



Helix Water District

Water Supply Reliability Certification Supporting Analysis and Calculations

Background

On May 9, 2016, Governor Brown issued Executive Order B-37-16 which extended the emergency drought regulations through January 31, 2017. As part of the order, the State Water Resources Control Board adopted a localized self-certification approach that replaces the prior state imposed mandatory conservation standard. This new approach mandates each retail agency, or a region as a whole, to conduct a “stress test,” certifying whether they have sufficient available supplies to meet customer demand assuming dry conditions continue for an additional three years.

On June 9, 2016, retail water suppliers in San Diego County, including Helix Water District, voted to self-certify as a region. The region’s wholesaler, the San Diego County Water Authority, coordinated the signed agreement between all member retail agencies.

The State Water Resources Control Board’s supply sufficiency calculation is based on a series of conservative assumptions for 2017, 2018 and 2019. Under their methodology, a region must project available supplies assuming three additional years of drought that duplicate the hydrology that occurred in 2013, 2014 and 2015. Demand projections for the same three year period are based on supplier’s average potable water demand in 2013 and 2014. If the projected water suppliers meet or exceed the demand at the end of 2019, the water conservation standard is set at zero for the period of June 2016 through January 2017. If demand exceeds available water supplies, the conservation standard is equivalent to the percentage of the water supply deficit.

Calculation

The State Water Resources Control Board’s supply sufficiency calculation for the San Diego region’s service area, under the San Diego County Water Authority, is shown in the formula below:

$$\begin{array}{ccccccc} \text{Member} & & \text{Water} & & \text{Member} & & \text{Water} & & & & \\ \text{Agency} & & \text{Authority} & & \text{Agency} & & \text{Authority} & & \text{Stored} & & \text{Supply} \\ \text{Potable} & - (& \text{Available} & + & \text{Local} & + & \text{Water} &) = & & & \text{Adequacy} \\ \text{Water Use} & & \text{Supplies} & & \text{Supplies} & & \text{Water} & & & & \end{array}$$

The calculation is used to show that the San Diego County Water Authority’s supplies, when combined with member agency local supplies and supplemented by the San Diego County Water Authority’s stored water, are sufficient to meet demand under the State Water Resource Control Board’s methodology. This results in a zero conservation standard for the San Diego region, including Helix Water District, for the period of June 2016 through January 2017.

A breakdown of the regional supply sufficiency calculations for 2017, 2018 and 2018 can be found on the San Diego County Water Authority’s website.

[2017 Regional Supply Sufficiency Calculation](#)

