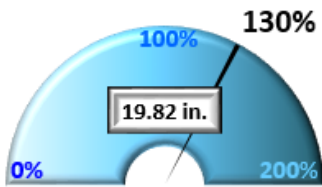




GROUNDWATER BASIN UPDATE FOR SEPTEMBER 2019

GROUNDWATER BASINS AT A GLANCE*

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



GW Basin Operating Range
47%

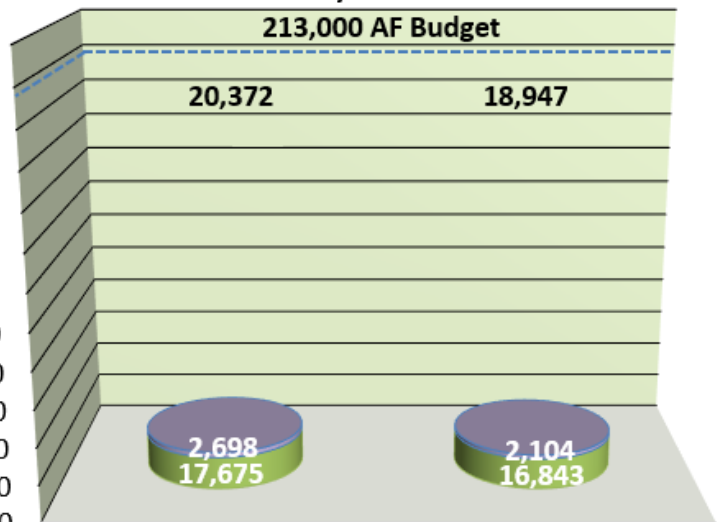


Minimum Quantity (0 AF) Optimum Quantity (288K AF)

AF

240,000
220,000
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0

Basin Pumping (Q)
July 2019

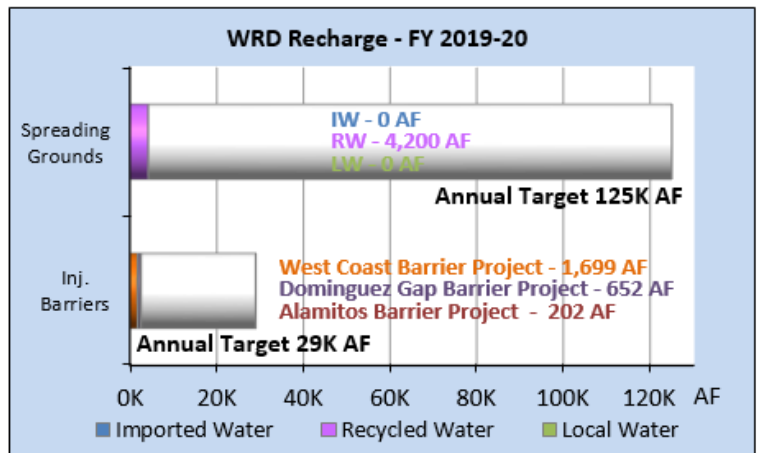
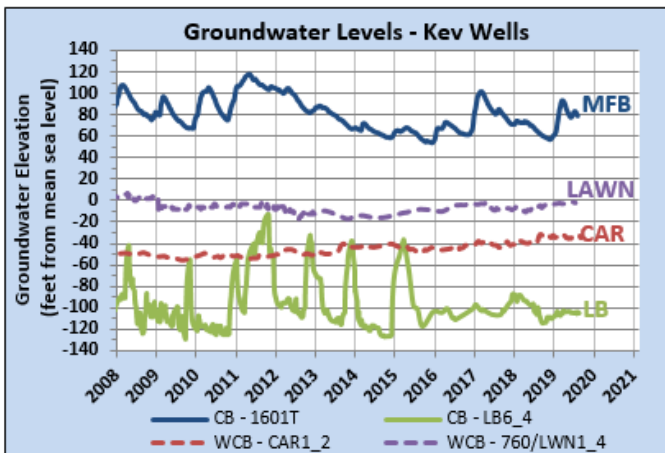


