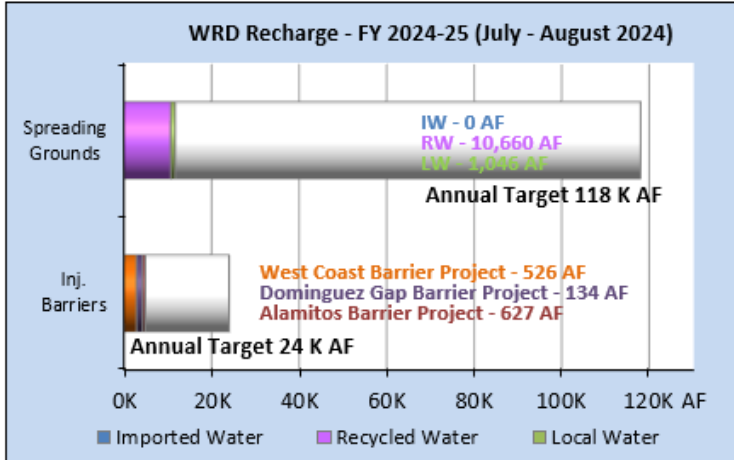


GROUNDWATER BASIN UPDATE FOR OCTOBER 2024

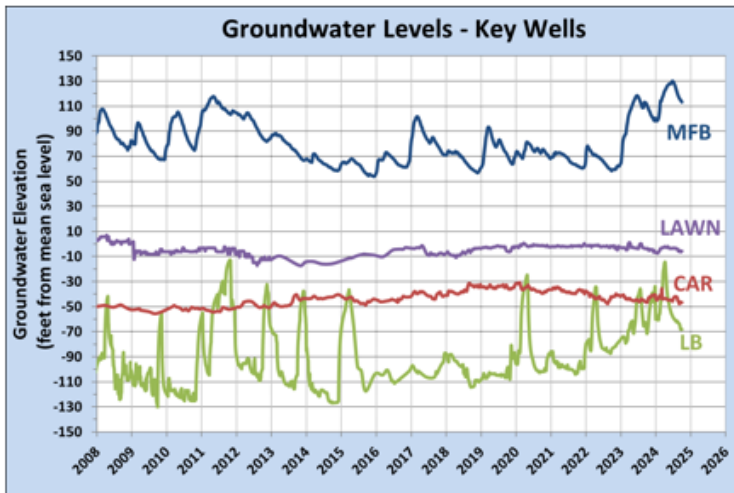
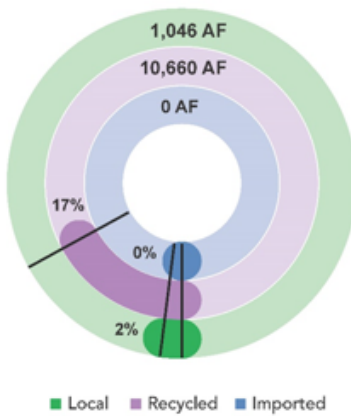
GROUNDWATER BASINS AT A GLANCE*



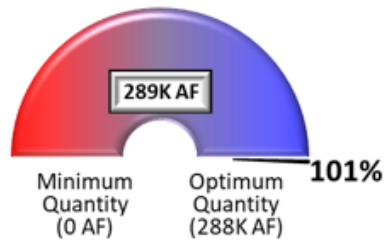
Precipitation % of Normal to Date
Oct 1, 2023 - Sep 30, 2024



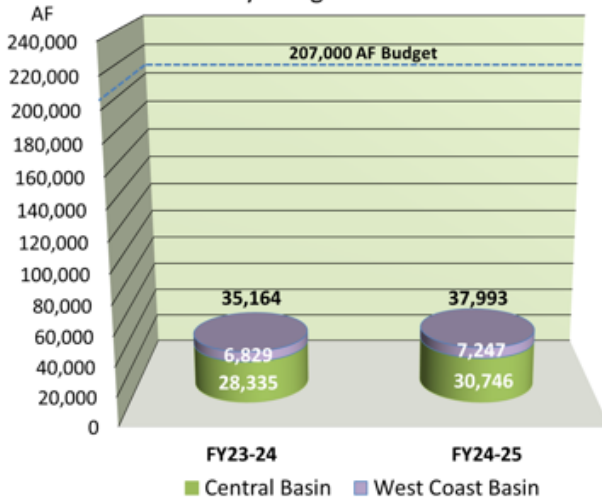
Spreading Grounds Recharge
Jul - Aug 2024



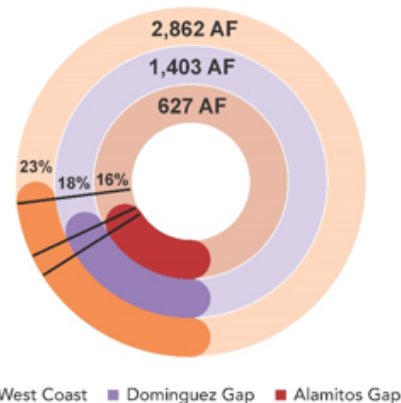
GW Basin Operating Range
October 3, 2024



Basin Pumping (Q)
July - August 2024



Seawater Barrier Recharge
Jul - Aug 2024



* - Preliminary numbers, subject to change.

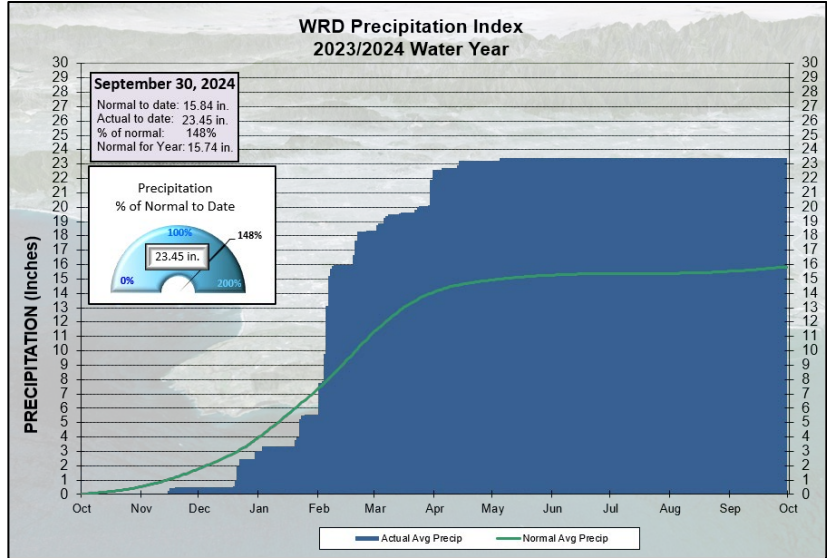
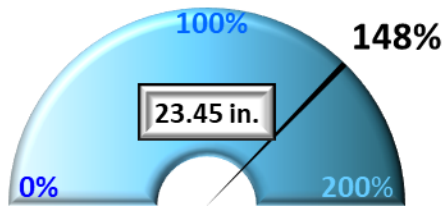
SUMMARY