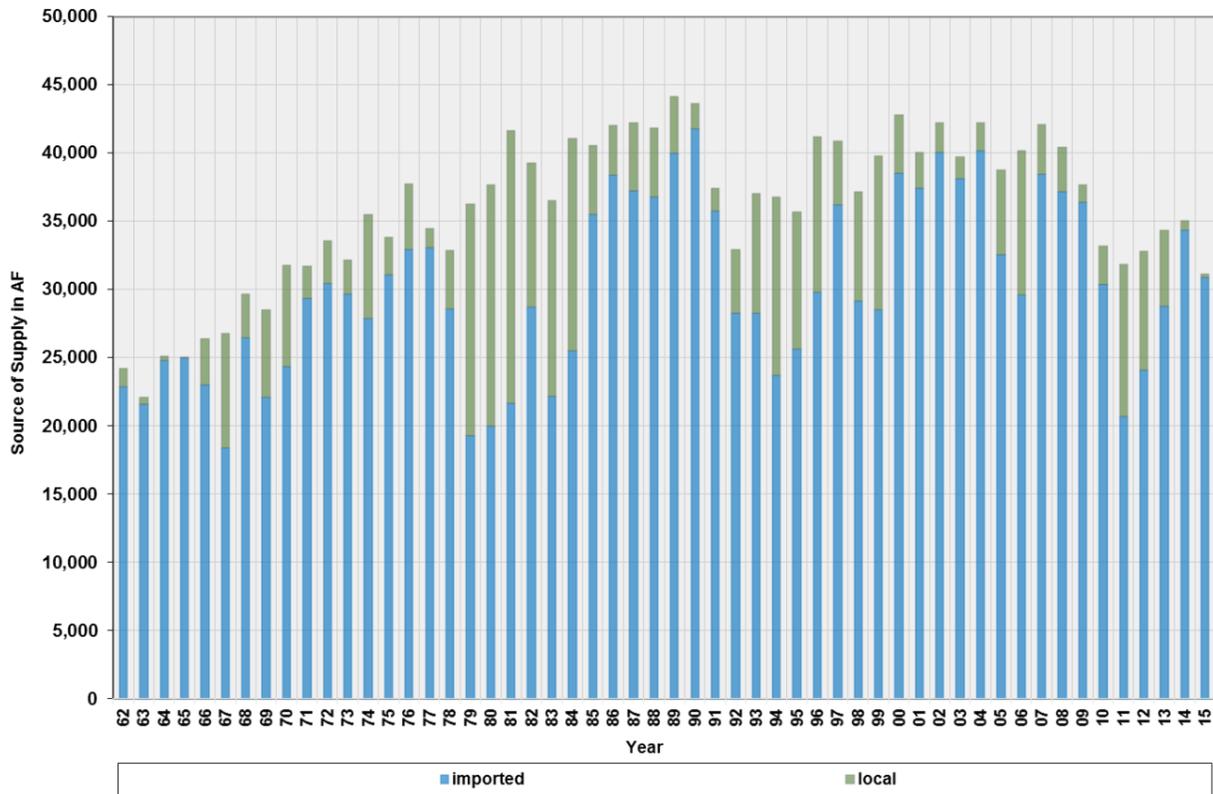
[2018 Regional Supply Sufficiency Calculation](#)

[2019 Regional Supply Sufficiency Calculation](#)

Supporting Analysis of Supply

Helix Water District’s water sources are a combination of imported and locally sourced water. Imported water is purchased through the San Diego County Water Authority, the wholesaler for the San Diego region, and during an average year account for 83 percent of the district’s supply. Local supplies are a combination of surface water and local groundwater and are highly variable due to changing weather conditions each year; periods of below normal local supply are supplemented with higher use of imported supply.

District Source of Supply (Import vs. Local)



As a result, the district primarily relies on imported water and continues to support and invest in regional demand and supply management programs coordinated by the San Diego County Water Authority, such as supply reliability, diversification projects, drought management and emergency storage.

San Diego County’s regional supply sufficiency calculation combines water supplies available through the San Diego County Water Authority, both imported and stored, with its member agencies local supplies. A detailed analysis and documentation of the regional water supplies used in the regional supply sufficiency calculations is available on the San Diego County Water Authority’s website under [Regional Supply Sufficiency – May 2016 Emergency Regulations](#).

Worksheet 1 – Available Local Supply

Helix Water District’s local supplies are included in the regional supply sufficiency calculation submitted by the San Diego County Water Authority under member agency local supplies and are comprised of both local runoff capture and local surface water. Local supplies for the district are projected to be 348 acre-feet each year during 2017, 2018 and 2019.

When completing Worksheet 1, the district listed its local runoff capture from the El Capitan and Lake Jennings watersheds as surface water. The district's Well 101 is listed as local groundwater. Local runoff for 2017, 2018 and 2019 is projected to be 267.3 acre-feet each year and local groundwater is projected at 80.8 acre-feet each year, for a total of 348.1 acre-feet. This is based on the actual local runoff and groundwater received by the district in 2013, which was the lowest amount recorded during the years 2013 through 2015. This is a more conservative estimate than required by the State Water Resources Control Board. Detailed use and storage summaries for each of these sources for calendar years 2013, 2014 and 2015 are below.