FY18-19

FY19-20

■ Central Basin

■ West Coast Basin



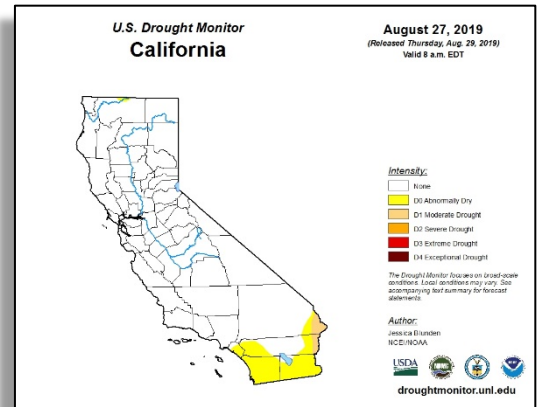
* - Preliminary numbers, subject to change.

SUMMARY

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

Precipitation (Oct 1st – August 27th)

The WRD precipitation index reports that for the 2018-19 Water Year, there has been 19.82 inches of rainfall. The normal rainfall for this time period is 15.29 inches, so the District is 130% of normal. As of August 27, 2019, the U.S. Drought Monitor is reporting 9% of the State is abnormally dry, 1% is under moderate drought conditions.



Reservoirs (as of August 28, 2019)

For all 16 reservoirs reported monthly to the committee, water levels have increased in 2 reservoirs compared to levels recorded in the previous month. Water levels rose the most at Lake Mead (0.04 million acre feet). The largest decrease (-0.43 million acre feet) occurred at Lake Oroville. The smallest decrease (0.01 million acre feet) occurred at Lake Perris and DVL.

These 16 reservoirs are at 57% capacity (41.52 million acre feet) which is down from the prior month (-1.72 million acre feet State Water Project [SWP] and -0.25 million acre feet Colorado River Aqueduct [CRA]). The largest contributing factor to the change in reservoir storage is decreases at Lake Oroville (SWP) and Lake Powell (CRA).

Storage in Million Acre Feet

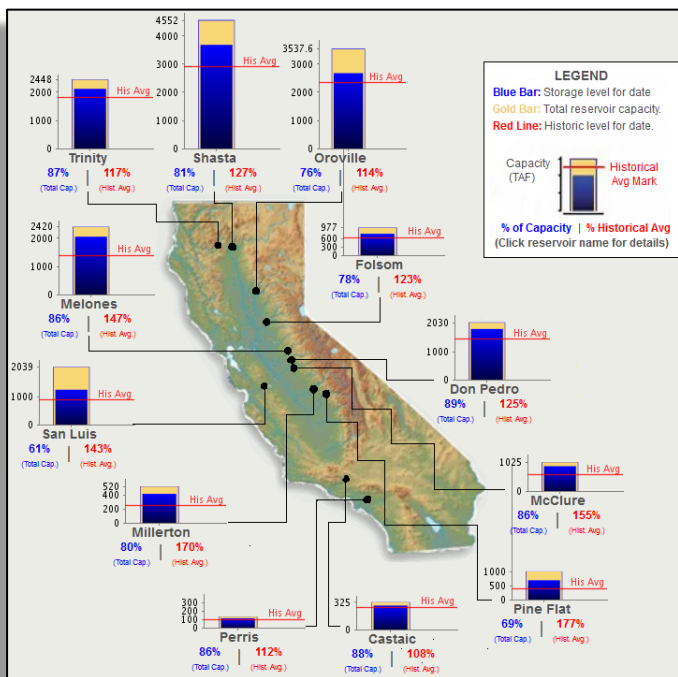
Reservoir	Capacity	Storage	% Full	Change
Trinity Lake	2.45	2.21	90%	-0.12
Lake Shasta	4.55	4.02	88%	-0.37
Lake Oroville	3.54	3.11	88%	-0.37
Folsom Lake	0.98	0.84	86%	-0.09
New Melones	2.40	2.14	89%	-0.08
Don Pedro	2.03	1.98	97%	0.02
Lake McClure	1.02	0.97	95%	-0.02
San Luis	2.04	1.42	70%	-0.10
Millerton Lake	0.52	0.49	95%	-0.01
Pine Flat	1.00	0.88	88%	-0.05
Castaic Lake	0.33	0.30	93%	0.00
Lake Perris	0.13	0.12	91%	-0.01
Silverwood	0.08	0.07	87%	0.00