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

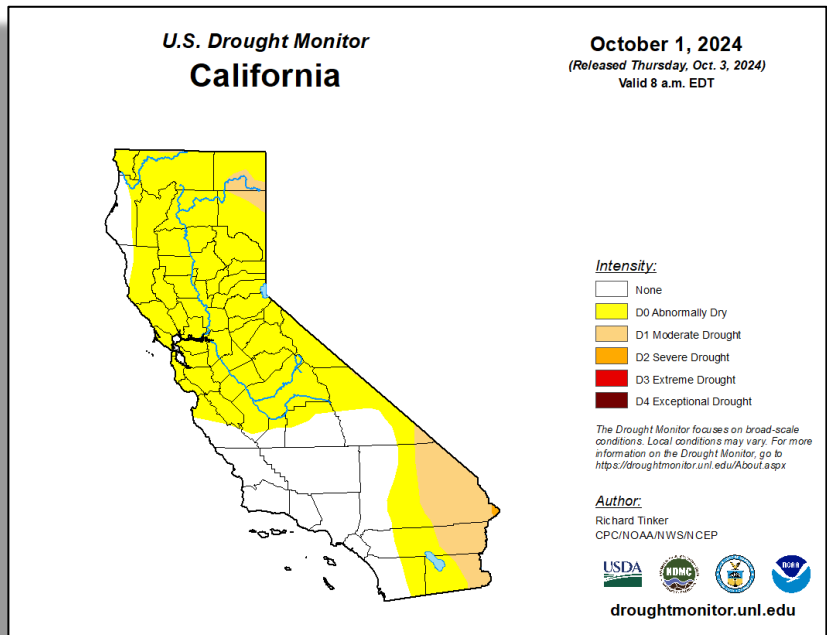
Precipitation (Water Year 2023-24)

The WRD precipitation index reports that for the 2023-24 Water Year, there has been above average rainfall (23.45 inches) through September 30, 2024. The normal rainfall for this time period is 15.84 inches, so the District is 148% of normal.

Precipitation % of Normal to Date
Oct 1, 2023 - Sep 30, 2024

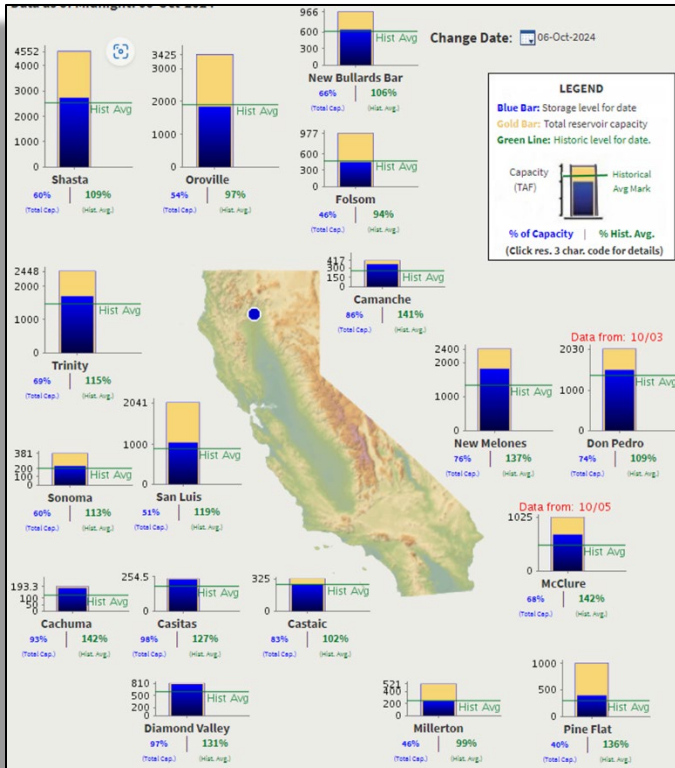


As of October 1, 2024, the U.S. Drought Monitor is reporting 72% of the State is abnormally dry (up 18%), 11% under moderate (up 3%), 0% under severe (same), 0% under extreme (same), and 0% exceptional (same) drought conditions. According to the U.S. Drought Monitor, Los Angeles County is currently not in a drought.



Reservoirs (as of October 6, 2024)

For the 21 reservoirs reported monthly to the committee, water levels have increased in 4 of 21 reservoirs. The largest increase occurred at San Luis Reservoir (0.07 million acre feet, MAF). The smallest increase occurred at Perris Lake and Lake Mead (<0.01 MAF). The largest decrease (-0.34 MAF) occurred at Lake Oroville. The smallest decrease (<-0.01 MAF) occurred at Pine Flat Reservoir and Lakes Cachuma, Casitas and Silverwood.



MWD Reservoirs (SWP) Storage in Million Acre Feet

Reservoir	Capacity	Storage	% Full	Change
Trinity Lake (CLE)	2.45	1.70	70%	-0.09
Lake Shasta (SHA)	4.55	2.74	60%	-0.19
Lake Oroville (ORO)	3.54	1.85	54%	-0.34
New Bullards Bar (BUL)	0.97	0.64	67%	-0.04
Folsom Lake (FOL)	0.98	0.45	46%	-0.04
Camanche Lake (CMN)	0.42	0.36	86%	-0.01
New Melones L. (NML)	2.40	1.82	76%	-0.03
Don Pedro Res (DNP)	2.03	1.51	74%	-0.08
Lake McClure (EXC)	1.02	0.69	68%	-0.05
Lake Sonoma (WRS)	0.38	0.23	60%	-0.01
San Luis Res (SNL)	2.04	1.03	51%	0.07
Millerton Lake (MIL)	0.52	0.24	46%	-0.02
Pine Flat Res. (PNF)	1.00	0.40	40%	0.00
Cachuma Lake (CCH)	0.19	0.18	93%	0.00
Castaic Lake (CAS)	0.33	0.27	83%	-0.02
Casitas Lake (CSI)	0.25	0.23	98%	0.00
Perris Lake (PRR)	0.13	0.10	79%	0.00
L. Silverwood (SLW)	0.08	0.07	89%	0.00

MWD Reservoirs (CRA) Storage in Million Acre Feet

Reservoir	Capacity	Storage	% Full	Change
Lake Powell	23.31	9.15	39%	-0.16
Lake Mead	26.12	8.71	33%	0.00
Diamond Valley L (DVL)	0.81	0.79	97%	0.01

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

These 21 reservoirs are at 45% capacity (33.17 MAF) which is down 0.99 MAF (-1.4%) from the prior month (-0.84 MAF State Water Project [SWP] and -0.15 MAF Colorado River Aqueduct [CRA]).