USE & STORAGE SUMMARY

	December-13													Totals
	12/13	11/13	10/13	9/13	8/13	7/13	6/13	5/13	4/13	3/13	2/13	1/13		
EL CAPITAN														
IN - CUYAMACA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LOCAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.97	73.30	251.04	167.05	108.62	624.99	0.00
CWA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LOSS - LOCAL	0.55	0.95	17.64	23.22	22.99	23.99	25.29	20.35	17.35	6.35	7.18	8.58	152.25	0.00
CWA	0.13	0.16	0.28	0.38	0.38	0.38	0.40	0.32	0.28	0.17	0.14	0.14	3.12	0.00
USE - LOCAL	0.00	0.00	0.00	0.00	0.00	251.80	0.00	0.00	0.00	0.00	0.00	0.00	251.80	3.94
CWA	0.00	0.00	0.00	0.00	0.00	3.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KITZMAN TRANSFER	0.00	2.74	0.00	2.48	0.00	2.25	0.00	2.14	0.00	2.79	2.28	0.00	14.88	0.00
CWA TRANSFER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CWA PUMPED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STORAGE - LOCAL	1,879.87	1,888.42	1,901.11	1,918.75	1,944.45	1,967.14	2,245.19	2,270.49	2,268.00	2,212.08	1,973.16	1,815.57	24,284.21	395.42
CWA	20.50	29.64	29.79	30.07	30.43	30.79	35.10	35.50	36.82	36.10	36.27	36.42	395.42	0.00
TOTAL	1,900.37	1,918.05	1,930.90	1,948.82	1,974.88	1,997.93	2,280.29	2,305.98	2,303.82	2,248.16	2,009.44	1,851.98	24,679.63	0.00
CUYAMACA														
IN	0.00	0.54	0.47	0.00	0.00	0.00	0.00	0.00	0.00	97.11	61.57	39.76	217.45	0.00
LOSS	0.54	0.00	0.00	28.82	39.02	60.38	84.21	32.90	11.10	0.00	0.00	0.00	265.77	0.00
RELEASE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STORAGE	597.58	607.12	597.58	588.11	616.73	655.75	716.13	800.34	833.24	844.34	747.23	685.66	8,285.81	0.00
LAKE JENNINGS														
IN - LOCAL	83.44	12.52	25.77	0.00	0.00	0.78	0.00	11.05	0.56	20.17	91.17	42.74	288.20	0.00
CWA	851.88	1,442.82	110.64	193.89	240.31	100.07	167.19	122.91	121.64	102.64	56.40	43.76	3,552.53	0.00