MWD Reservoirs (CRA)

Storage in Million Acre Feet

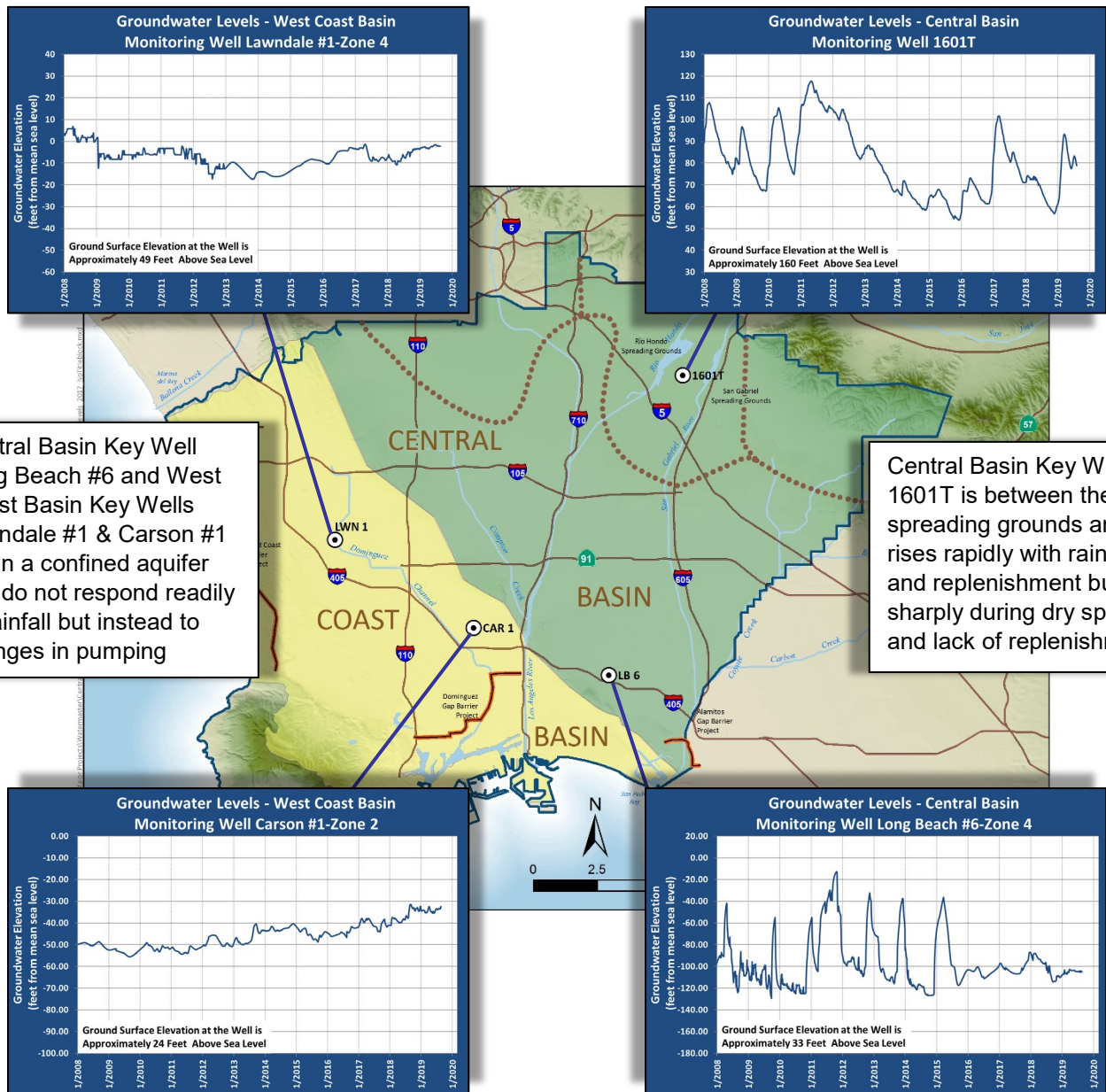
Reservoir	Capacity	Storage	% Full	Change
Powell	24.30	13.93	57%	1.30
Mead	26.12	10.25	39%	-0.16
DVL	0.81	0.76	94%	-0.01

