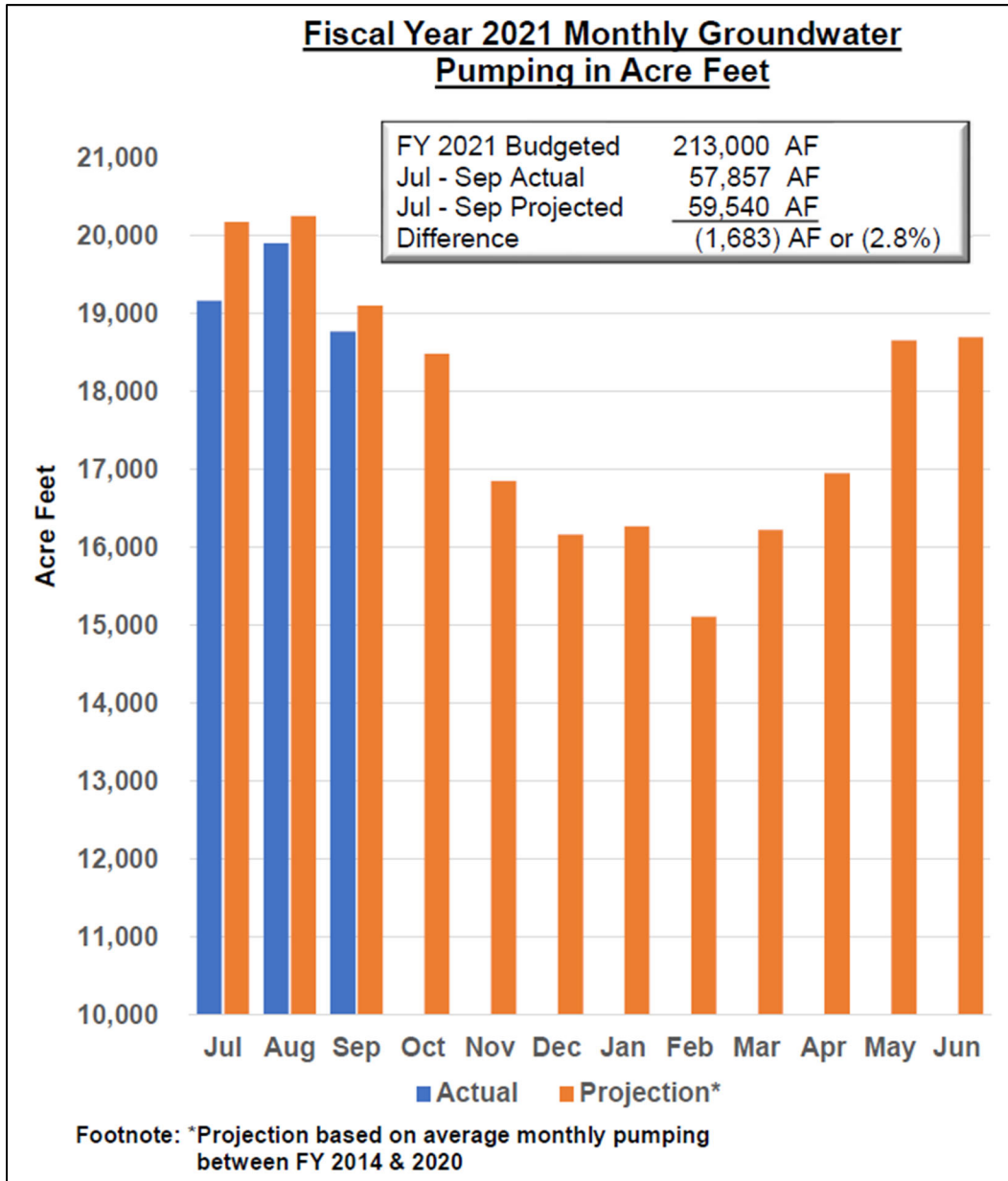


Assessible Pumping (Fiscal Year September 2020)

Preliminary numbers for groundwater production in the District for the Fiscal Year 2020-21 (September 2020) indicate pumping in the Central Basin was down 368 acre feet from the same time of the previous fiscal year (-0.7%) and the West Coast Basin pumping was 1,538 acre feet higher than the previous fiscal year (+22.1%). The total pumping is 57,857 acre feet compared to 56,688 acre feet during the same time the previous year for a increase of 1,170 acre feet, or 2.1%. The current pumping data do not include six Central Basin pumpers and one West Coast Basin pumper who have not yet reported for an estimated 10 additional acre feet.



Preliminary numbers indicate 57,857 acre feet have been pumped this fiscal year and is 2.8% below the projected goal of 59,540 acre feet (or -1,683 acre feet). This is an increase of 564 AF from what was reported last month (-2,247 AF) due to additional pumping data recorded for August. 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 - September 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 – Sept. 2019	July – Sept. 2020	Difference	% Change
California Water Service Company (East LA)	2,321.02	2,789.15	468.13	20.17%
Golden State Water Company	5,490.64	5,833.15	342.51	6.24%
Bell Gardens, City of	84.63	295.30	210.67	248.93%
Vernon, City of	1,382.99	1,558.69	175.70	12.70%
Lakewood, City of Water Department	1,997.07	2,139.75	142.68	7.14%
Bottom 5 Producing by Volume (AF)	July – Sept. 2019	July – Sept. 2020	Difference	% Change
Liberty Utilities Corporation	2,385.80	1,401.39	-984.41	-41.26%
Paramount, City of	1,527.29	1,089.30	-437.99	-28.68%
San Gabriel Valley Water Company	414.96	3.71	-411.25	-99.11%
Commerce, City of	449.00	128.55	-320.45	-71.37%
Downey, City of	4,228.70	3,911.23	-317.47	-7.51%

Production Trends – West Coast Basin				
Top 5 Producing by Volume (AF)	July – Sept. 2019	July – Sept. 2020	Difference	% Change
Tesoro Refining & Marketing Co., LLC	1,094.42	2,103.94	1,009.52	92.24%
Golden State Water Company	381.18	1,014.63	633.45	166.18%
Torrance, City of	1,070.35	1,551.24	480.89	44.93%
West Basin Brewer Desalter	30.00	324.40	294.40	981.33%
California Water Service Company	2.10	211.38	209.28	9,965.7%
Bottom 5 Producing by Volume (AF)	July – Sept. 2019	July – Sept. 2020	Difference	% Change
Cal Water Service Company (Dominguez)	1,018.90	639.08	-379.82	-37.28%
Torrance Refining & Marketing Company	246.21	53.18	-193.03	-78.40%
Cali Water Service Co./Hawthorne Lease	192.28	14.65	-177.63	-92.38%
Phillips 66 Company	1,368.80	1,245.58	-123.22	-9.00%
Inglewood, City of	932.99	812.60	-120.39	-12.90%