LOSS - LOCAL	2.28	2.81	3.94	8.17	6.82	6.85	10.41	5.07	5.54	4.33	2.83	2.19	60.84	0.00
CWA	20.90	28.27	43.65	89.22	59.15	70.56	105.19	51.11	55.00	40.82	31.68	28.07	642.68	0.00
USE - LOCAL	11.53	101.09	0.34	10.99	11.42	105.25	0.00	2.51	0.00	0.00	13.16	0.00	256.23	0.00
CWA	150.64	1,065.18	3.73	118.67	119.22	1,084.84	0.00	25.35	0.00	0.00	148.51	0.00	2,746.14	0.00
STORAGE - LOCAL	655.35	585.73	678.90	655.41	674.57	692.61	803.92	814.34	810.87	815.85	800.01	724.84	8,710.41	0.00
CWA	8,323.83	7,852.39	7,333.22	7,299.97	7,283.17	7,231.22	8,286.55	8,224.55	8,178.10	8,111.56	8,052.52	8,177.81	84,124.49	0.00
TOTAL	8,979.98	8,238.12	8,010.12	7,925.38	7,957.74	7,923.84	9,060.47	9,038.89	8,985.97	8,927.41	8,852.53	8,602.45	102,833.90	0.00
WELL 101 USE	5.80	4.30	6.20	10.40	6.80	10.80	9.80	10.40	10.40	7.50	10.30	11.10	103.80	0.00
CUY. WELL USE	0.00	34.04	13.30	39.80	53.47	60.90	49.47	40.24	53.80	56.20	49.20	50.80	501.22	0.00
CWA PURCHASE	3,160.30	2,773.96	3,118.50	3,406.40	3,634.83	2,083.80	3,429.43	3,192.50	2,845.20	2,468.30	1,788.20	2,099.90	33,999.12	0.00
CWA USE	2,308.62	1,331.34	3,007.86	3,212.71	3,364.32	1,983.73	3,262.24	3,069.59	2,723.56	2,363.66	1,732.80	2,102.40	30,492.85	0.00
CWA STORAGE	851.68	1,442.62	110.64	193.69	240.31	100.07	167.19	122.91	121.64	102.64	56.40	43.76	3,552.53	0.00
TOTALS														
IN	935.11	1,464.68	145.87	193.89	240.31	100.85	167.19	159.94	195.49	470.97	375.19	234.88	4,683.17	0.00
USE	2,479.59	2,595.96	3,031.43	3,392.57	3,585.23	3,501.25	3,321.51	3,148.88	2,787.78	2,427.38	1,953.98	2,118.04	34,310.54	0.00
LOSS	50.30	40.99	65.51	148.69	137.84	162.15	225.50	106.75	89.37	57.46	42.13	35.08	1,164.68	0.00
STORAGE	11,485.94	10,763.29	10,538.81	10,462.31	10,549.35	10,577.52	12,088.89	12,145.21	12,126.03	12,016.91	11,806.20	11,440.09	135,804.35	0.00

