A G E N D A

REGULAR MEETING OF THE BOARD OF DIRECTORS OF THE
LAKESIDE WATER DISTRICT

June 2, 2026

Meeting Place: Lakeside Water District; 10375 Vine Street
Lakeside CA 92040; **5:30 p.m**.

Assistance for those with disabilities: If you have a disability and need accommodation to participate in the meeting, please call Brett Sanders, General Manager, at (619) 443-3805 for assistance so the necessary arrangements can be made.

1. Call to Order

2. Prayer/Invocation

3. Pledge of Allegiance

4. Approval of the Agenda

5. Opportunity for Public Comment Pertaining to Items Not on the Agenda (Items must meet the requirements of Government Code Section 54954.2)

6. Approve Minutes of a Regular Meeting held on May 5, 2026.

7. Review the April 2026 Treasurers Report for the Annual Audit. Request to Note and File in Preparation.

8. Public Hearing for the 2025 Urban Water Management Plan and the 2025 Water Shortage Contingency Plan. Sanders and Jake Comer with West and Associates. Sanders

9. Consider Resolution 26-03 Adopting the 2025 Urban Water Management Plan. Sanders

10. Consider Resolution 26-04 Adopting the 2025 Water Shortage Contingency Plan. Sanders

11. Consider Resolution 26-05 Awarding Contract for the Yerba Valley Annexation Pipeline Project – Private Customer Lines. Sanders

12. Operations Report. Johnze

13. Review Draft Capital Improvement Plan Revisions for the Annual 5-Year CIP Update. Sanders

14. Approve Demands of the Treasurer for May 2026.

15. CWA Report

16. Director's Reports and/or Ad Hoc Sub-Committees Reports if needed.

17. General Managers' Report.

18. Closed Session Item – Significant Exposure to Litigation (54956.9(d)(2), (e)(1)) - One Case.

19. Adjourn; Next Meeting Special Meeting to be held on June 18, 2026.

PUBLIC COMMENT PROCEDURES

Members of the public will be allowed to address the Board on any agenda item prior to the Board's decision on the item. They will also be allowed to comment on matters not on the posted agenda, which are under the subject matter jurisdiction of the district. No action may be taken by the board except to set the matter presented for the next regular board meeting if proposed by the board. State your name, topic and provide the secretary with a request to speak form, so you can be properly included in the comment period. Comments are limited to 3 minutes and the board is not required to comment on the topic.

CERTIFICATE OF POSTING

I certify that on May 29, 2026, I posted a copy of the meeting agenda and any public records relating to items on the agenda and that they are available for public inspection at the time the record is distributed to all, or a majority of all members of the board. Such records shall be available at the district office located at 10375 Vine Street, Lakeside, California, or on the district's website at LakesideWater.org.

Agendas are posted at least 72 hours in advance of a regular meeting, or 24 hours in advance of a special meeting of the Board of Directors, near their regular meeting place, and as per Government Code Section 54954.2(a)(1) and 54956(a).

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Brett Sanders, General Manager / Board Secretary

MINUTES OF A REGULAR MEETING OF THE BOARD OF DIRECTORS OF THE LAKESIDE WATER DISTRICT
HELD ON May 5, 2026

At the time and place provided by law for the holding of a Regular Meeting of the Board of Directors of the Lakeside Water District; to-wit at the meeting place of said Board at 10375 Vine Street, Lakeside, California, at 5:30 p.m. the Board duly convened, the following members present.

Directors:	Frank Hilliker Pete Jenkins Steve Johnson Eileen Neumeister Steve Robak
Secretary:	Brett Sanders

1) Call to Order by Board President Neumeister

2) Prayer/Invocation – Reverend Tim Avazion provided the prayer for the night's meeting.

3) Pledge of Allegiance was led by Director Johnson.

4) Approval of Agenda. Motion by Director Hilliker to accept the agenda as submitted.

Motion: Hilliker Second: Robak

Vote:	Ayes	5	Hilliker, Jenkins, Johnson, Neumeister, Robak
	Noes	0	
	Abstain	0	
	Absent	0	

5) Opportunity for Public Comment Pertaining to Items Not on the Agenda (Items must meet the requirements of Government Code Section 54954.2). None

6) Approve Minutes of a Regular Meeting held on April 7, 2026. Motion by Director Johnson to approve the minutes as presented.

Motion: Johnson Second: Robak

Vote:	Ayes	5	Hilliker, Jenkins, Johnson, Neumeister, Robak
	Noes	0	
	Abstain	0	
	Absent	0	

7) Review the March 2026 Treasurers Report for the Annual Audit. Request to Note and File in Preparation. Approved to Note and File.

8) Operations Report. General Manager Sanders reported the following.
   - EOS Building Updates; Flooring complete, bathroom complete, furnishings delivered. Network wiring complete.

- SCADA improvements. Good progress to fine tune the network communications and lower alarm call outs.
- One Utility Worker left the District. Currently looking to fill two positions.
- RiverRun East 2 – Contractor completing final 300 LF of main installation.
- River Street, City of San Diego Pump Station Project. Set up highline for contractor to prepare to replace existing main.

Main break 1 Castle Court, Service leaks 2 Lyendekker and Calle Lucia, Fire hydrants 1

9) Consider Approval of a Proposal for the District to Work with a Municipal Advisor to Secure Funding for the Yerba Valley Annexation Project. Dmitry Semenov with Ridgeline Municipal Strategies presented a proposal to obtain funding for the Yerba Valley Annexation Project in the amount of $26,950 to provide recommendations of funding available to the District and complete the funding necessary for the project. Motion by Director Hilliker to approve a proposal by Ridgeline Municipal Strategies in the amount of $26,950 to review funding options to the District and complete the funding process for the District loan.

Motion: Hilliker Second: Jenkins

Vote:	Ayes	5	Hilliker, Jenkins, Johnson, Neumeister, Robak
	Noes	0	
	Abstain	0	
	Absent	0	

10) Discuss the Current Options of Funding for the Yerba Valley Annexation Project. The General Manager summarized the current funding consideration of the USDA and introduced Mr. Semenov with Ridgeline Municipal Strategies to provide an overview of funding options that may be considered by the Board. Mr. Semenov will provide a summary of funding options to the General Manager and review timelines to obtain the funding. Presentation only no action.

11) Set Public Hearing Date of June 2, 2026 for the 2025 Urban Water Management Plan Review. The General Manager highlighted the process to approve the 2025 UWMP and Water Shortage Contingency Plan as required by the Department of Water Resources. Motion by Director Jenkins to approve the Public Meeting Date of June 2, 2026.

12) Review Lakeside Water District Board of Director's PFAS Initial Monitoring Results Exceedance Notification Letter. The General Manger presented to the Board a letter Notifying the Board of a sampling result exceedance for two chemicals in the PFAS group of sampling for the required Initial Monitoring of PFAS chemicals. No action, information only.

13) Approve Demands of the Treasurer for April 2026. Motion by Director Hilliker to approve the demands as presented.

Motion: Hilliker Second: Robak

Vote:	Ayes	5	Hilliker, Jenkins, Johnson, Neumeister, Robak
	Noes	0	
	Abstain	0	
	Absent	0	

14) CWA Report – CWA Representative Hilliker reported that the Board voted to approve a water transfer agreement with Western Agriculture, LLC to receive Semitropic Water Bank in the amount of 7,717 AF of banked water. Also, the Board ratified a Water Delivery Agreement with Eastern Municipal Water District located in Riverside County. A signing ceremony was held following the approval.

15) Director's Report and Ad Hoc Sub-Committees Reports. No comments

16) Manager's Quarterly Report. The General Manager reported.

1) Yerba Valley Annexation Pipeline Update – Pre-bid will be held on May 7th with the bid date of May 21st.
2) 2026-2027 Budget Development – Started working on the 26-27 budget for a July 7th, Board consideration.
3) 2025 Consumer Confidence Report and 2026 Newsletter. Working on the newsletter and water quality report for a June 30th mailing deadline.

17) Closed Session Item – Anticipated Litigation (54956.9 (e)(1)) – One Case. No Action to Report.

18) There being no further business the meeting adjourned to the next Regular Meeting scheduled for June 2, 2026.

Attest:

Brett Sanders, Board Secretary Lakeside Water District	Eileen Neumeister Board President

Lakeside Water District
Statement of Revenues and Expenses
July 2025 through April 2026