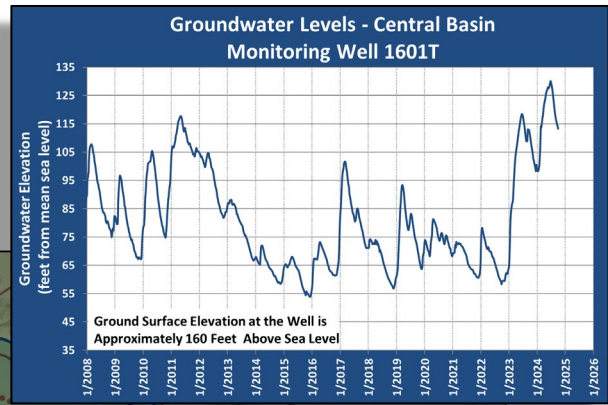
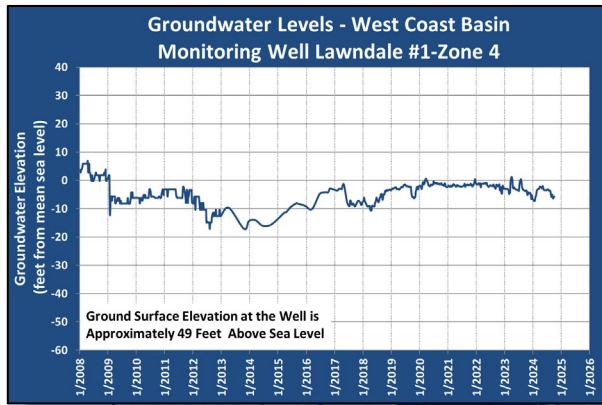


Did you know?

Imagine all the water discharged into the Gulf of Mexico by the Mississippi River in the past 200 years - that's about 33,000 trillion gallons, which is about the same amount as the groundwater reserves in the U.S.

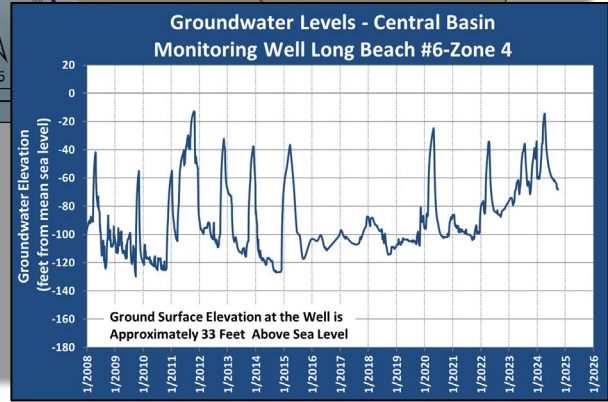
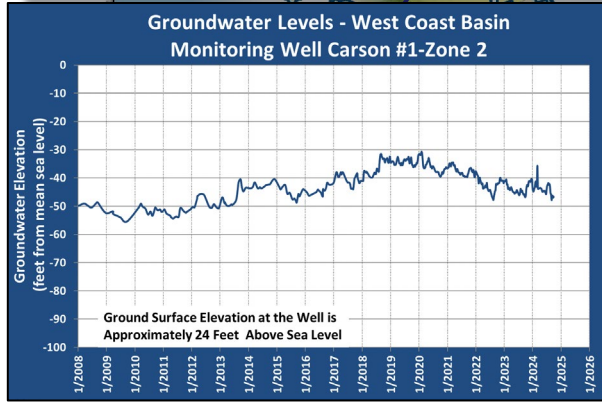
Groundwater Levels (through October 3, 2024)

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 patterns and barrier recharge.

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 3.1 feet	Increased 2.3 feet
Central Basin Key Well Long Beach #6 4	Decreased 4.5 feet	Increased 3.3 feet
West Coast Basin Key Well Lawndale #1 4	Decreased 0.7 foot	Decreased 2.1 feet
West Coast Basin Key Well Carson #1 2	Increased 1.2 feet	Increased 0.1 foot

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

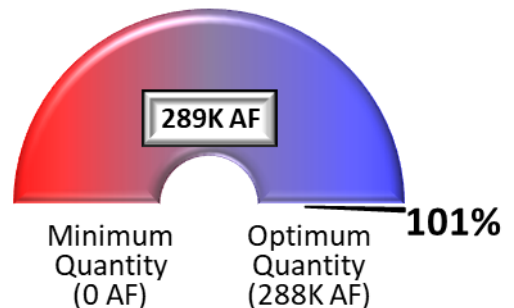
Optimum and Minimum Groundwater Quantity (October 3, 2024)

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 3, 2024, has been estimated at 610,534 acre feet (subject to change), which is 289,466 acre feet above the Minimum Quantity and 1,466 acre feet above Optimum Quantity. The Basin is at 101% of Optimum Quantity which is 2% lower than what was reported last month (~9,000 AF lower).