USE & STORAGE SUMMARY

	December-14													Totals
	12/14	11/14	10/14	9/14	8/14	7/14	6/14	5/14	4/14	3/14	2/14	1/14		
EL CAPITAN														
IN - CUYAMACA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LOCAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.61	194.99	11.21	9.00	212.41
CWA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LOSS - LOCAL	11.80	15.52	17.23	24.82	26.12	26.75	33.31	34.19	20.08	14.75	11.55	11.65	250.75	0.00
CWA	0.17	0.22	0.24	0.35	0.41	0.38	0.47	0.48	0.28	0.23	0.18	0.18	3.60	0.00
USE - LOCAL	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CWA	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KITZMAN TRANSFER	0.00	2.08	0.00	2.04	0.00	1.85	0.00	2.19	0.00	1.99	0.00	2.10	12.31	0.00
CWA TRANSFER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CWA PUMPED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STORAGE - LOCAL	1,838.94	1,849.44	1,859.04	1,875.27	1,902.73	1,931.35	1,960.49	1,993.76	2,030.14	2,044.41	1,895.16	1,855.10	22,897.39	0.00
CWA	25.89	28.06	28.28	28.52	28.88	27.29	27.87	28.14	28.62	28.91	29.14	29.32	330.63	0.00
TOTAL	1,864.83	1,885.50	1,884.32	1,901.79	1,929.61	1,959.14	1,988.12	2,020.90	2,058.76	2,073.32	1,895.29	1,895.42	23,228.69	0.00
CUYAMACA														
IN	37.40	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	97.55	0.00	0.00	134.95	0.00
LOSS	0.00	7.30	14.86	31.00	50.35	53.94	75.52	49.23	10.04	0.00	0.00	0.00	391.61	0.00
RELEASE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STORAGE	430.62	393.52	400.82	415.68	446.88	497.03	550.87	628.39	675.62	685.66	588.11	588.11	6,299.41	0.00
LAKE JENNINGS														
IN - LOCAL	106.54	57.51	0.00	0.00	10.38	5.12	0.00	0.00	21.62	17.89	67.81	5.95	235.12	0.00
CWA	185.43	2,007.77	389.60	147.10	95.70	98.18	116.73	136.12	250.31	81.50	36.27	295.81	3,640.57	0.00
LOSS - LOCAL	3.14	4.82	5.07	6.12	6.14	6.30	7.87	8.10	5.15	3.72	2.10	2.84	62.00	0.00
CWA	48.35	63.03	68.38	73.50	74.26	75.84	93.34	95.04	80.06	44.05	28.16	39.03	760.12	0.00
USE - LOCAL	8.57	0.00	81.46	2.68	39.94	48.32	1.34	12.05	21.20	15.41	7.81	14.33	250.21	0.00
CWA	131.99	0.00	1,005.40	35.69	446.73	485.29	1.85	145.16	247.58	132.43	96.20	102.51	3,053.99	0.00
STORAGE - LOCAL	636.26	541.82	483.94	575.67	585.07	611.17	668.68	675.59	696.10	700.83	702.28	644.13	7,530.54	0.00
CWA	8,341.06	8,335.87	6,391.13	7,073.31	7,035.96	7,460.70	8,019.70	8,012.12	8,111.50	8,188.34	8,313.31	8,401.41	83,664.16	0.00
TOTAL	8,977.32	8,977.49	6,880.06	7,049.27	7,020.72	6,077.63	6,868.33	6,868.01	6,807.00	6,899.17	6,015.99	6,045.54	101,195.10	0.00
WELL 101 USE	11.20	10.70	8.50	11.80	9.30	13.00	12.60	12.70	12.50	13.90	12.80	14.80	141.90	0.00
CUY. WELL USE	0.00	58.14	35.27	44.41	46.92	58.67	45.23	61.94	21.30	38.21	37.70	51.50	500.51	0.00
CWA PURCHASE	1,969.50	4,515.98	2,287.33	3,177.39	2,828.48	2,841.23	3,340.15	3,183.88	2,847.80	2,208.70	2,113.70	2,858.00	33,733.99	0.00
CWA USE	1,771.07	2,508.19	1,880.73	3,030.29	2,720.78	2,733.05	3,213.37	3,047.54	2,397.49	2,145.29	2,074.43	2,382.19	29,833.42	0.00
CWA STORAGE	185.43	2,007.77	389.60	147.10	95.70	98.18	116.73	136.12	250.31	81.50	36.27	295.81	3,640.57	0.00
TOTALS														
IN	329.18	2,065.28	389.60	147.10	106.68	103.30	116.73	136.12	277.73	391.73	118.79	301.76	4,481.05	0.00
USE	1,922.72	2,578.03	3,004.36	3,125.66										