	Apr 26	Jul '25 - Apr 26	Budget	% of Budget
Operating Revenue				
Water Sales				
4000 · Water Sales on Account	$ 698,760	$ 7,716,298	$ 9,602,575	80%
4010 · System meter charge	$ 140,100	$ 1,233,526	$ 1,458,965	85%
4020 · CWA/IAC	$ 39,290	$ 384,673	$ 457,906	84%
4040 · Penalties / other	$ 15,002	$ 129,602	$ 130,000	100%
Total Water Sales	$ 893,152	$ 9,464,099	$ 11,649,446	81%
4100 · Capacity Fees LWD	$ 1,547	$ 50,592	$ 57,030	89%
4101 · SDCWA Capacity & Treatment	$ -	$ 52,562	$ 85,186	62%
4200 · Meter Services	$ 361	$ 11,614	$ 35,000	33%
4210 · Engineering & Inspection Fees	$ -	$ 37,186	$ 7,500	496%
4220 · Fire Hydrants	$ -	$ 15,375	$ 30,000	51%
4230 · Tapping	$ -	$ 15,000	$ 15,000	100%
4300 · Miscellaneous Income	$ 6,653	$ 62,936	$ 20,000	315%
4310 · Water Letters	$ 400	$ 2,450	$ 250	980%
4400 · Rent - Land Lease	$ 48,386	$ 285,686	$ 291,770	98%
4600 · Interest Income	$ 33,625	$ 358,230	$ 315,000	114%
4700 · Taxes Revenue	$ 282,975	$ 795,315	$ 800,000	99%
Total Operating Revenue	$ 1,267,099	$ 11,151,045	$ 13,306,182	84%
Expense				
Administrative and General				
7000 · General Manager/Secretary	$ 18,833	$ 191,590	$ 234,000	82%
7001 · Incentive Compensation	$ -	$ 14,000	$ 14,000	100%
7020 · Director's Fees	$ 625	$ 6,125	$ 10,750	57%
7100 · General Insurance	$ 16,647	$ 101,914	$ 66,575	153%
7200 · Annual Audit	$ -	$ 33,555	$ 31,000	108%
7210 · Attorney Fees	$ 1,275	$ 13,300	$ 30,000	44%
7230 · Consultants	$ 3,051	$ 32,148	$ 8,000	402%
7300 · Elections/Registrar	$ -	$ -	$ 2,000	0%
7320 · Lafco Operating Costs	$ -	$ 3,994	$ 5,634	71%
7401 · Administrative Expense	$ 221	$ 4,021	$ 7,000	57%
7450 · Public Info/Public Relat	$ -	$ 13,497	$ 11,350	119%
7500 · State Health Dept./ SWRCB	$ -	$ 46,434	$ 49,064	95%
7800 · Bad Debt Expense	$ -	$ -	$ 2,000	0%
7900 · Water Dev./Conservation Program	$ -	$ -	$ 9,500	0%
Total Administrative and General	$ 40,652	$ 460,578	$ 480,873	96%
Operations and Maintenance				
5000 · Water Purchases	$ 701,099	$ 6,836,430	$ 7,994,040	86%
5075 · Padre Dam Deliver Charge	$ -	$ -	$ 2,600	0%
5080 · Water Treatment & Testing	$ 2,369	$ 19,095	$ 24,000	80%
5090 · Infrastructure Access Charge	$ 37,465	$ 374,380	$ 443,760	84%
5091 · SDCWA Capacity & Treatment Fees	$ -	$ 52,562	$ 111,353	47%
5100 · Electric Power	$ 43,868	$ 243,915	$ 327,000	75%

	Apr 26	Jul '25 - Apr 26	Budget	% of Budget
5200 · Water Treatment -Maint/Supplie	$ 6,636	$ 128,715	$ 80,000	161%
5627 · County - Road Improvements	$ -	$ -	$ 15,000	0%
5628 · Telemetry Repair	$ 1,765	$ 14,866	$ 15,000	99%
6000 · Wages, Field	$ 71,358	$ 665,745	$ 866,513	77%
6100 · Distribution - Maint/Supplies	$ 14,865	$ 121,300	$ 130,000	93%
6102 · Dist. Pump & Maint	$ 1,907	$ 59,888	$ 60,000	100%
6110 · Emergency Repairs & Service	$ 5,220	$ 20,969	$ 45,000	47%
6200 · Trucks-Fuel,Maintenance,Repair	$ 5,559	$ 55,914	$ 70,000	80%
6400 · Outside Labor	$ 510	$ 14,411	$ 42,000	34%
6410 · Engineering	$ -	$ 3,052	$ 20,000	15%
7010 · Wages, Office	$ 28,805	$ 276,681	$ 340,000	81%
7030 · Payroll Taxes	$ 9,151	$ 84,371	$ 102,508	82%
7040 · Group Insurance	$ 31,070	$ 320,715	$ 326,740	98%
7050 · CalPers Retirement	$ 14,072	$ 199,172	$ 253,503	79%
7070 · Unemployment Insurance	$ -	$ -	$ 5,000	0%
7400 · Office Expense	$ 13,505	$ 164,022	$ 157,714	104%
7440 · Dues & Subscriptions	$ 12,625	$ 37,070	$ 32,000	116%
7920 · Miscellaneous Expense	$ 162	$ 4,932	$ 6,000	82%
Total Operations and Maintenance	$ 1,002,011	$ 9,698,205	$ 11,469,731	85%
Total Expense	$ 1,042,663	$ 10,158,783	$ 11,950,604	85%
Net Ordinary Income	$ 224,436	$ 992,262	$ 1,355,578	73%
Capital Requirements				
1510 · Buildings & Land Improvements	$ -	$ 4,949	$ 4,000	124%
1520 · O & M Equipment	$ 361	$ 5,761	$ 10,000	58%
1530 · Office Furniture & Equipment	$ -	$ 7,500	$ 15,000	50%
1547 · CIP Design/Engineering	$ -	$ 15,235	$ 5,000	305%
1550 · Pumping Plant & Distribution	$ -	$ 30,808	$ 30,000	103%
1551 · New Service/Meters	$ -	$ 9,459	$ 10,000	95%
1580 · SCADA Telemetry Upgrade	$ 886	$ 27,615	$ 30,000	92%
1581 ·Yerba Valley Annexation Pipeline	$ 5,269	$ 25,744	$ 450,000	6%
1582 ·Operations, Eng. & Security Bldg.	$ 36,379	$ 267,987	$ 195,000	137%
1583 ·Julian Ave. Multiple Pipe Rep.	$ -	$ 14,655	$ 20,000	73%
1584 ·Rocoso Rd. Pipe Replacement Eng.	$ -	$ 6,060	$ 20,000	30%
Total Capital Expense	$ 42,895	$ 415,773	$ 789,000	53%

Lakeside Water District

Investment Report

As of April 30, 2026

	Apr 30, 26
Current Assets	
Checking/Savings	
1020 · UBS Cash Fund	3,217.86
1030 · King Cash Fund	81,383.64
1050 · Multi-Bank Securities, Inc.	83,836.19
1070 · Investment - LAIF	1,032.05
Total Checking/Savings	169,469.74
Other Current Assets	
Investments	
1321.70 · Mrgn Stanley BK 4.45% 6/6/29	115,000.00
1321.71 · First Gty Bk Hamm 4.35% 11/6/28	199,900.00
1321.73 · FHLB 4.09% 11/25/30	245,005.25
1321.74 · FHLMC Med 4.170% 01/27/31	245,005.25
1351.38 · Toyota 0.95% 7/22/26 57542	140,000.00
1351.39 · Synchrony 0.9% 8/20/26 27314	119,000.00
1351.40 · FHLN 0.9% 8/26/26	640,000.00
1351.41 · ConnectOneBk 0.8% 9/24/26 57919	136,000.00
1351.42 · PentagonFed 0.9% 9/29/26 227	249,000.00
1351.43 · FHLN 1.1% 10/13/26	350,000.00
1351.44 · FHLN 1.375% 11/16/26	270,000.00
1351.45 · FHLB 1.65% 12/30/26	270,000.00
1351.46 · FHLN 2.5% 3/29/27	270,000.00
1351.48 · StBk India 3.3% 6/1/27 33682	100,000.00
1351.49 · TSRY 2.375% 5/15/27	346,489.66
1351.51 · Morgan S Privt Bk 3.7% 9/26/29	245,000.00
1351.52 · Morgan S Bk 3.7% 9/26/29	105,000.00
1351.54 · Cross Riv Bk Teaneck 4% 1/3/28	245,000.00
1351.55 · AMEX NATL BK 4.15% 3/26/30	244,000.00
1351.56 · EAGLEBK BETH 4.05% 4/17/28	249,000.00
1351.57 · MILESTONE BANK 3.95% 4/28/28	245,000.00
1351.58 · FNBA 3.85% 4/30/29	249,000.00
1351.59 · Medallion BK 4.050% 5/19/28	249,000.00
1351.60 · UBS BK USA 4.10% 5/22/28	249,000.00
1351.61 · USF FCU 4.00% 7/30/30	249,000.00
1351.62 · Valley Nat'l Bk 3.95% 07/31/28	245,000.00
1351.63 · Connexus 3.75% 9/18/28	249,306.99
1351.64 · Royal BK CDA 4.10% 9/30/30	500,000.00
1351.65 · Gold Sachs BK USA 3.70% 10/7/30	245,000.00
1351.66 · Gulf Coast B&T 3.65% 11/25/30	245,000.00
1351.67 · Texas EXC Bank 3.75% 11/26/29	249,000.00
1351.68 · 3rd Fed SVG & LN 3.75% 12/19/30	245,000.00
1351.69 · Farmers & Merch. 3.70% 12/31/30	249,000.00

	Apr 30, 26
1351.70 · Customers Bank 3.80% 2/26/31	245,000.00
1351.71 · Celtic Bank 3.75% 2/27/31	249,000.00
1351.72 · Sunwest BK/UT 3.65% 2/27/31	249,000.00
1351.73 · Optum Bank 3.70% 3/11/31	245,000.00
1351.74 · Enterprise Bank 3.70% 3/17/31	249,000.00
1351.75 · Fannie Mae 4.00% 3/24/31	450,000.00
1383.27 · FHLB 2.5% 2/25/27	670,000.00
1383.28 · BealBk 2.05% 3/3/27 57833	247,000.00
1383.29 · FHLB 2.5% 3/30/27	200,000.00
1383.30 · FHLB 3.25% 4/21/27	255,000.00
1383.31 · FHLB 3% 4/29/27 no call 24mo	250,000.00
1383.32 · FHLB 3.375% 5/28/27 no call24mo	255,000.00
1383.33 · AllyBk 3% 6/9/26 57803	139,000.00
1383.34 · SALLMA 4.3% 07/27/29	244,000.00
1383.35 · UBS 4.2% 07/24/29	248,000.00
1383.36 · FNMA 4.375% 8/6/29	179,184.50
1383.37 · Valley Natl 4.15% 1/27/28	244,000.00
1383.40 · FHLB 4.125% 10/5/29	204,692.50
1383.41 · FHLB 4.375% 6/24/2030	185,878.75
1383.42 · Farmer MAC 4.26% 7/16/30	496,980.00
1383.44 · FNMA 4.00% 8/20/30	899,550.00
1383.45 · FNMA 3.75% 1/7/31	320,000.00
1383.46 · JPMC Bank 4.00% 3/26/31	240,000.00
Total Investments	15,216,992.90
Total Current Assets	15,386,462.64