GW Basin Operating Range
October 3, 2024

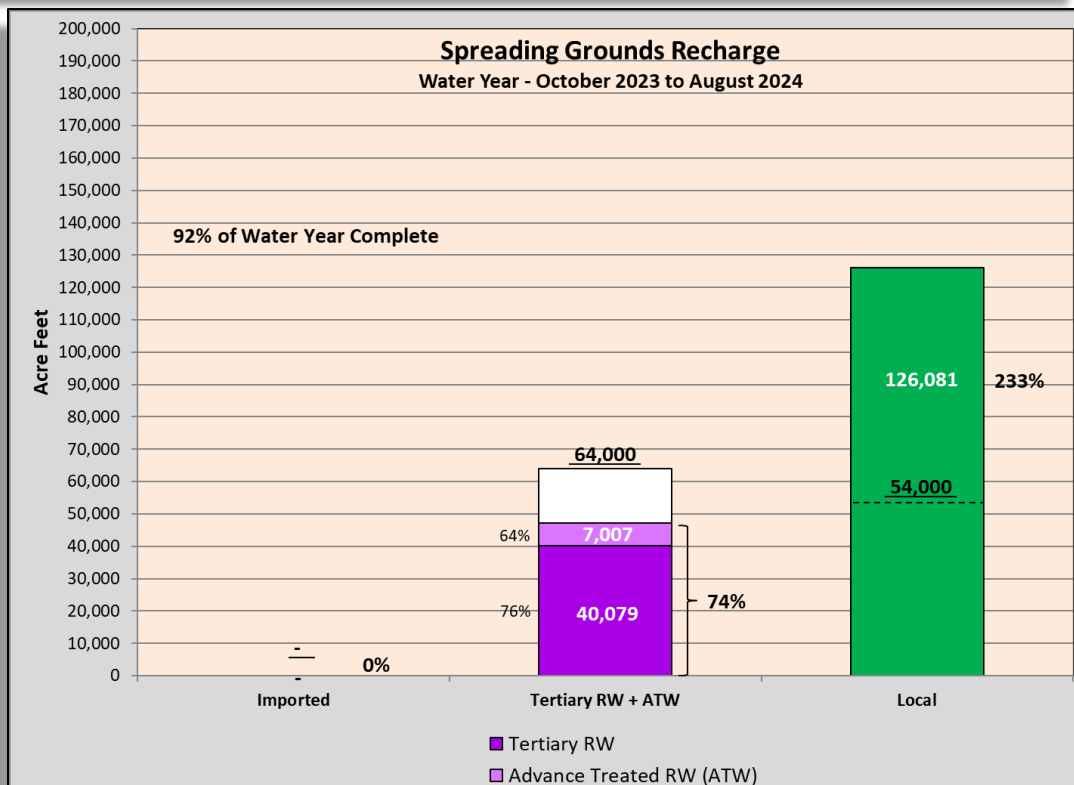
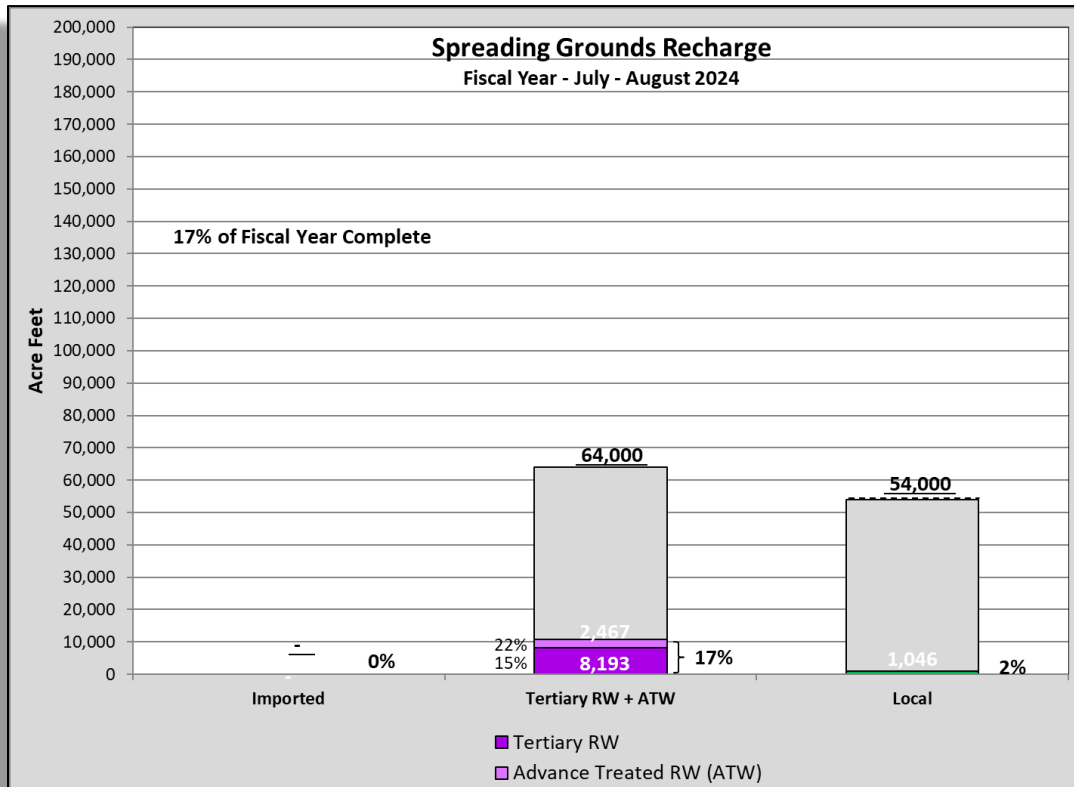


FACT:
A person can live about a month without food, but only about a week without water.



Montebello Forebay Spreading Grounds (July - August 2024)

The following Charts shows the preliminary spreading grounds replenishment water for the current Fiscal Year (2024-25; 2 months) and Water Year (2023-24; 11 months):



No imported water purchases were planned for Fiscal Year 2024-25.

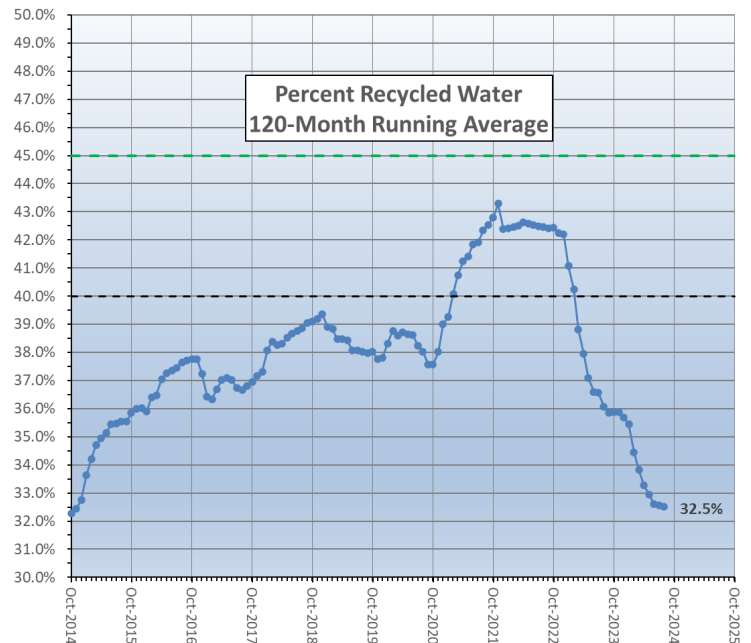
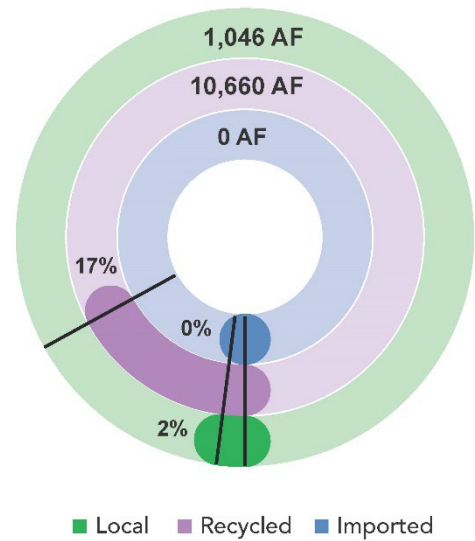
Local water (stormwater plus dry weather urban runoff) is captured by the Los Angeles County Department of Public Works (LACPW) at the spreading grounds for recharge. Local water amounts are determined as the sum of the total water conserved at the spreading grounds less the imported and recycled water deliveries. For the 2024-25 Fiscal Year, 1,046 acre feet of local water capture have been reported by the LACPW.