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



Groundwater Levels (through August 23, 2019)

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 5.6 feet	Increased 13.6 feet
Central Basin Key Well Long Beach #6 4	Decreased 0.7 foot	Increased 2.2 feet
West Coast Basin Key Well Lawndale #1 4	Decreased 0.2 foot	Increased 2.7 feet
West Coast Basin Key Well Carson #1 2	Increased 1.0 foot	Increased 0.4 feet

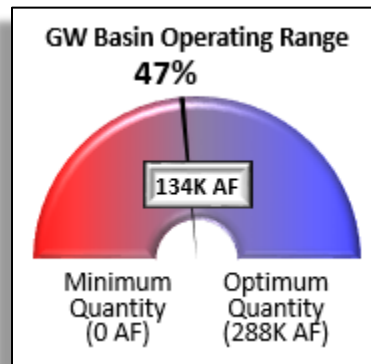
Bold indicates a change in direction (decreasing or increasing) since the last report.

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.

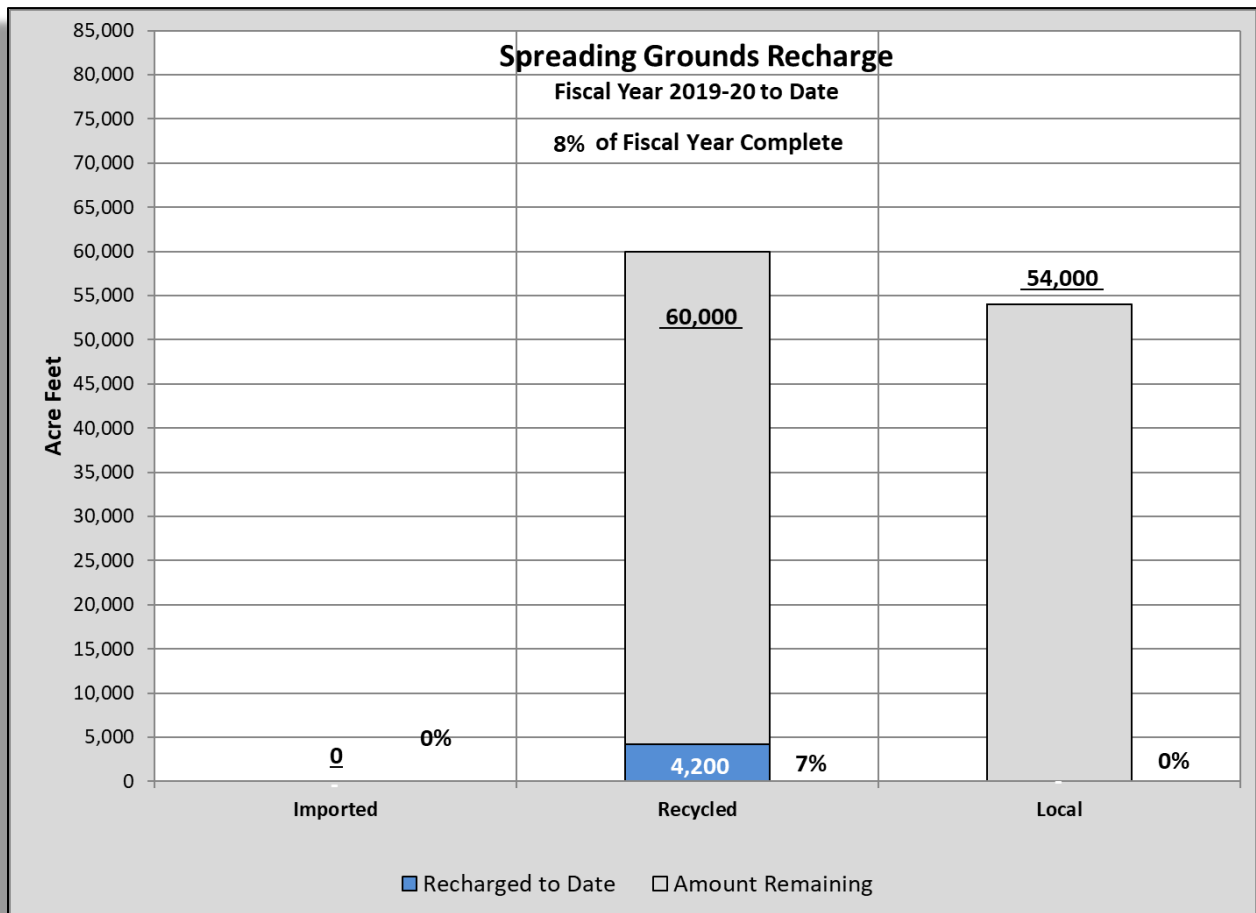
After an extensive review of over 70 years of water level fluctuations and discussions with the Board and pumping community, Water Year 1999/2000 was recognized as a representative year for the Optimum Quantity, which equated to an accumulated overdraft of approximately 612,000 acre-feet. The Minimum 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 August 23, 2019, has been estimated at 765,828 acre-feet (subject to change), which is 134,172 acre-feet above the Minimum Groundwater Quantity and 153,828 acre-feet below the Optimum Quantity.