Investment Changes in April 2026

***** No Activity**

Investments by Maturity

April 2026

Description	Cusip	Maturity	Rate	Amount	Est. Yr Interest	Avg Rate
King Fidelity Treasury MM	FZFXX		4.11%	$ 567	$ 23.29	
Maturity in 2025	$ 567	0%				4.11%
Ally Bank	02007GSU8	6/9/2026	3.00%	$ 139,000	$ 4,170.00	
Toyota Fin	89235MLD1	7/22/2026	0.95%	$ 140,000	$ 1,330.00	
Synchrony	87165GD74	8/20/2026	0.90%	$ 119,000	$ 1,071.00	
FHLB	3130ANJT8	8/26/2026	0.90%	$ 640,000	$ 5,760.00	
ConnectOneBk	20786ADL6	9/24/2026	0.80%	$ 136,000	$ 1,088.00	
PentagonFed	70962LAS1	9/29/2026	0.90%	$ 249,000	$ 2,241.00	
FHLN	3130APB87	10/13/2026	1.10%	$ 350,000	$ 3,850.00	
FHLN	3130APLP8	11/16/2026	1.38%	$ 270,000	$ 3,712.50	
FHLB	3130AQBE2	12/30/2026	1.65%	$ 270,000	$ 4,455.00	
Maturity in 2026	$ 2,313,000	15%				1.20%
FHLB	3130AQYG2	2/25/2027	2.50%	$ 670,000	$ 16,750.00	
Beal Bk	07371CK81	3/3/2027	2.05%	$ 247,000	$ 5,063.50	
FHLB	3130ARDY4	3/29/2027	2.50%	$ 270,000	$ 6,750.00	
FHLB	3130ARCL3	3/30/2027	2.50%	$ 200,000	$ 5,000.00	
FHLB	3130ARKD2	4/21/2027	3.25%	$ 255,000	$ 8,287.50	
FHLB	3130ARMS7	4/29/2027	3.00%	$ 250,000	$ 7,500.00	
US Treasurery	912828X88	5/15/2027	3.54%	$ 346,490	$ 12,265.75	
FHLB	3130ARYQ8	5/28/2027	3.37%	$ 255,000	$ 8,593.50	
State Bank India N	856285N64	6/1/2027	3.30%	$ 100,000	$ 3,300.00	
Maturity in 2027	$ 2,593,490	17%				2.83%
Cross Riv BK Teaneck	227563LU5	1/3/2028	4.00%	$ 245,000	$ 9,800.00	
Valley National Bk	919853PX4	1/28/2028	4.15%	$ 244,000	$ 10,126.00	
EAGLEBANK Bethesda	27002Y-HN-9	4/17/2028	4.05%	$ 249,000	$ 10,084.50	
Milestone BK SALT	59934M-DC-9	4/28/2028	3.95%	$ 245,000	$ 9,677.50	
Medallion BK Salt	58404D-XT-3	5/19/2028	4.05%	$ 249,000	$ 10,084.50	
UBS BK USA	90355G-WG-7	5/22/2028	4.10%	$ 249,000	$ 10,209.00	
Valley Nat'l Bk	919853QZ7	7/31/2028	3.95%	$ 245,000	$ 9,677.50	
Connexus	20825WES5	9/18/2028	3.75%	$ 249,307	$ 9,349.01	
1st Gty Bk Hammond	320437AT3	11/6/2028	4.35%	$ 199,900	$ 8,695.65	
Maturity in 2028	$ 2,175,207	14%				4.03%
FNBA	32110Y-T7-0	4/30/2029	3.85%	$ 249,000	$ 9,586.50	
Mrgn Stanley BK	61776CPV3	6/6/2029	4.45%	$ 115,000	$ 5,117.50	
UBS	90355GPU4	7/24/2029	4.20%	$ 248,000	$ 10,416.00	
SALLMA	795451DM2	7/24/2029	4.30%	$ 244,000	$ 10,492.00	
FNMA	3135GAU25	8/6/2029	4.38%	$ 179,185	$ 7,839.32	
Morgan S Privt Bk	61768UPS0	9/26/2029	3.70%	$ 245,000	$ 9,065.00	
Morgan S Bk	61776CBR7	9/26/2029	3.70%	$ 105,000	$ 3,885.00	
FHLB	3130B34U4	10/5/2029	4.13%	$ 204,693	$ 8,443.57	
Texas EXC Bank	88241TXB1	11/26/2029	3.75%	$ 249,000	$ 9,337.50	

Investments by Maturity

April 2026

Description	Cusip	Maturity	Rate	Amount	Est. Yr Interest	Avg Rate
Maturity in 2029	$ 1,838,877	12%				4.03%
American Express Nat'l Bk	02589AGX4	3/26/2030	4.15%	$ 244,000	$ 10,126.00	
FHLB	3130B6T22	6/24/2030	4.38%	$ 185,879	$ 8,132.20	
Farmer MAC	31424WK43	7/16/2030	4.26%	$ 496,980	$ 21,171.35	
USF FCU	90353ECE1	7/30/2030	4.00%	$ 249,000	$ 9,960.00	
Fedl Natl MTG Assn	3136GANN5	8/20/2030	4.00%	$ 899,550	$ 35,982.00	
Royal BK CDA	RY6190844	9/30/2030	4.10%	$ 500,000	$ 20,500.00	
Gold SachsBK USA	38151PAH4	10/7/2030	3.70%	$ 245,000	$ 9,065.00	
Gulf Coast B&T	402194GS7	11/25/2030	3.65%	$ 245,000	$ 8,942.50	
FHLB	3130B8LT7	11/25/2030	4.09%	$ 245,005	$ 10,020.71	
3rd Fed SVG & LN	88413Q-JK-5	12/19/2030	3.75%	$ 245,000	$ 9,187.50	
Farmers & Merchants	308862-EH-O	12/31/2025	3.70%	$ 249,000	$ 9,213.00	
Maturity in 2030	$ 3,804,414	25%				4.00%
FNMA	3136GCDK8	1/7/2031	3.75%	$ 320,000	$ 12,000.00	
FHLMC Med	3134HCPG8	1/27/2031	4.17%	$ 245,005	$ 10,216.72	
Customers Bank	23204H-RQ-3	2/26/2031	3.80%	$ 245,000	$ 9,310.00	
Celtic Bank Salt Lake	15118R-4D-6	2/27/2031	3.75%	$ 249,000	$ 9,337.50	
Sunwest Bank/UT	86804DDM7	2/27/2031	3.65%	$ 249,000	$ 9,088.50	
Optum Bank	68405V-FL-8	3/11/2031	3.70%	$ 245,000	$ 9,065.00	
Enterprise Bank	29367R-NQ-5	3/17/2031	3.70%	$ 249,000	$ 9,213.00	
Fannie Mae	3136GCVD4	3/24/2031	4.00%	$ 450,000	$ 18,000.00	
JPMC Bank	46659CZC7	3/26/2031	4.00%	$ 240,000	$ 9,600.00	
Maturity in 2031	$ 2,492,005	16%				3.85%

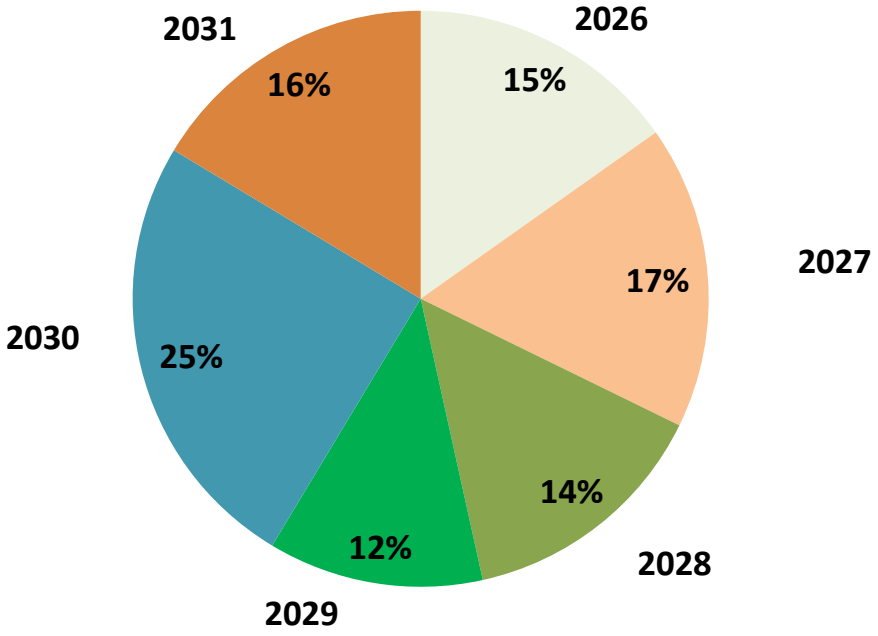
	Investments	Annual Interest	Avg
Total	$ 15,217,560	$ 511,228	3.36%