USE & STORAGE SUMMARY

December-15

	12/15	11/15	10/15	9/15	8/15	7/15	6/15	5/15	4/15	3/15	2/15	1/15	Totals
EL CAPITAN													
IN - CUYAMACA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LOCAL	937	0.00	0.00	0.00	0.00	0.00	0.00	22.28	0.00	111.64	0.00	0.00	143.49
CWA	740	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	740
LOSS - LOCAL	14.11	16.68	21.90	21.08	27.89	26.70	21.88	18.05	19.56	18.79	11.21	9.92	226.56
CWA	0.19	0.22	0.29	0.28	0.37	0.34	0.29	0.24	0.26	0.27	0.16	0.14	3.04
USE - LOCAL	0.00	0.00	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07
CWA	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
KITZMAN TRANSFER	0.00	1.53	0.00	1.50	0.00	0.00	0.00	1.62	0.00	1.88	0.00	1.97	10.01
CWA TRANSFER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CWA PUMPED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STORAGE - LOCAL	1,733.89	1,738.83	1,766.84	1,780.41	1,802.99	1,830.88	1,858.29	1,879.95	1,877.34	1,896.90	1,895.54	1,819.75	21,778.41
CWA	30.23	23.02	23.24	23.55	23.83	24.20	24.54	24.82	25.08	25.32	25.59	25.75	299.13
TOTAL	1,764.12	1,761.85	1,790.08	1,803.96	1,826.82	1,855.08	1,882.83	1,904.78	1,902.41	1,922.23	1,921.13	1,845.47	22,077.52
CUYAMACA													
IN	6101	12.62	0.00	0.00	0.00	0.00	0.00	24.26	0.00	8.23	31.51	0.00	137.63
LOSS	0.00	0.00	12.62	19.57	41.44	36.94	39.74	0.00	24.26	0.00	0.00	7.01	182.24
RELEASE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STORAGE	38631	32530	31268	32530	34487	38631	42325	46290	43873	46290	45476	42325	474674
LAKE JENNINGS													
IN - LOCAL	4814	200.00	6.82	14.04	0.00	18.28	2.01	38.51	6.64	14.11	60.62	22.10	426.94
CWA	1,714.02	1,182.41	68.39	67.29	82.35	95.43	63.72	89.93	87.04	137.39	76.33	91.82	3,725.11
LOSS - LOCAL	274	2.68	5.30	4.85	6.40	6.74	7.73	5.90	5.58	6.59	2.66	3.84	60.83
CWA	2020	30.22	58.82	53.30	72.03	77.72	88.13	71.52	66.04	78.89	32.81	50.33	703.15
USE - LOCAL	495	74.73	3.30	0.73	83.40	77.52	5.05	0.00	0.51	2.40	12.41	0.56	265.59
CWA	4747	843.09	37.32	8.37	946.58	894.49	57.90	0.00	6.08	28.99	158.94	7.68	3,036.60
STORAGE - LOCAL	73977	69632	56473	56971	56505	64765	71665	72378	86528	69471	69957	65403	7,945.63
CWA	8,320.42	6,600.12	8,371.02	8,401.70	8,106.16	7,353.03	3,260.01	8,313.11	8,303.60	8,290.27	8,250.46	6,374.06	91,322.75
TOTAL	9,057.19	7,378.45	9,935.75	9,968.49	9,954.21	8,000.88	3,975.69	9,038.89	8,998.95	8,940.03	8,029.90	6,029.90	99,268.38
WELL 101 USE													
CUY. WELL USE	0.00	0.00	11.90	12.00	12.90	13.40	12.60	1.80	0.00	0.00	4.50	11.70	80.80
TOTALS													
IN	1,839.93	1,404.03	73.00	81.32	62.35	81.09	90.03	103.98	93.08	271.07	158.30	114.02	4,440.57
USE	2,064.30	2,308.41	2,365.03	2,443.41	2,618.74	2,391.68	2,460.23	2,228.67	2,584.65	2,385.10	2,101.82	2,039.34	27,992.48
LOSS	43.29	49.80	69.93	68.86	148.73	147.43	158.80	65.80	118.20	104.54	46.74	71.90	1,181.82
STORAGE	11,207.82	9,965.39	9,026.51	9,067.76	9,129.90	10,242.20	11,281.73	11,408.65	11,340.09	11,309.19	11,234.62	11,204.05	126,992.86

BMC 6/20/2016

Background on Groundwater

Per Section 6.2 of Helix Water District’s 2015 Urban Water Management Plan, currently, ground water constitutes less than 1 percent of the district’s water supply and is pumped from a well that is referred to as Well 101. The ground water source of Well 101 is the San Diego River Valley Basin, also known informally as the “El Monte Basin”, identified by basin number 9-15 in DWR Bulletin 118. The basin is shown on a regional map in Figure 6-1, which is taken from the City of San Diego’s California Statewide Groundwater Elevation Monitoring Program report submitted to DWR for review, dated July 2015. The City of San Diego holds pueblo rights to the basin, and an agreement exists between the City of San Diego and the district for use of groundwater in the San Diego River Basin. The agreement between the City of San Diego and the district provides that the district may divert and use no more than 100,000 gross acre-feet from the total San Diego River watershed in a ten year moving average period. The gross acre-feet diversion and use includes surface and groundwater. As such, the district utilizes more surface water from the watershed than groundwater.