Montebello Forebay Spreading Grounds (July 2019)

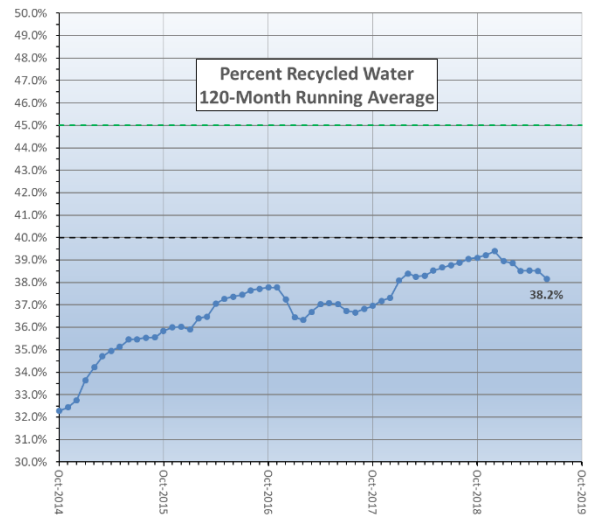
The following Chart shows the preliminary spreading grounds replenishment water:



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

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 month of the 2019-20 Fiscal Year, approximately 0 acre-feet of local water capture has been reported by the LACDPW.

Preliminary numbers for the first month of the 2019-20 Fiscal Year show that approximately 4,200 acre-feet of recycled water has been recharged. The 120-month running average of recycled water contribution in the Montebello Forebay is 38.2% and the regulatory maximum is 45%, with additional studies and monitoring being required once 40% is reached.



Tertiary Recycle Water Permit Update

The following is a brief update of the ongoing collaboration between the District and CSDLA regarding the use of tertiary treated recycled water at the Montebello Forebay Spreading Grounds. As previously discussed, both agencies have prepared a tentative schedule with the goal of submitting the regulatory requested Workplan by the end of the calendar year in preparation of the new Title 22 Engineering Report in conformance with the 2014 Groundwater Replenishment Using Recycled Water Regulations (GRRRs). Upon receipt of comments on the Workplan from the State of California, the District and CSDLA will proceed with the preparation and submittal of the new Title 22 Engineering Report in 2020.