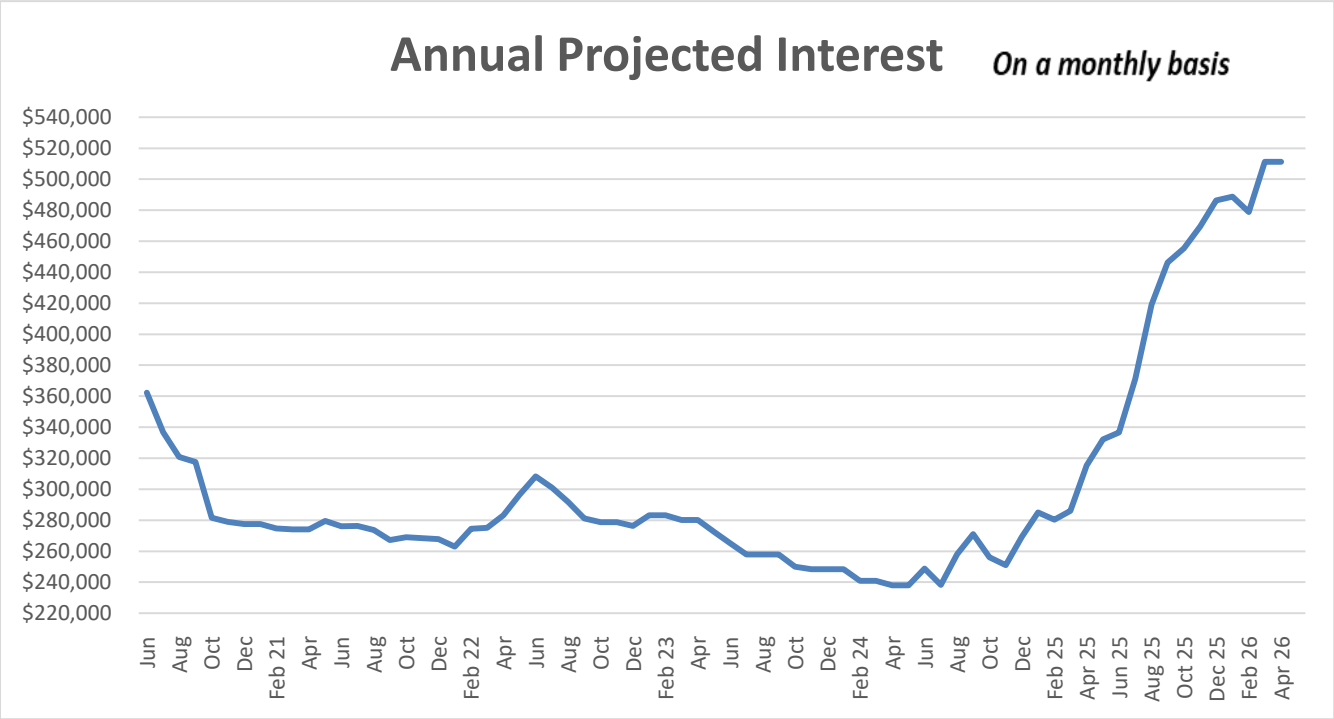
Investments by Maturity

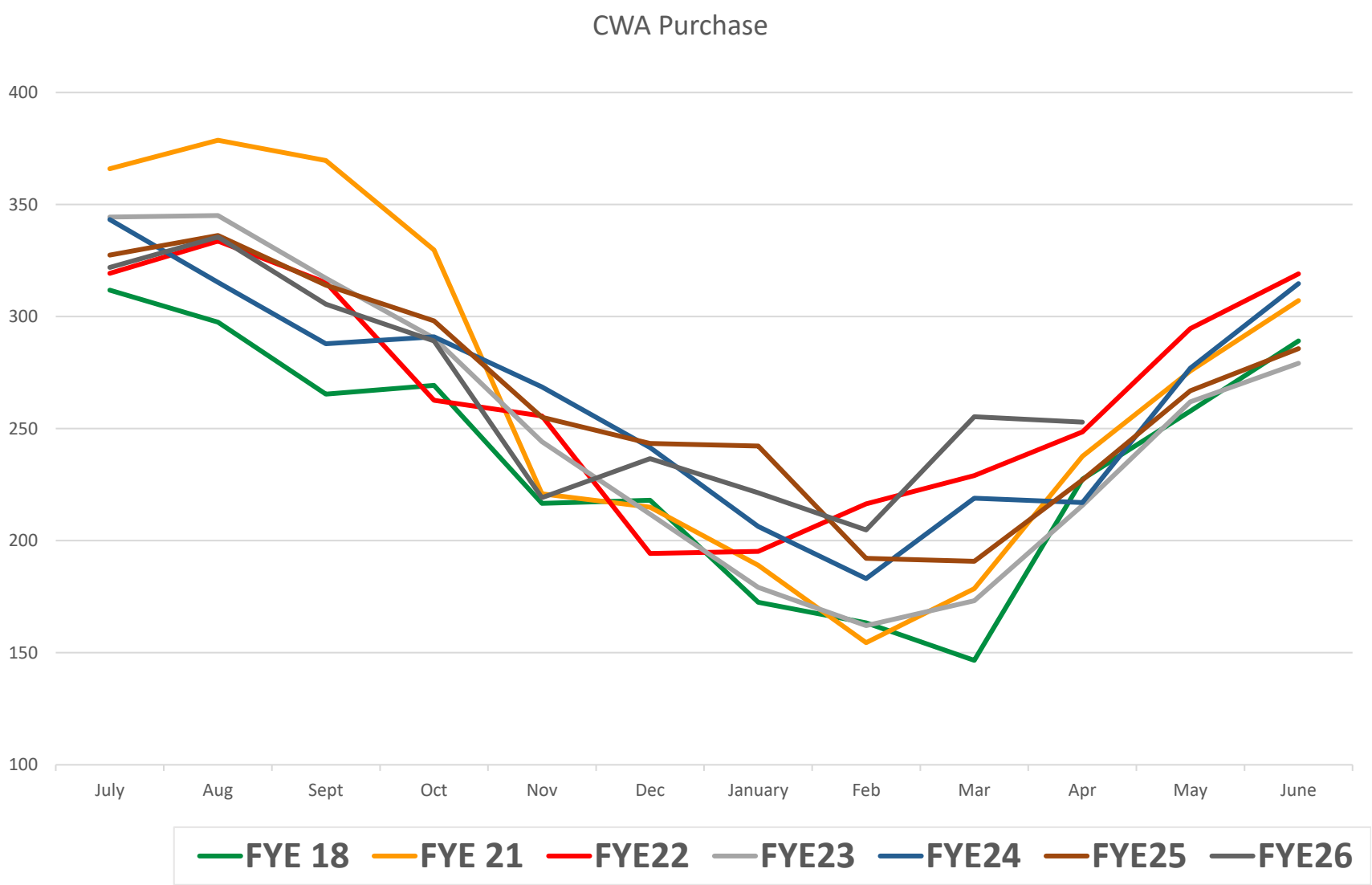
April 2026

Description	Cusip	Maturity	Rate	Amount	Est. Yr Interest	Avg Rate

Investments by Maturity Year



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FYE 21
FYE22
FYE23
FYE24
FYE25
FYE26

LAKESIDE WATER DISTRICT

BOARD REPORT

TO: Board of Director's

FROM: Brett Sanders

DATE: May 28, 2026

SUBJECT: Conduct Public Hearing to Consider Comments or Recommendations to Approve the Revised 2025 Water Shortage Contingency Plan and the 2025 Urban Water Management Plan.

Recommendation:

Upon Completion of Public Hearing Consider Approval of Resolution 26-03 Adopting the 2025 Urban Water Management Plan and the 2025 Water Shortage Contingency Plan and Directing the General Manager to file the plans with the California Department of Water Resources.

Background

The Urban Water Management Planning Act of 1983 included in the California Water Code (the Act) requires urban water suppliers within the state to prepare and adopt an updated Urban Water Management Plan (UWMP) and a Water Shortage Contingency Plan (WSCP) and submit them to the California Department of Water Resources by July 1, 2026. The 2025 UWMP update and new 2025 WSCP satisfy the requirements of the Act, including amendments that have been made to the Act. The 2025 UWMP update also reaffirms that the district complies with the State's 20x2020 Water Conservation Plan and the Senate Bill X7-7 Water Conservation Act of 2009.

The 2025 UWMP update provides revisions to the 2020 UWMP, including new information and projections for a planning period to 2050, reaffirms compliance targets pursuant to the 20x2020 Water Conservation Plan and SB X7-7, and updates the district's 2020 WSCP. The district's policy and procedures manual Section 4.9, which establishes the legal authority to implement the district's 2025 WSCP, is being updated in concert with the UWMP. The district's draft 2025 UWMP, and 2025 WSCP have been developed in a coordinated effort with West and Associates and planning data from the San Diego County Water Authority, as required by the Water Code. Agencies within the district's jurisdiction were also notified of the ongoing updates to the district's UWMP and WSCP. Copies of the draft 2025 WSCP and 2025 UWMP were made available for public review at the district's administrative office as well as on the district's website during a two week period in advance of the public hearing.

Outcome:

Once the board adopts the plans and authorizes their submittal to DWR, The District will transmit the plans within 30 days of their adoption as required by the Act. Final copies of the plans will also be provided to cities within the district's service area as well as to the County of San Diego. The Water Shortage Policy and Procedure will go into effect upon adoption and will be posted within 10 days after its adoption in three public places within the district's service boundary. The policies and procedures manual Section 4.9, 2025 WSCP, and 2025 UWMP will continue to be available for public review at the district's administration office and online at the district's website. The district's approval of the UWMP and WSCP is statutorily exempt from environmental review under California Water Code Section 10652 and Section 10.