Preliminary numbers for the 2024-25 Fiscal Year show that approximately 10,660 acre feet of recycled water has been recharged with 2,467 acre feet consisting of advanced treat water from the ARC AWTF and 8,193 acre feet of tertiary recycled water. Presuming the advanced treated water as “Null Water”, the 120-month running average of the recycled water contribution in the Montebello Forebay is 32.5% and the regulatory maximum is 45%, with additional monitoring being required once 40% is reached.

Tertiary Recycle Water Permit Update

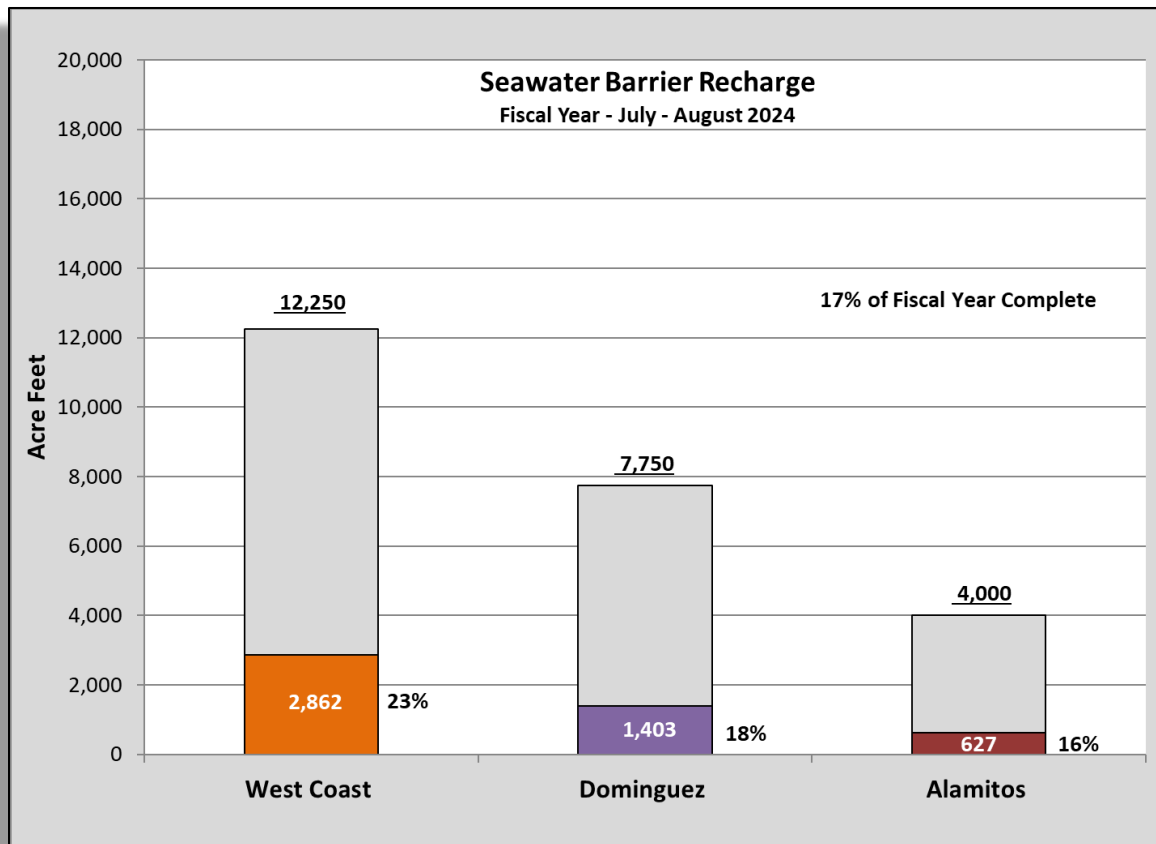
The permit is continuing to progress with LACSD and WRD staff working to update pertinent sections of the new Title 22 Engineering Report. Due to the persistent drought conditions over the past few decades and associated emergency drought proclamation by Governor Newsom, LACSD and WRD submitted a request to modify the recycled water contribution percentage to 50% and the advanced treated water classification to diluent in a letter to the LARWQCB and CA-DDW dated July 8, 2022. LACSD and WRD staff are targeting 2024 to have the new Title 22 Engineering Report submitted, including the requests to increase the recycled water contribution percentage to 50% and reclassify the advanced treated water as diluent.

Spreading Grounds Recharge
Jul - Aug 2024



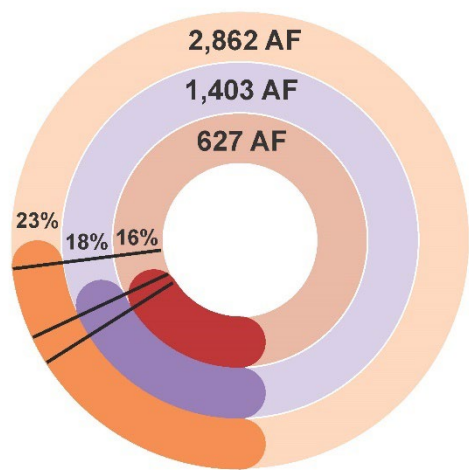
Seawater Barrier Well Injection and Replenishment (July - August 2024)

The following Chart shows the barrier water injection:



Preliminary numbers for the 2024-25 Fiscal Year show that the West Coast Barrier has used 2,862 acre feet of the total 12,250 acre feet planned for injection, 23% of total for the Fiscal Year. The Dominguez Gap Barrier used 1,403 acre feet of the total 7,750 acre feet planned for injection, 18% of the total for the Fiscal Year. The Alamitos Gap Barrier, on the WRD side, used 627 acre feet of the total 4,000 acre feet planned for injection, 16% of the total for the Fiscal Year. Advanced Treated Recycled Water (ATW) usage at the three barriers for the start of the Fiscal Year is 50% at the West Coast Barrier (+4), 81% at the Dominguez Gap Barrier (+1%), and 82% Alamitos Gap Barrier (+1). The combined ATW usage at all three barriers is 63% (+3%).