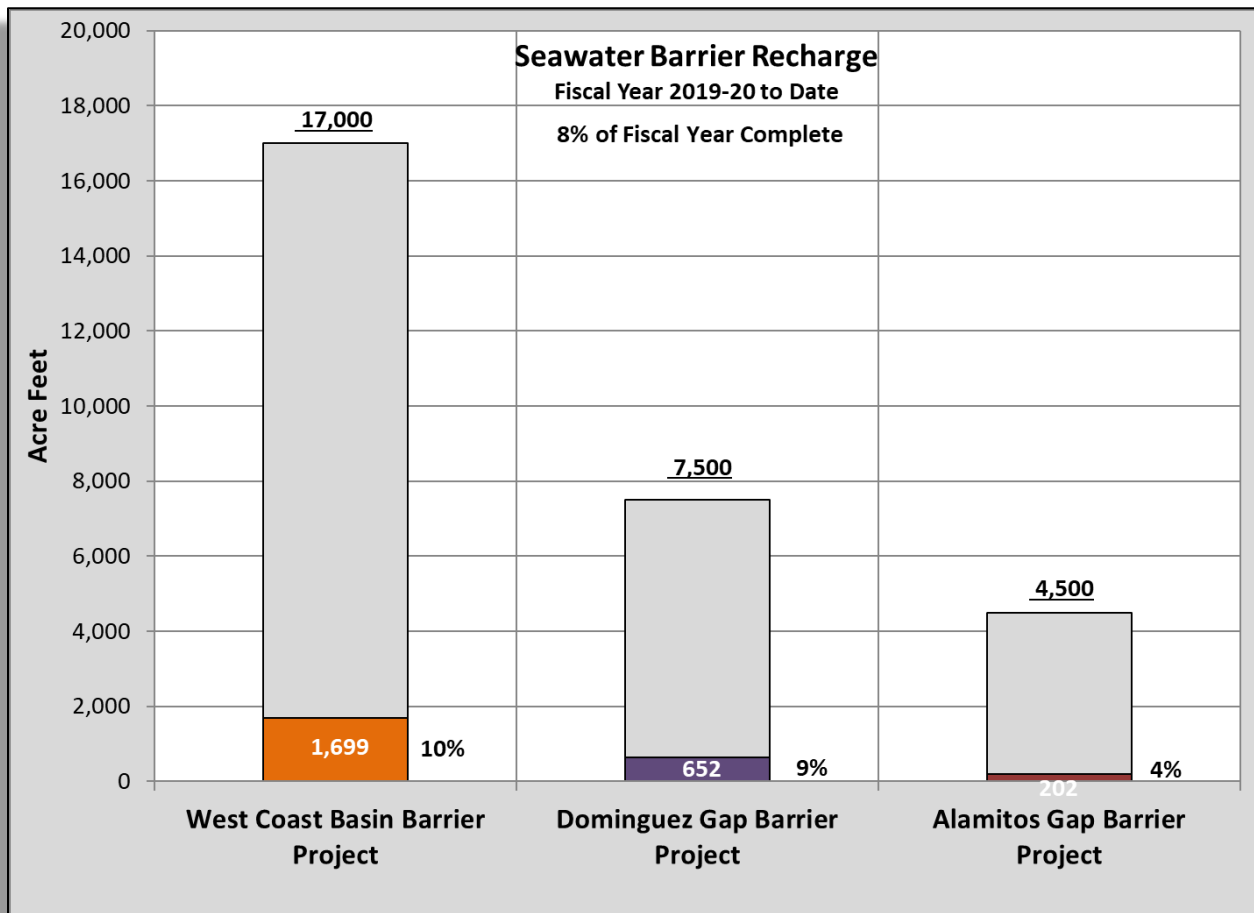
The Workplan will include:

- Recycled water contribution calculations reaching the Groundwater Replenishment Recharge Project (GRRP; i.e. Montebello Forebay Spreading Grounds)
- Discuss Pomona WRP discharges and quantify recharge at the GRRP
- Propose increasing RWC from 45% to 50%
- Compliance monitoring well location(s)
- Prepare a new figure that depicts cross-sections of wells and corresponding aquifers in the vicinity of the cross-sections presented in the previous Title 22 Engineering Report
- Request for and reduced in monitoring
- Crossover channel maps and related information
- Overview of methodology on chloride as intrinsic tracer
- Provide the approach for using spreading grounds headworks monitoring for surface flow diluent water
- Proposal of using the infiltration of precipitation as diluent water
- Selection of analytical methods based on wastewater and drinking water methods
- Provide summary of available NMOR, PFOS, and PFOA data

District staff has initiated the preparation of many of the items listed above pertaining to the District and will continue collaboration with the CSDLA on the joint items. Both entities are confident we can meet our internal schedule to submit the Workplan by the end of the year.

Seawater Barrier Well Injection and Replenishment (July 2019)

The following Chart shows the barrier water injection:

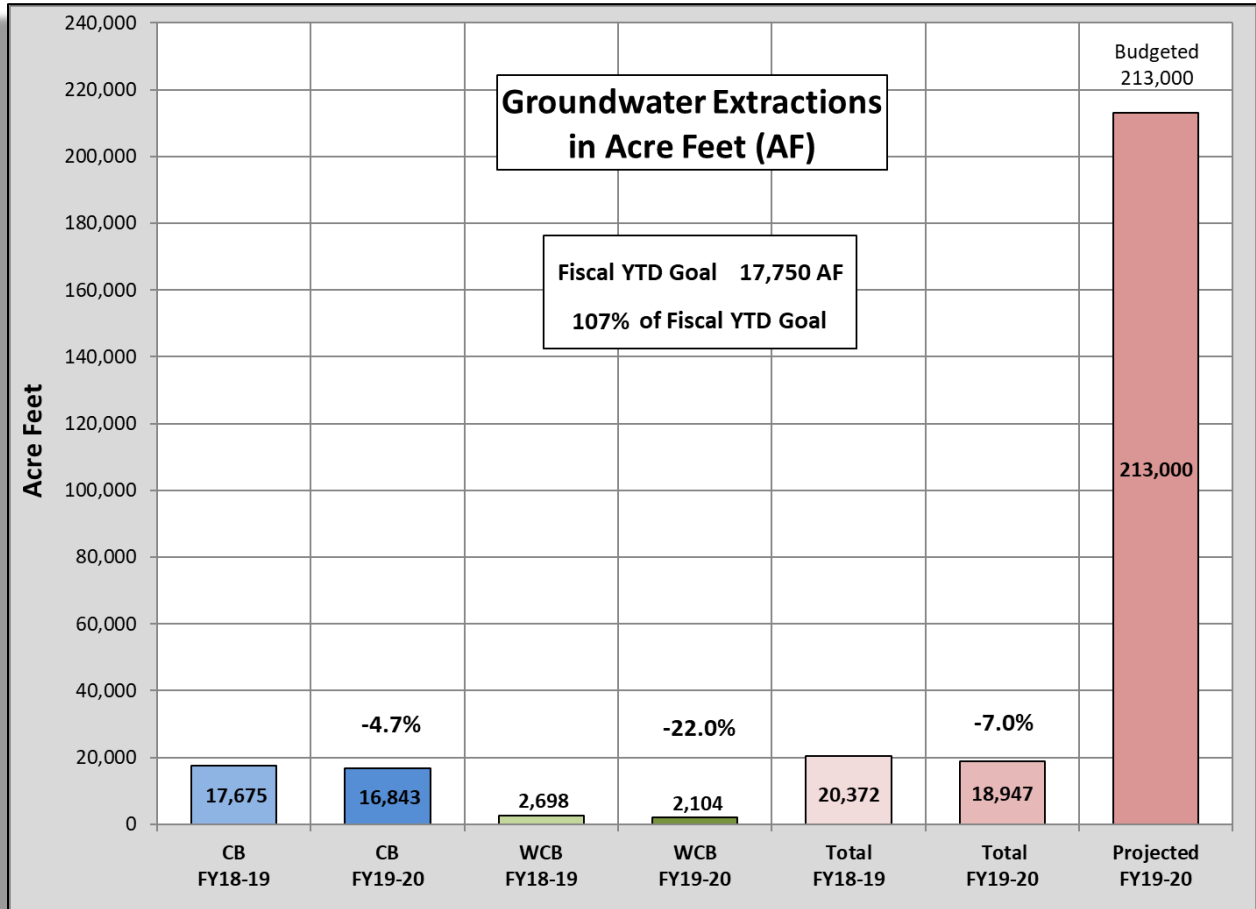


Preliminary numbers for the first month of the 2019-20 Fiscal Year show that the West Coast Barrier has used 1,699 acre-feet of the total 17,000 acre-feet planned for injection, 10% of total for the Water Year. The Dominguez Gap Barrier used 652 acre-feet of the total 7,500 acre-feet planned for injection, 9% of the total for the Water Year. The Alamitos Barrier, on the WRD side, used 202 acre-feet of the total 4,500 acre-feet planned for injection, 4% of the total for the Water Year.

Pumping (Fiscal Year July 2019)