2025

URBAN WATER MANAGEMENT PLAN

Lakeside Water District, CA

WEST&ASSOCIATES
ENGINEERING, INC.

2025

URBAN WATER MANAGEMENT PLAN

Lakeside Water District, CA

10375 Vine Street, Lakeside, CA 92040
(619) 443-3805, Fax: (619) 443-3690

June 2026

Prepared by:

West & Associates Engineering, Inc.
78 Anacapa Ct. Foothill Ranch, CA

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ACRONYMS

AAC	All-American Canal
Act	Urban Water Management Planning Act
AF	Acre-Feet
AFY	Acre-Feet per Year
AMI	Automatic Metering Infrastructure
AP	Allocation Plan
Basin	Santee-El Monte Basin
BDCP	Bay-Delta Conservation Plan
BMP	Best Management Practice
Board	Metropolitan Water District of Southern California's Board of Directors
CDP	Census Designated Place
CDPH	California Department of Public Health
CFS	Cubic Feet per Second
CII	Commercial/Industrial/Institutional
CIMIS	California Irrigation Management Information System
CRA	Colorado River Aqueduct
CUWCC	California Urban Water Conservation Council
CVP	Central Valley Project
CWC	California Water Code
DBPs	Disinfection Byproducts
DDW	Division of Drinking Water
DMM	Demand Management Measure
DOE	Department of Energy
DWSAP	Drinking Water Source Assessment and Protection
DWR	Department of Water Resources
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
Eto	Evapotranspiration
GPCD	Gallons per Capita per Day
GPF	Gallons per Flush

GPM	Gallons per Minute
GW	Groundwater
HECW	High Efficiency Clothes Washer
HEN	High Efficiency Nozzle
HET	High Efficiency Toilet
HEW	High Efficiency Washer
HR	Hydrologic Region
IID	Imperial Irrigation District
IPR	Indirect Potable Reuse
IRP	Integrated Resources Plan
IWA	International Water Association
JWPCP	Joint Water Pollution Control Plant
LRWSP	Local, Reliable Water Supply Program
MAF	Million Acre-Feet
MBR	Membrane Bioreactor
MCL	Maximum Contaminant Level
MG	Million Gallons
MGD	Million Gallons per Day
mg/L	Milligrams per Liter
µg/L	Micrograms per Liter
MOU	Memorandum of Understanding
MWD	Metropolitan Water District of Southern California
MWELO	Model Water Efficient Landscape Ordinance
MTBE	Methyl Tertiary Butyl Ether
NDMA	N-Nitrosodimethylamine
ng/L	Nanograms per Liter
NPDWR	National Primary Drinking Water Regulations
NTU	Nephelometric Turbidity Units
PCA	Possible Contaminating Activities
PCE	Tetrachloroethylene
PHETs	Premium High Efficiency Toilets
PHG	Public Health Goal
PPCPs	Pharmaceuticals and Personal Care Products
PVID	Palo Verde Irrigation District

QSA	Quantification Settlement Agreement
RHNA	Regional Housing Needs Assessment
SB	Senate Bill
SBx7-7	Senate Bill x7-7
SCADA	Supervisory Control and Data Acquisition
SCAG	Southern California Association of Governments
SDP	Seawater Desalination Program
SDWA	Safe Drinking Water Act
SMSS	Soil Moisture Sensor System
SWP	State Water Project
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TOC	Total Organic Carbon
ULARA	Upper Los Angeles River Area
ULFT	Ultra-Low-Flow Toilet
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
VOC	Volatile Organic Compound
WARN	Water Agency Response Network
WBIC	Weather-Based Irrigation Controller
WRP	Water Reclamation Plant
WSAP	Water Supply Allocation Plan
WSCP	Water Shortage Contingency Plan
WSDM	Water Surplus and Drought Management Plan
WSS	Watershed Sanitary Survey
WWTP	Wastewater Treatment Plant

1

Section 1: Introduction

In accordance with the Water Code, an Urban Water Management Plan is required to be updated every five years.

1.1. PURPOSE AND SUMMARY

This is the 2025 Urban Water Management Plan ("UWMP" or "Plan") for the Lakeside Water District (hereinafter "District"). This Plan has been prepared in compliance with the Urban Water Management Planning Act (Act), which was established in 1983 and has been codified into the California Water Code sections 10610 through 10657. A copy of the Act can be found in **Appendix C** to this 2025 UWMP.

As part of the Act, the legislature declared that waters of the state are a limited and renewable resource subject to ever increasing demands; that the conservation and efficient use of urban water supplies are of statewide concern; that successful implementation of plans is best accomplished at the local level; that conservation and efficient use of water shall be actively pursued to protect both the people of the state and their water resources; that conservation and efficient use of urban water supplies shall be a guiding criterion in public decisions; and that urban water suppliers shall be required to develop water management plans to achieve conservation and efficient use.

The Act requires "every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, to prepare and adopt, in accordance with prescribed requirements, an Urban Water Management Plan."

These plans must be filed with the California Department of Water Resources (DWR) every five (5) years, describing and evaluating reasonable and practical efficient water uses, reclamation, and conservation activities. The CWC mandates that each water supplier shall update its plan at least once every five years on or before July 1, in years ending in six and one.

Figure 1.1 UWMPs are Governed by State Law

The Act has been amended multiple times since its initial passage in 1983. A summary of the amendments is provided in **Figure 1.2**. The intent of the amendments was to broaden the scope of the UWMPs, encourage public participation, and add financial incentives to the UWMPs. A significant amendment to the Act was a 2009 amendment (Senate Bill SBx7-7) signed by former Governor Arnold Schwarzenegger. The Senate Bill, also known as the "Water Conservation Act" required that per capita water use within an urban water supplier's service area decrease by 20 percent by the year 2020 in order to receive grants or loans administered by DWR or other state agencies. Each urban retail water supplier developed water use "targets" for 2015 and for 2020. The "target" date for 2020 passed on December 31, 2020. Urban water suppliers whose 2020 actual water use does not meet the target requirements established by this bill are not eligible for state water grants or loans This included, but was not limited to, the following funding sources:

Amendments to the Act have added financial incentives to UWMPs

- **Drinking Water State Revolving Fund**
  Primarily a source for funds to help correct deficiencies
- **Proposition 1**
  Primarily a source for funds related to supplies & infrastructure
- **Proposition 50**
  Primarily a source for funds related to security & treatment technology
- **Proposition 84**
  Primarily a source for funds related to protection from pollution

Agencies that submit their UWMPs past the July 2026 deadline are still technically eligible for grants or loans, provided that the UWMP addresses the requirements of the Act. However, applications for such funds

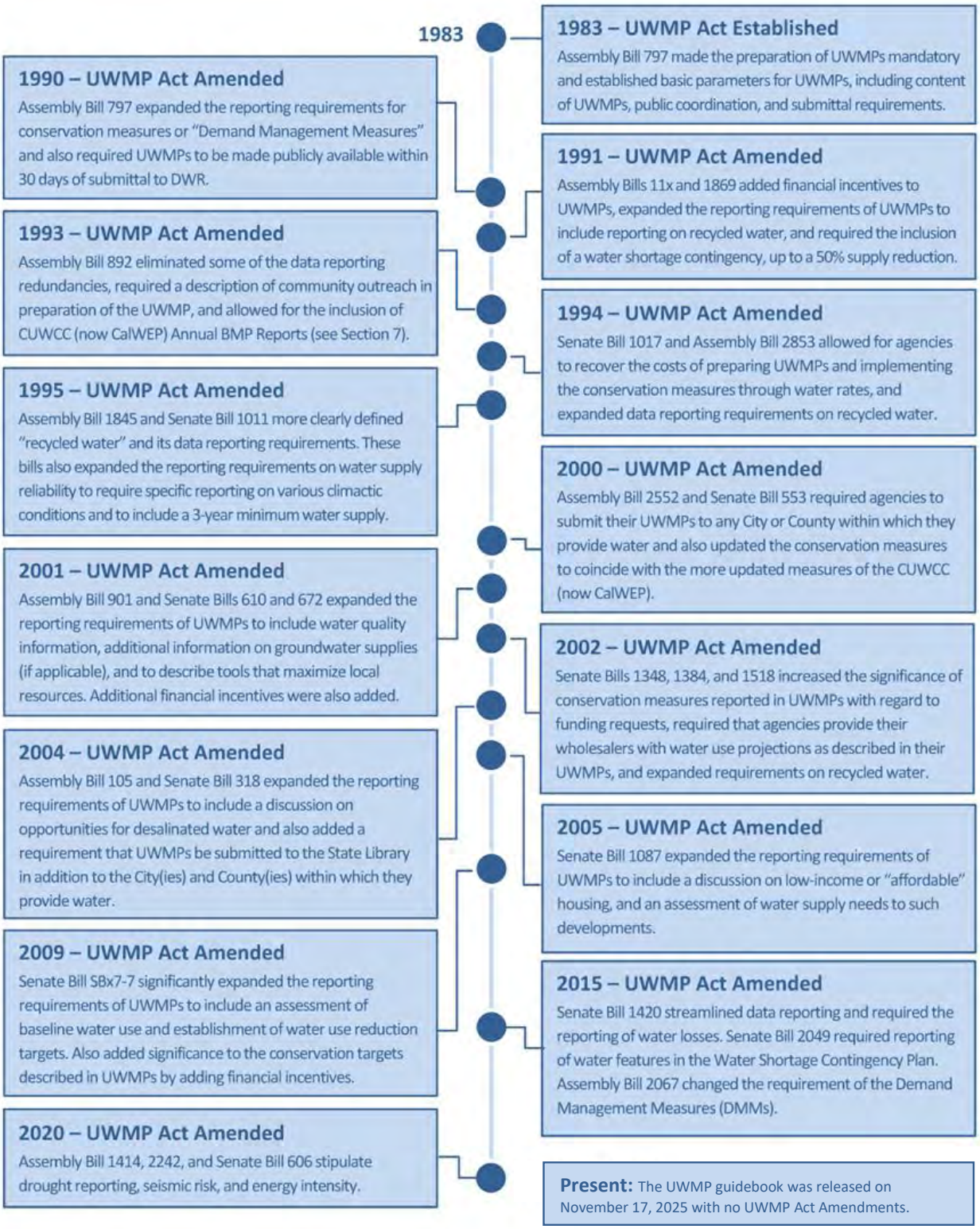

Figure 1.2 UWMP Act Establishment and Amendment

are subject to legal challenges coming from competing agencies for the same funding, if the competing agencies become aware of the timeframe in which an UWMP was submitted.