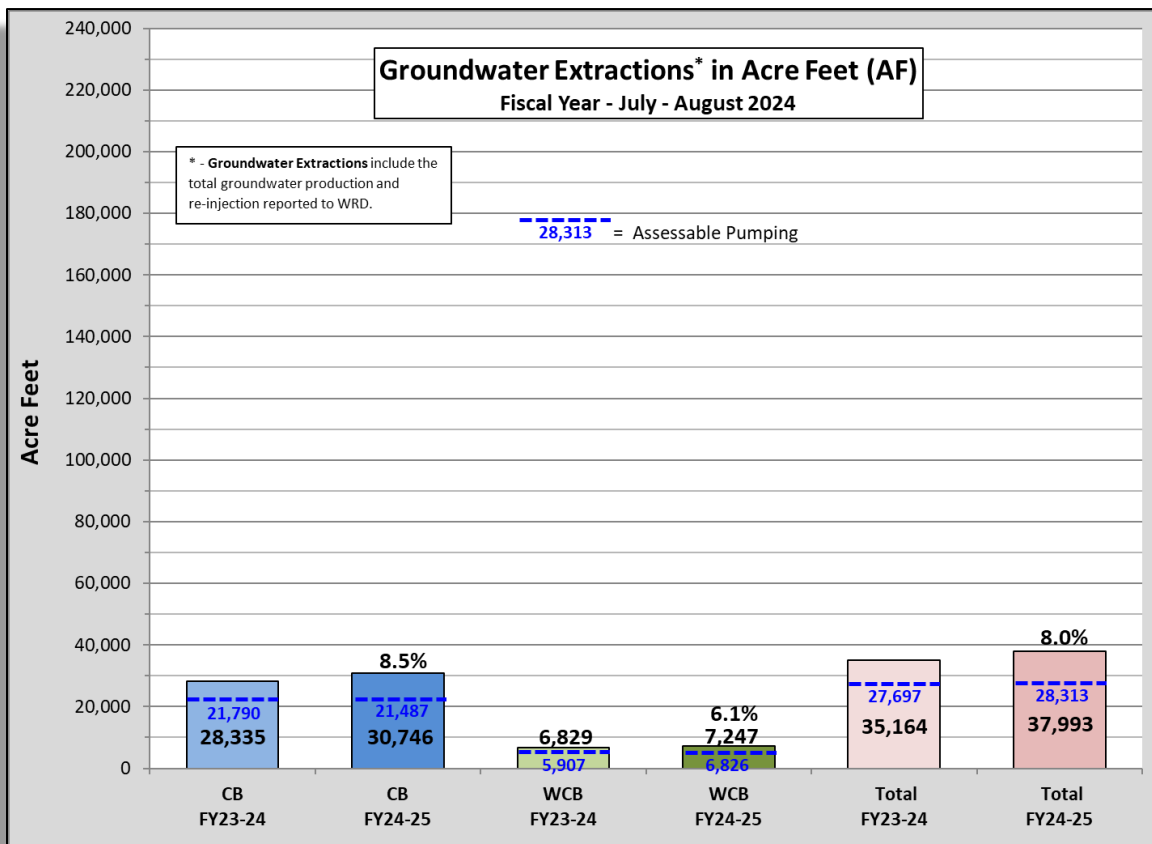
Seawater Barrier Recharge
Jul - Aug 2024



■ West Coast ■ Dominguez Gap ■ Alamitos Gap

Total Pumping (Fiscal Year 2024-25, July - August 2024)

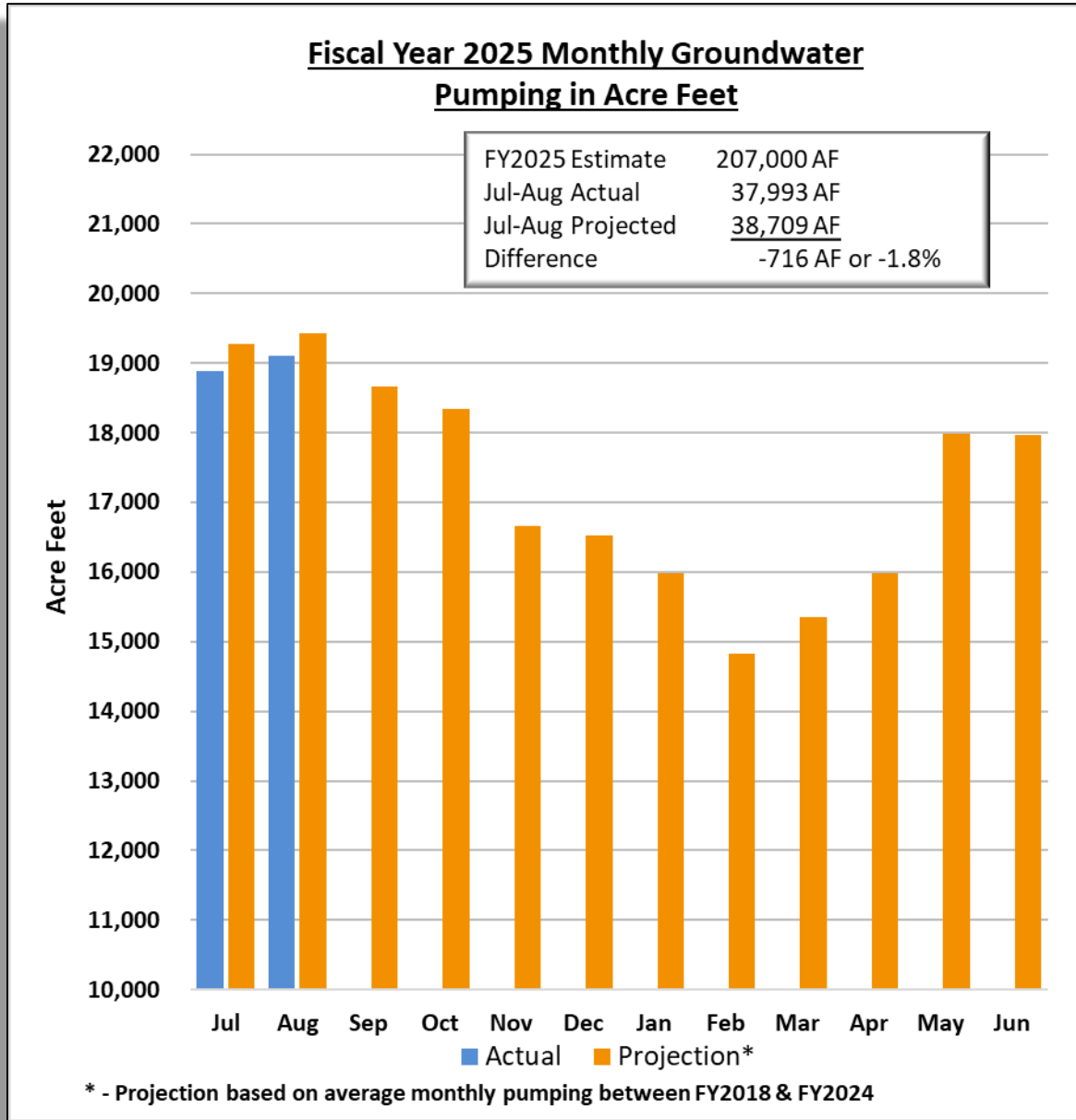
Preliminary numbers for groundwater production in the District for the Fiscal Year 2024-25 (July-August) indicate total pumping in the Central Basin was up 2,412 acre feet from the same time of the previous fiscal year (+8.5%) and the West Coast Basin total pumping was 417 acre feet higher than the previous fiscal year (+6.1%). The total pumping is 37,993 acre feet compared to 35,164 acre feet during the same time the previous year for an increase of 2,829 acre feet, or +8.0%. The current pumping data does not include two (2) Central Basin pumpers and three (3) West Coast Basin pumper, who have not yet reported, for an estimated 40 additional acre feet.