Preliminary numbers for groundwater production in the District for the Fiscal Year 2019-20 (July 2019) indicate pumping in the Central Basin was down 831 acre-feet from the same time of the previous fiscal year (-4.7%) and the West Coast Basin pumping

was 593 acre-feet lower than the previous fiscal year (-22.0%). The total pumping is 18,947 acre-feet compared to 20,372 acre-feet during the same time the previous year for a decrease of 1,425 acre-feet, or -7.0%. The current pumping data do not include three Central Basin pumpers totaling an estimated 4 additional acre-feet.



Production Trends - Central Basin				
Top 5 Producing by Volume (AF)	July 2018 - July 2018	July 2019 - July 2019	Difference	% Change
Long Beach, City of	2215.1	2699.2	484.1	22%
Whittier, City of	320.8	534.9	214.1	67%
Paramount, City of	348.8	498.5	149.7	43%
Liberty Utilities Corporation	714.1	804.8	90.7	13%
Norwalk, City of	45.5	70.6	25.1	55%
Bottom 5 Producing by Volume (AF)	July 2018 - July 2018	July 2019 - July 2019	Difference	% Change
Golden State Water Company	2201.6	1842.2	-359.5	-16%
Lakewood, City of Water Department	925.5	680.0	-245.5	-27%
San Gabriel Valley Water Company	238.6	102.5	-136.1	-57%
Huntington Park, City of	392.1	265.7	-126.4	-32%
Vernon, City of	548.7	430.2	-118.6	-22%

Production Trends – West Coast Basin

Top 5 Producing by Volume (AF)	July 2018 - July 2018	July 2019 - July 2019	Difference	% Change
Inglewood, City of	111.7	299.2	187.5	168%
Torrance, City of	289.9	383.2	93.3	32%
Roman Catholic Archbishop of LA	41.1	69.1	28.0	68%
CA Water Service Co./Hawthorne Lease	60.2	73.8	13.6	23%
CA Water Service Company (Dominguez)	377.0	385.9	8.9	2%
Bottom 5 Producing by Volume (AF)	July 2018 - July 2018	July 2019 - July 2019	Difference	% Change
Golden State Water Company	691.0	6.9	-684.2	-99%
Tesoro Refining & Marketing Co., LLC	282.2	167.4	-114.9	-41%
Lomita, City of	56.8	0.2	-56.6	-100%
ConocoPhillips Company	483.6	462.5	-21.0	-4%
Rolling Hills Country Club	21.0	0.0	-21.0	-100%