UWMPs are considered to be a foundation document and a source of information for Water Supply Assessments (Senate Bill 610) and Written Verifications of Water Supply (SB 221). In addition, an UWMP may serve as a long-range planning document for water supply, a source of data for development of a regional water plan, and a source document for cities and counties as they prepare their General Plans. These planning documents are linked, and their accuracy and usefulness are interdependent.

One of the primary objectives of the Act is the assessment of demands and supplies over a 20-year or a 25-year planning horizon under normal rainfall conditions, as well as under various drought conditions. The Act also requires water shortage contingency planning and drought response actions to be included in the UWMP. In short, this Plan is a management tool that provides a general, long-term framework for action, rather than a detailed blueprint for supply and demand management. This Plan evaluates the District's supply and demand projections over a 25-year planning horizon, and what mix of programs should be explored for ensuring that such water will be available. As part of the District's past and current water conservation policies, the District is currently implementing many facets of this plan already to achieve its water conservation goals.

1.2. COORDINATION

The process of preparing and submitting an UWMP is a transparent process that requires opportunities for outside-agency and general public involvement. In preparing this 2025 UWMP, the District has encouraged broad community participation. The District notified the agencies that the District interacts with more than 60 days in advance of the District Board's adoption of the 2025 UWMP. The District also made the draft 2025 UWMP available at the District's Board Room and on the District's website, leading up to a public hearing on the 2025 UWMP. Notices of the public hearing were published in the local press and on the District's website for a two-week period. On June 2, 2026, the District held a noticed public hearing to review and accept comments on the 2025 UWMP. Following the public hearing, the District officially adopted the 2025 UWMP through board resolution. A copy of the board resolution adopting this UWMP is included in **Appendix A.**

The District's 2025 UWMP is a collaborative effort involving its own staff, outside agencies, and the general public.

Table 1.1: Coordination and Public Involvement

Agency	Participated in Plan Preparation	Contacted for Assistance	Commented on Draft	Notified of Public Hearing	Attended Public Hearing
District Staff				x	
District Board				x	
Helix Water District				x	
Padre Dam Municipal Water District				x	
City of San Diego				**x**	
San Diego County				x	
San Diego County Water Authority				x	
Interested General Public				x	

Notes:

1. "60-Day" notice letters were sent out to all agencies (except the Districts own) as required by CWC § 10621(b):
2. 2-week and 1-week notices were published in the local press.
3. **Appendix G** contains copies of the 60-day notice and the 2-week and 1-week notices.

As required by the Act, the 2025 UWMP is being prepared by the District and will be submitted to DWR, the California State Library, and any city, special district, or county within which it provides water to no later than 30 days after adoption. The 2025 UWMP will be available to the public during normal business hours within 30 days of submitting the 2025 UWMP to DWR.

1.3. DWR UPDATES FOR THE 2025 UWMPS

There have been minor changes to the CWC affecting the 2025 UWMPs. The changes include the following:

- Clarified Reporting Requirements for SBx7-7: Agencies must provide a description in the 2025 UWMP how their water use goals of the 20x2020 were met. An urban retail water supplier's failure to meet those goals will establish a violation of law for purposes of any state administrative or judicial proceeding. If the agency did not achieve its targeted reduction in 2020, the agency must show in its 2025 UWMP whether it met their 2020 Target in 2025 to be eligible for state funds. Currently, the CWC does not set an end date for reporting on a supplier's progress in meeting the 2020 Target. (CWC § 10608.40)

- **Water Losses:** Retail Suppliers must indicate the quantity of water losses for five years by reporting data from their Validated Water Loss Audits, discuss their progress toward compliance with the 2028 Water Loss Standard, and show whether they met the Water Loss Performance Standard enacted by the State Water Resources Control Board (SWRCB). (CWC § 10631 (d) (3) (C), SB 1414, 2019). Suppliers can simply provide a link to their water loss reports submitted to DWR's Water Loss Audit Program.

- **Updates to Demand Management Measures (DMMs):** Retail Suppliers with an annual actual water use above their Urban Water Use-Objective (UWUO) must include a narrative describing additional DMMs the supplier plans to use to achieve its UWUO by January 1, 2027. (CWC § 10609.25, AB 1414, 2019)

- **UWUO and Water Use Reporting:** The standard for indoor residential water use from January 1, 2025 to January 1, 2030 was lowered from 52 to 47 Gallons per Capita per Day (gpcd). Until January 1, 2025, the standard was 55 gpcd. Beginning January 1, 2030 the standard was lowered from 50 to 42 gpcd. DWR, in coordination with SWRCB, will conduct an investigation to determine if the date for the 2030 indoor residential use standard will be changed. The District won't be subject to enforcement pursuant to this chapter solely for failing

to meet the indoor residential use standard. (CWC § 10609.4).

- **Irrigation of Nonfunctional Turf:** ”Functional turf” is ground cover surface of turf located in a recreational use area or community space. ”Nonfunctional turf” means any turf that is not functional turf, and includes turf located within street rights-of-way and parking lots. Turf enclosed by fencing or other barriers to permanently preclude human access for recreation or assembly is Nonfunctional turf. The use of potable water to irrigate nonfunctional turf is wasteful and incompatible with state policy relating to climate change, water conservation, and reduced reliance on the Sacramento-San Joaquin Delta ecosystem (CWC § 110). The use of potable water to irrigate Nonfunctional turf on all properties owned by the District are to be phased out by January 1, 2027. All other Commercial, Industrial, and Institutional (CII) properties are to be phased out by January 1, 2028. After which it will be prohibited with a few exceptions (CWC § 10618.14). The website https://saveourwater.com/ provides information and resources on converting nonfunctional turf to native vegetation.

The use of potable water to irrigate nonfunctional turf is wasteful.

- **Definitions:** New definitions were added or existing definitions were modified, which include Nonfunctional Turf, CII water use, Large landscape, Gross water use, Potable reuse, Urban water use objective, Affordable housing, and Disadvantaged community to name a few (CWC § 10608.12).

In addition to the above, there are several optional or voluntary categorical and data reporting changes to the UWMP Act. These include an optional Planning Tool that suppliers can use to report and assess water use and supply in order to better conduct the Reliability Assessment and Drought Risk Assessment, a Potable and Non-Potable Planning Tool, Potable and Non-Potable Submittal Tables, as well as various optional data reporting.

1.4. UPDATES TO THE DISTRICT’S UWMP

In addition to required updates described in the previous section, the District’s 2025 UWMP has undergone some changes from the 2020 UWMP. A summary of the key changes to the UWMP are as follows:

- **New Format:** Format of the UWMP has been changed to include a new look and new arrangement of sections. The new arrangement helps the discussion of certain topics which precede other topics. See Section 1.5 for the format of this 2025 UWMP.

- **DWR & Water Code:** A listing of DWR-required UWMP updates (see previous Section).
- **District Development Growth:** An updated look at development which took place in the District since the 2020 UWMP.
- **Water Sources and Supplies:** A broader, more in-depth discussion of water sources and supplies.
- **Recycled Water:** An updated look at recycled water opportunities in the District.
- **Water Quality:** An update to new regulations and contaminants effecting water quality and treatment.
- **Water Use:** Updated information on recent water use quantities and a deeper discussion on water use parameters.
- **Supply v Demand:** Updated information on projected supplies vs demands, and a discussion on recent regional droughts affecting the District. There is also an expansion on the discussion of the District's source water reliability.
- **Contingency Planning:** Updated information on the District's contingency plans, including the District's Ordinances.
- **Conservation Measures:** Updated information on the District's conservation measures, which reflect the previous (2020) changes by DWR.

In addition to the above changes, there are multiple minor changes. The changes reflect both those that are required by the CWC and those that are voluntarily included for the benefit of the District.

1.5. FORMAT OF THE 2025 UWMP

The information contained in this 2025 UWMP corresponds to the items in the UWMP Act and other amendments to the Water Code. The sections of the UWMP are as follows:

Section 1 - Introduction

This section describes the UWMP Act, the UWMP preparation and adoption process, updates to the UWMP, and a lay description of this entire document.

Section 2 – Service Area Description

This section outlines the history and development of the District and the District's water supply system, a description of its existing service area, the local climate, population served, and some basic statistics on the District's water distribution system.

Section 3 – Water Sources & Supplies

This section describes the existing potable water supplies available to the District,

including groundwater produced from the Santee-El Monte Basin and imported water from the San Diego County Water Authority (CWA). In addition, this section evaluates potential future water supply sources.

Section 4 – Recycled Water Opportunities

This section discusses potential recycled water supplies, an assessment of potential customers, and methods to expand the use of recycled water.

Section 5 – Water Quality

This section discusses the quality of the District's potable water supply sources, including imported water and groundwater. This section also discusses drinking water standards and the effect that water quality has on management strategies and supply reliability.