Interesting...

The average cost for water supplied to a home in California is about \$6.30 for 1,000 gallons, which equals about 8 gallons for a nickel.

Preliminary numbers indicate 37,993 acre feet of groundwater have been pumped this fiscal year and is 1.8% below the projected fiscal year to date goal of 38,709 acre feet (or -716 acre feet). Monthly actual production versus the 7-year average monthly production projections (FY 2018 through 2024) are included in the chart below.



"One day of rain far surpasses a whole year of drought." - Malawian Proverb



For the Fiscal Year 2024-25 (July-August 2024), 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 data for all the pumpers can be found in the attached Exhibit A (Central Basin) and Exhibit B (West Coast Basin).

Production Trends - Central Basin				
Top 5 Producing <u>by Volume</u> (AF)	Jul-Aug 2023	Jul-Aug 2024	Difference	% Change
Long Beach, City - CB	3,548.96	5,476.32	1927.36	35.19
Santa Fe Springs, City	13.70	510.73	497.03	97.32
Suburban Water Systems	202.67	480.20	277.53	57.79
South Gate, City	1,415.13	1,512.98	97.85	6.47
Cal. Water Service Co. (East LA)	1,800.18	1,884.74	84.56	4.49
Bottom 5 Producing <u>by Volume</u> (AF)	Jul-Aug 2023	Jul-Aug 2024	Difference	% Change
Pico Rivera, City	798.49	412.28	-386.21	-93.68
Whittier, City	1,259.30	973.82	-285.48	-29.32
Cal. American Water Co. Alpha 0679	392.83	322.86	-69.97	-21.67
Lakewood - City	1,322.92	1,266.81	-56.11	-4.43
Vernon, City	862.46	808.70	-53.76	-6.65

Production Trends – West Coast Basin				
Top 5 Producing <u>by Volume</u> (AF)	Jul-Aug 2023	Jul-Aug 2024	Difference	% Change
Torrance, City	0.00	849.77	849.77	100.00
Golden State Water Co. - WB	1,284.98	1,858.57	573.59	30.86
Phillips 66 Co. - Alpha 7093	833.18	981.93	148.75	15.15
L.A. County Department of Parks	0.00	91.35	91.35	100.00
Rolling Hills Country Club	54.00	125.00	71.00	56.80
Bottom 5 Producing <u>by Volume</u> (AF)	Jul-Aug 2023	Jul-Aug 2024	Difference	% Change
Tesoro Refining	1,728.79	1,280.97	-447.82	-34.96
Cal. Water Service Co./Hawthorne Lease	169.85	0.95	-168.90	-17,778.9
Cal. Water Service Co. Dominguez - WB	1,013.07	920.49	-92.58	-10.06
Inglewood, City	320.39	271.71	-48.68	-17.92
Manhattan Beach, City	46.13	23.75	-22.38	-94.23

Water Replenishment District (WRD) publishes the Groundwater Basin Update (GWBU) monthly. All information contained herein is preliminary and is meant to be a snapshot the status of the basins at the time of publication and should not constitute an official WRD report. All the information presented in the GWBU utilizes the best available data at the time of publication. Data provided herein is a compilation of WRD data and publicly available information from several of our partners including, by not limited to, the Los Angeles County Department of Public Works - Stormwater Engineering Division, Metropolitan Water District of Southern California, California Department of Water Resources, US Bureau of Reclamation, University of Nebraska - Lincoln, and the US Department of Agriculture - Natural Resources Conservation Service. The GWBU is prepared by Senior Hydrogeologist, Everett Ferguson, who can be contacted directly with questions at eferguson@wrd.org.

Central Basin Production Trends

Central Basin	July 2023 - August 2023	July 2024 - August 2024	Difference	%Change
ABC USD	5.26	0.82	-4.44	-541.46
American Text. M.	10.86	11.68	.82	7.02
Artesia, City	0.59	0.55	-.04	-7.27
Atlas Iron and Metal Co.	0.00	0.00	.00	0.00
Bell Gardens, City	0.00	0.00	.00	0.00
Bellflower Home Garden	0.00	0.00	.00	0.00
Bellflower-Somerset MWC	878.29	916.42	38.13	4.16
Boeing Co.	0.00	0.00	.00	0.00
Boeing, Compton Site	0.00	0.00	.00	0.00
Cal. American Water Co. Alpha 0679	392.83	322.86	-69.97	-21.67
Cal. Water Service Co. (East LA)	1,800.18	1,884.74	84.56	4.49
Cal. Water Service Co. Dominguez - CB	115.82	198.67	82.85	41.70
Caltrans	6.82	0.95	-5.87	-617.89
Central Basin MWD	0.00	0.00	.00	0.00
Cerritos, City	1,397.64	1,467.26	69.62	4.74
Coast Packing Co.	20.52	22.11	1.59	7.19
Commerce, City	287.12	308.87	21.75	7.04
Compton, City	1,289.10	1,284.26	-4.84	-0.38
Darling-Delaware Co.	0.00	0.00	.00	0.00
Defense Logistic Agency	0.00	0.00	.00	0.00
Demunno Kerdoon	0.00	0.00	.00	0.00
Downey, City	2,605.62	2,594.86	-10.76	-0.41
El Rancho Unified School District	0.00	0.00	.00	0.00
Golden State Water Co. - CB	3,165.01	3,187.63	22.62	0.71
HMB Bandini, LLC	0.00	0.06	.06	100.00