During the initiation of CASGEM, the San Diego River Valley Basin boundary was modified from the DWR Bulletin 118 boundary. The modified boundary was agreed upon between DWR and the City of San Diego to include portions of the basin that were not in DWR Bulletin 118. The modified basin boundary includes an area of 13.8 square miles. The basin floor is approximately 15 miles long, varies in width from 500 feet to 5,000 feet and has a storage capacity of up to 70,000 acre-feet. It is an alluvial aquifer with depths ranging from 100 to 200 feet. Total dissolved solids in the basin water ranges between 260 mg/L to 2870 mg/L.

The San Diego River Valley Basin is located in the eastern portion of the greater San Diego metropolitan area and includes four contiguous sub-basins, informally known as the Santee Basin, Lakeside Basin, Moreno Valley Basin and El Monte Basin, respectively, all of which have not yet been formally assigned sub-basin numbers for inclusion in DWR Bulletin 118. The San Diego River Valley Basin is comprised of a commingling of alluvial valleys of the San Diego River, San Vicente Creek, Forester Creek, Los Coches Creek and Sycamore Canyon Creek. The San Vicente and El Capitan Reservoirs are located at the eastern and northern edges of the basin, respectively.

The San Diego River Valley Basin is not currently exhibiting signs of being overdrafted (e.g. declining water levels/dropping of the water table, land subsidence, water quality degradation/brackish water or other environmental impacts). Further, the basin is not identified as a basin at risk of being critically overdrafted by DWR. Consequently, no overdraft measures are being defined or implemented for this basin.

Prior to establishing Well 101, an earlier well was constructed in 1975 and was named Well 100. That well collapsed in the 1990's which resulted in a second well, Well 101, being constructed in 2001. The most production achieved from the original Well 100 was approximately 500 AFY in the late 1970's. Groundwater production out of Well 101 has never produced more than 1 percent of the district's total water supply. The district's single groundwater well, Well 101, has historically produced about 130 AFY.

For fiscal year 2015 a total volume of 93 AF was pumped from the well, which is below average. The reason for this lower than average volume was due to maintenance work performed on the well resulting in production downtime. It is important to note that this lower production of water volume pumped from the well was due to this equipment maintenance issue and not because of issues with the groundwater itself. Projected volumes for Well 101 are anticipated to be back to average volumes as indicated in Table 6-9 at the end of this Chapter. As previously discussed in Section 6.2.3, the District has not experienced any challenges or limitations indicative of the basin being overdrafted (e.g. brackish water, dropping water table, etc.). Additionally, as discussed in section 6.2.1, due to water rights limitations for use of groundwater in the San Diego River Valley Basin, the District has no plans to expand the use of groundwater.

Background on Surface Water

Per Section 6.3 of Helix Water District's 2015 Urban Water Management Plan, local water sources are obtained from runoff impounded behind the dam at Lake Cuyamaca which has a storage capacity of 8,195 AF, as well as within the reservoir behind El Capitan Dam, a City of San Diego reservoir for which the district has storage rights up to 10,000 AF.

The district also owns and operates Lake Jennings, an imported water impoundment behind Chet Harritt Dam, with a storage capacity of 9,790 AF. In addition to the imported water stored at Lake Jennings, some measurable local runoff gains are also achieved at this facility.

The district's normal local water supply has a historical median runoff value of 3,644 AFY based on the recorded data beginning in 1938. The median runoff value corresponds to the level recorded in 1975. The average runoff recorded over the same record is 6,165 AFY. For purposes of the 2015 urban Water Management Plan the median runoff value of 3,644 AFY, representing a 50 percent exceedance probability, represents a normal water year. Evaporative loss of local surface waters based on cumulative monthly percentage of evaporation from total storage is estimated to be 10.6 percent, resulting in a net median runoff value of 3,258 AFY.

Full details regarding the district's available water sources, supplies and demand are available in the district's [2015 Urban Water Management Plan](#).