Section 6 – Water Use

This section describes past, current and projected water usage within the District's service area. Past and projected water use in this section is broken down by sector. This chapter also discusses the requirements of the 2009 Water Conservation Act (SBx7-7), including the 2020 Water Use Targets.

Section 7 – Reliability Planning

This section presents a drought risk assessment of the District's water system. The drought risk assessment is an assessment of the reliability of the District's water supplies by comparing projected future water demands with expected available water supplies under three different hydrologic conditions: normal year; a single dry year; and multiple dry years. This 2025 UWMP concludes that if projected imported and local supplies are developed as anticipated, no water shortages are anticipated in the District's service area during the planning period.

Section 8 – Contingency Planning

This section describes the District's response plan to water shortages, as well as those efforts that will be utilized in the event of water supply interruptions, such as power outages, earthquakes, or droughts. This section also describes regional response efforts to water supply interruptions.

Section 9 – Conservation Measures

This section addresses the District's compliance with water conservation measures that correspond to the seven (7) Demand Management Measures (DMMs) described in the 2025 UWMP Guidebook, which were previously the 14 DMMs listed in the Act. The DMMs also correspond to the current Best Management Practices (BMPs) from the California Water Efficiency Partnership (CalWEP).

Appendices

The Appendices contain references and specific documents that contain reference data used to prepare this 2025 UWMP.

1.6. LAY DESCRIPTION

To facilitate effective and efficient management of water supplies, and in compliance with the UWMP Act and the Water Conservation Act of 2009, the District has prepared this 2025 UWMP. This UWMP includes background information regarding the District's history, water system, and water supplies. This UWMP also analyzes recent water demands and projects future water supply capacity and water demands through 2050. The effects of water quality, drought, and emergencies on the District's water supply reliability are also analyzed.

As indicated by **Section 7** of this UWMP, the District does not expect to have a water supply shortage through 2050. Furthermore, this UWMP concludes that the District's water supplies, which are obtained from local groundwater basins and wholesale agencies, are resilient to droughts. A basic overview of the District's water system can be found in **Section 2**. Water quality concerns do have an occasional impact on the consistency of groundwater supplies, but the District's groundwater quality is not expected to be affected. These are described in **Section 5**.

This 2025 UWMP recommends that the District implement water operation management tools that maximize the use of local groundwater production and imported water to meet its water demands. This UWMP also recommends conservation tools that will enable the District's residents to conserve water and maximize water use efficiency. These are described in **Section 9**.

If the water consumption rates in the District decrease as this UWMP projects, the District can expect to have an adequate water supply in future years. This is in spite of a projected population growth over the next 25 years. Finally, this UWMP recommends that severe droughts or sudden supply interruptions be addressed by following the criteria of the Water Shortage Contingency Plan (WSCP), as described in **Section 8** of this UWMP.

Since UWMPs are due for revision every five years, this UWMP is projected to be in effect until the year's end of 2030. At that time the District's 2030 UWMP will begin development and adoption.

2

Section 2: Service Area Description

Originally as Lakeside Irrigation District, the term "Irrigation" was officially replaced with "Water" in 1980.

2.1. DISTRICT AND WATER SYSTEM HISTORY

The District was organized as the Lakeside Irrigation District in 1924. Its source of water was ground water and a connection to the Cuyamaca Water Company. The District's function was primarily as an agricultural water provider. In 1980, the District changed its name to the Lakeside Water District. The District is a single purpose agency providing retail domestic water service. In 2006 The District consolidated with Riverview Water District which was formed in 1916 as Riverview Farms Mutual Water District. In 1954 Riverview Water District became a local Public Agency and the District began to purchase water from Metropolitan Water District via Padre Dam Municipal Water District (Padre Dam), who was the wholesale distributor and the water supply came from the San Diego County Water Authority (CWA) and the R. M. Levy Water Treatment and Filtration Plant, owned and operated by the Helix Water District. The District has a 5-member Board of Directors who are elected at-large and participate in the management of the District.

2.1.1. Early Stages

The District was formed in August 1924. At that time, its mission was to provide water to the optimistic 90 customers living in the historical town center of The District. By 1925, the Board had passed a $35,000 bond to fund its first infrastructure projects: a 200,000 gallon reservoir located on Castle Court Drive and 15,500 linear feet of water

main through the downtown streets of Julian, Maine, Park(side), Laurel, Sycamore (Lakeshore) and River Street. The sources of supply were from the Lakeside Heights Flume and Pipeline Company, and a well located along the San Diego River where the District's offices are currently located on Vine Street.

Figure 2.1 100 Year Anniversary Photo

When The District was founded, Riverview Mutual Water Company and Lakeside Farms Mutual Company had already been in existence for a number of years, providing water to the farms in their respective service areas. Water was plentiful in the river valley and large concrete pipes were installed throughout the area to provide the water needed to serve the area's farmers.

In the late 1800s and early 1900s, the District's area was the hub of activity in East County. Home to the famous Lakeside Inn, the area was a thriving tourist destination. The District installed pipelines and added customers until the Great Depression of the 1930s. The optimism turned to a grim seriousness that proved to be a challenge for the area's water agencies. Keeping customers and maintaining revenue proved difficult to do. The District struggled, but as it moved into the 1940s and, with the war effort ramping up, San Diego and surrounding areas began growing again.

The City of San Diego completed El Capitan Reservoir in 1935 and, less than ten years later, a lengthy drought had dropped groundwater levels, which forced the District to look beyond local supplies to keep up with the growing demand. In 1944 The District was one of nine (9) original members to form the San Diego County Water Authority. This enabled county water agencies to divide up the area's secured water rights from the Colorado River and receive delivery through a newly built aqueduct with only three weeks local supply remaining.

A firm entitlement to imported water, allowed The District's population to increase rapidly, requiring more pipelines, reservoirs, and pump stations to serve the growing service area. As the next four decades of growth continued, the water system evolved and expanded into the system it has today.

Currently, it has approximately 125 miles of pipeline, ranging in size from 4-24 inches, twelve water storage reservoirs with a capacity of 14 million gallons, twelve pump stations, and one active groundwater

treatment plant. The current replacement value is estimated at approximately $160 million. With this large infrastructure in place, the District developed a 100-year "Asset Management Plan" in 2014 to maintain the infrastructure for safe and reliable operation and to continue the high level of service the District's customers demand.

2.2. CURRENT WATER SERVICE AREA

The District's service area spans approximately 20 square miles of the unincorporated community of Lakeside, including Eucalyptus Hills, Moreno Valley and Muth Valley, as shown in Figure 3-1. An elevation gain from Lakeside's water connections with CWA to its Reservoirs' is only 575 feet but requires 11 pumping stations because of the hilly terrain.

2.3. LAND USE & ECONOMY

The District is located in San Diego County. San Diego County encompasses an area of 4,500 square miles or 2.9 million acres, and is bordered on the west by Pacific Ocean, on the north by Orange County, on the South by Mexico, and on the east by the Imperial County.

The District currently provides water service to over 6,850 accounts. The District's service area is for the most part built-out with densification accomplished through single-family lot splits and conversion of single-family to multi-family dwelling units.

2.3.1. District Land Use

Land use data from the regional growth forecast was overlaid with the District's service area using a geographical information system (GIS). This provided for a summary of existing and projected land uses within the boundaries of the District. The data presented is for both existing land use as well as 2050 land use projections derived from SANDAG's regional growth forecast. Approximately 86% of the District's existing service area is dedicated to single-family residential land use and 8% is multi-family categories and is projected to increase by 2050. Growth in residential sectors will be driven by development of existing vacant lands and by redevelopment infill. Existing commercial land use data accounted for 4.5% and Governmental was 1.5% with little change projected.

2.4. CLIMATE

The District's customers enjoy a Mediterranean climate with average annual high and low temperatures of 78 degrees and 52 degrees. The annual precipitation is approximately 12 inches and over 80% of the precipitation occurs between December and March. Winter temperatures occasionally dip below freezing and summer temperatures often exceed 90 degrees Fahrenheit. The District's service area is entirely within an inland region of eastern

San Diego County. Climate is warm and arid as is characteristic of the inland areas of the county. Water demands are generally dependent on weather patterns. **Table 2.1** lists the historical average rainfall for the District:

Table 2.1 Historical Climate (1967-2013)
Lakeside 2 E, California (044628)
(www.wrcc.dri.edu)

Month	Average Rainfall (in)
Jan	2.79
Feb	3.45
Mar	2.97
Apr	1.14
May	0.32
Jun	0.12
Jul	0.07
Aug	0.09
Sep	0.26
Oct	0.76
Nov	1.49
Dec	2.14
Annual:	**15.58**

Evapotranspiration (ETo) data was obtained from the California Irrigation Management Information System (CIMIS), which maintains measuring stations throughout the state of California. The District uses CIMIS stations (cimis.water.ca.gov) at Otay Lake (#147) and at Escondido (#153) for the western and eastern portions of the District, respectively, as they are adequate representations of the District's weather. The Otay Lake and Escondido stations annual ETo of 51.49 inches and 54.19 inches, respectively, based on recorded data that spans a minimum of the last five years prior to 2020. Recent ETo and rainfall for the District is listed in **Table 2.2 and Table 2.3**:

Table 2.2 Recent Climate (2025)
CIMIS Station 147 (Otay Lake – South Coast Valleys)

Month	Rainfall (in)	ETo (in)
Jan (2025)	0.67	2.89
Feb (2025)	1.04	2.81
Mar (2025)	3.29	3.73
Apr (2025)	0.39	5.18
May (2025)	0.20	5.26
Jun (2025)	0.05	5.57
Jul (2025)	0.00	6.24
Aug (2025)	0.10	6.14
Sep (2025)	0.22	4.98
Oct (2025)	0.51	4.22
Nov (2025)	1.54	2.87
Dec (2025)	0.99	2.61
Totals:	**9.0**	**52.5**