Central Basin	July 2023 - August 2023	July 2024 - August 2024	Difference	%Change
Huntington Park, City - Alpha 2378	484.92	490.38	5.46	1.11
L.A. County Department of Parks	0.00	0.00	.00	0.00
LA County Rancho Los Amigos	47.29	46.22	-1.07	-2.32
La Habra Heights County WD	531.20	564.16	32.96	5.84
Lakewood - City	1,322.92	1,266.81	-56.11	-4.43
Liberty Utilities - CB	804.74	773.78	-30.96	-4.00
Little Lake Cemetery District	0.00	0.00	.00	0.00
Long Beach, City - CB	3,548.96	5,476.32	1927.36	35.19
Los Angeles, City - CB	2.97	3.29	.32	9.73
Lunday-Thagard	0.00	0.00	.00	0.00
Lynwood Park Mutual Water Co.	3.15	6.50	3.35	51.54
Lynwood, City	857.98	883.39	25.41	2.88
Maywood Mutual No. 1	114.43	116.56	2.13	1.83
Maywood Mutual No. 2	168.92	166.78	-2.14	-1.28
Maywood Mutual No. 3	262.07	257.52	-4.55	-1.77
Montebello Land and Water Co.	545.05	562.40	17.35	3.08
Newark Group, Inc.	26.35	20.98	-5.37	-25.60
Norwalk, City	69.88	73.67	3.79	5.14
Omega OU1/OU3 LLC	0.00	0.00	.00	0.00
Orchard Dale Water District	353.78	375.43	21.65	5.77
PABCO Building Products	0.00	0.00	.00	0.00
Paradise Memorial Park	3.20	1.03	-2.17	-210.68
Paramount USD	0.32	0.16	-.16	-100.00
Paramount, City	480.76	477.03	-3.73	-0.78
Pico Rivera, City	798.49	412.28	-386.21	-93.68
Pico Water District	506.48	495.61	-10.87	-2.19
Rockview Dairies	0.00	28.56	28.56	100.00
Roman Catholic Archbishop - CB	57.63	78.20	20.57	26.30

Central Basin	July 2023 - August 2023	July 2024 - August 2024	Difference	%Change
Rowland Water District	0.00	0.00	.00	0.00
San Gabriel Valley Water Co.	558.66	598.02	39.36	6.58
Santa Fe Springs, City	13.70	510.73	497.03	97.32
Scantlebury, Robert P.	0.00	0.00	.00	0.00
SFPP L.P.	0.00	0.00	.00	0.00
Signal Hill, City	132.84	136.90	4.06	2.97
South Gate, City	1,415.13	1,512.98	97.85	6.47
South Montebello Irrigation Dist	304.05	318.97	14.92	4.68
Southern California Edison Co. - CB	0.47	0.00	-.47	-100.00
St. John Bosco School	0.00	4.10	4.10	100.00
Suburban Water Systems	202.67	480.20	277.53	57.79
Tract 180 Water Co.	219.97	221.03	1.06	0.48
Tract 349 Mutual Water Co.	107.73	116.17	8.44	7.27
Tucker, William M.	0.02	0.00	-.02	-100.00
Vernon, City	862.46	808.70	-53.76	-6.65
Virginia Country Club	87.57	85.10	-2.47	-2.90
Walnut Park Mutual	194.74	194.27	-.47	-0.24
Whittier Union HSD	8.22	6.70	-1.52	-22.69
Whittier, City	1,259.30	973.82	-285.48	-29.32
WRD	0.00	0.00	.00	0.00
Yamamoto, Alice	0.00	0.00	.00	0.00

West Coast Basin Production Trends

West Basin	July 2023 - August 2023	July 2024 - August 2024	Difference	%Change
ABC Nursery	2.00	0.00	-2.00	-100.00
Cal. Water Service Co. Alpha 7050	178.81	185.49	6.68	3.60
Cal. Water Service Co. Dominguez - WB	1,013.07	920.49	-92.58	-10.06
Cal. Water Service Co./Hawthorne Lease	169.85	0.95	-168.90	-17,778.95
Eco Services Operations	36.04	27.56	-8.48	-30.77
Golden State Water Co. - WB	1,284.98	1,858.57	573.59	30.86
Hillside Memorial Park	24.10	34.51	10.41	30.17
Honeywell International	0.00	0.00	.00	0.00
Inglewood, City	320.39	271.71	-48.68	-17.92
Kinder Morgan Liquids Terminals	7.83	6.19	-1.64	-26.49
L.A. County Department of Parks	0.00	91.35	91.35	100.00
L.A. County Sanitation Districts-JWPCP	0.00	0.00	.00	0.00
Lomita, City	0.00	0.00	.00	0.00
Long Beach, City - WB	0.00	0.00	.00	0.00
Manhattan Beach, City	46.13	23.75	-22.38	-94.23
Montrose Chemical Corp.	0.00	0.00	.00	0.00
Myron Z. Chalavin	0.00	0.00	.00	0.00
Phillips 66 Co. - Alpha 7093	833.18	981.93	148.75	15.15
Rolling Hills Country Club	54.00	125.00	71.00	56.80
Roman Catholic Archbishop - WB	62.71	54.66	-8.05	-14.73
SCI Funeral Services	9.78	10.27	.49	4.77
Shell Oil Co NCWUP	16.95	0.00	-16.95	-100.00
Southern California Edison Co. - WB	5.60	2.21	-3.39	-153.39
Tesoro Refining	1,728.79	1,280.97	-447.82	-34.96
Torrance Refining	199.34	189.43	-9.91	-5.23

West Basin	July 2023 - August 2023	July 2024 - August 2024	Difference	%Change
Torrance, City	0.00	849.77	849.77	100.00
West Basin Brewer Desalter	0.00	0.00	.00	0.00