Table 2.3 Recent Climate (2025)
CIMIS Station 153 (Escondido SPV – South Coast Valleys)

Month	Rainfall (in)	ETo (in)
Jan (2025)	0.48	3.11
Feb (2025)	1.55	2.77
Mar (2025)	3.03	3.54
Apr (2025)	0.26	4.87
May (2025)	0.15	5.55
Jun (2025)	0.12	6.37
Jul (2025)	0.87	7.37
Aug (2025)	0.29	6.80
Sep (2025)	0.42	5.00

Month	Rainfall (in)	ETo (in)
Oct (2025)	0.39	3.94
Nov (2025)	1.22	2.52
Dec (2025)	0.80	2.19
Totals:	**9.6**	**54.03**

The National Oceanic and Atmospheric Administration (NOAA) has also been recording historical temperature and precipitation measurements within the District's service. **Table 2.1** lists recent total rainfall for the District:

Table 2.4 NOAA Recent Climate (2014-2025)

LAKESIDE 4.1NNE (US1CASD0103)

(www.ncdc.noaa.gov)

Year	Total Rainfall (in)
2014	3.7
2015	11.0
2016	14.1
2017	13.4
2018	7.0
2019	17.0
2020	15.6
2021	9.8
2022	9.3
2023	17.0
2024	15.7
2025	12.6
Average:	**12.2**

As the State of California and the San Diego County region has undergone a several-year drought, rainfall has been much lower in the District. Southern California is also expected to be Transitioning out of a weak La Nina into El Nino by the end of 2026.

2.4.1. Climate Change

The DWR Guidebook requires water suppliers to include a discussion of climate change in their UWMPs, specifically with regard to Drought Risk Assessments (DRA). **Section 7** of this UWMP provides an overview of droughts.

The rise of anthropogenic activities producing carbon dioxide in the world has changed the earth's climate by emitting greenhouse gasses responsible for global warming. This has resulted in extreme weather events occurring more frequently. The severity and frequency of climate change impacts on temperature and precipitation patterns can be difficult to forecast due to dramatic shifts in weather patterns as a result of increased concentrations of carbon dioxide in the atmosphere. While the precise timing, severity, and regional impacts of these temperature and precipitation changes are uncertain, climate researchers have identified several important issues of concern for water planners in California.

The climate change impacts of concern include increases in temperature, precipitation pattern changes. and see-level rise. More winter precipitation falling as rain than snow leads to reduced snowpack water storage, reduced long term soil humidity,

reduced groundwater and downstream flows, and reduced imported water deliveries. Higher temperatures alter evapotranspiration rates and growing seasons become longer. Precipitation pattern changes leads to increase flooding from intense storms. Although the extent of these changes is uncertain, the District is already planning ahead to ensure long lasting reliability of its source for their customers.

Historical temperature and precipitation measurements recorded by NOAA for the District's area since 1899, as shown in the District's 2020 UWMP Table 3-1, demonstrate measured effects of climate change. It can be observed in that the temperature minimums and maximums are trending upwards, whereas the precipitation averages are trending downwards.

On behalf of its member agencies such as the District, the CWA recognizes the importance of adapting to climate change and being a leader in sustainability and natural resource stewardship. CWA has long supported efforts to develop renewable energy sources that are compatible with water operations. This has included investments to improve operational effectiveness, reduce greenhouse gases, and decrease CWA and member agency costs to help stabilize water rates. In June 2019, CWA's Board of Directors adopted an energy management policy that focuses on energy supplies, system operations, energy generation and storage, energy efficient equipment and features, collaborative relationships, and government relations. CWA recognizes the importance of adapting to climate change and is a leader in sustainability and natural resource stewardship. CWA is an active and founding member of the Water Utility Climate Alliance, which is dedicated to enhancing climate change research and improving water management decision making.

The key issues identified by CWA in its UWMP include advocating for improvement in modeling to provide precipitation data on a local and regional scale, encouraging focused scientific research on climate change to identify the impacts on the region's water supply, and partnering with other water utilities to incorporate the impacts of climate change on water supply planning and the development of decision support tools, all of which are described in CWA's UWMP. CWA has worked to analyze projected climate change impacts on water demands on behalf of its member agencies. Using advances in climate modeling that have occurred since the release of its 2015 UWMP, CWA adopted a qualitative approach that uses a manageable number of climate change scenarios to develop a range of potential demands. The scenarios account for the periods of 1981-2020, 2040-

2060 and 2080-2099. Projected changes in temperature and precipitation were averaged within each scenario. Although no dramatic shifts in seasonal patterns of precipitation and average maximum daily temperature for the San Diego region were observed under any of the scenarios, on average the annual amounts of precipitation tend to be more concentrated in the winter with lesser proportions of total annual precipitation occurring in the spring and fall. It is noted that two of the climate change scenarios analyzed by CWA resulted in average annual precipitation estimates for 2040-2060 lower than the 1980-2010 historic average. Further, CWA indicates in Section 2.4.4 of its UWMP, all analyzed scenarios indicate warming on average relative to historical climate conditions, and the interaction to temperature and precipitation projections dictate the estimated impact on CWA's baseline demand forecasts of its member agencies, including that of the District. In 2013 CWA published its latest Regional Water Facilities Optimization and Master Plan, hereafter referred to as "RWF Plan". This document is available for review online at CWA's website (www.CWA.org/master-plan-documents) and is updated every 10 years, with the next update due to be completed in 2023. In Section 2.3.2 of the RWF Plan, CWA noted that impacts from climate change are not likely to be significant during the period of 2011 to 2035, which is the most current data available that is included in the projection time period under consideration for this update of District's UWMP (2025 to 2050). Further, CWA indicates in the RWF Plan that the primary effects of climate change will be experienced as shortages of imported water supply sources and not as significant increases in water demands.

It is important to note that the potential for impacts of imported supplies across multiple dry years in accordance with CWC 10635(a) and allocations to its member agencies, are accounted for by CWA in its UWMP. In accordance with CWC 10635(b), CWA's projections in its 2020 UWMP for the District for demands for five consecutive dry years are addressed by the District's drought risk assessment as required by CWC 10635(b). The projected dry year demands for the District, and measures established for addressing dry year projections, are discussed in **Chapters 7** and **8** in this UWMP in accordance with CWC 10632(a).

2.5. POPULATION

2.5.1. Service Area Population

According to the most recent population figures from the Water Loss Audit and Electronic Annual Report, the District's current 2025 population is 35,500; however, this value has been used for these reports since at least 2023 and SWRCB, the Division of Drinking Water (DDW) Records as of 6/21/2019, and it is unclear how these

values were determined. Therefore, the number of service connections multiplied by the average persons per connection (5.0) was used to more accurately represent the true service area population, as number of service connections has been more closely accounted for. The total number of service connections by sector is shown in **Table 6.3.**

The population has experienced stagnant growth from 2021 through 2025, which was even more stagnant from 2015 through 2020. **Table 2.4** lists the District's recent and current (2025) overall populations:

Table 2.5 Lakeside Water District Overall Population

Year	Population
2021	34,740
2022	34,825
2023	34,790
2024	35,310
2025	35,040

Table 2.4 shows the District's population climbing over time to 35,040 in 2025.

2.5.2. District Population Forecasts

The District currently (2025) serves 7,008 accounts, which multiplied by 5 (five) persons per connection, brings the population to 35,040. Population projections for the District's service area are estimated with little to no growth because the district area is 95% built out. The population within the District's service area is diverse across social, economic, and demographic factors that demonstrate a wide range of communities must be considered when policy changes are made by the District. Customer economic factors within the district range widely.

2.5.3. Adjusted Population Forecasts

Future service area populations can be determined based on the projected number of service connections multiplied by the average persons per connection (5.0). The District determined an average growth factor of fifteen (15) connections per year. Then the projected number of service connections is multiplied by the average persons per connection (5.0) to determine the projected population, as shown in **Table 2.6**.

There is no industry in the District's service area and there are approximately 5 percent commercial and/or institutional accounts. The District does not anticipate any significant increases in employment for the area based on the land availability and the zoning. Densification will occur as single-family lots are converted to multi-family dwellings where it is allowed by zoning classification and the governing agency.

There is no major planned development in Lakeside that would impact water supplies.

Growth in residential sectors may be added by development of existing vacant lands and by redevelopment, but the District does not foresee any major increase in population nor the supply needs.

Table 2.6 Lakeside Water District Service Area Projected Population

Year	Population
2025	35,040
2030	35,415
2035	35,790
2040	36,165
2045	36,540
2050	36,915

As the District does not expect to grow in size significantly, the District may not likely experience periodic spikes in the number of daytime or short-term residents.

2.6. WATER SYSTEM

A basic overview of the District's water system is provided herein. More information on the District's water sources, water treatment, and water demands can be found in **Sections 3 through 6** of this report. As this report is more of a water-resource-management planning document, it does not provide a great degree of technical or engineering detail on water system components.

2.6.1. Water System Background

Since its founding in 1924, the District' has owned and operated a water system that has served the District's developed areas within its main core. Due to the lengthy drought around 1935, the water system would not be able to supply the increasing demand. The District joined the San Diego Water Authority to divide the areas secured rights from the Colorado River.

The District's water distribution system is a Grade 4 system including 125 miles of water mains, 11 reservoir tanks with a total storage capacity of 14 million gallons, and 11 pumping stations.

Figure 2.2 Valle Vista Reservoir No. 2

The District also has two well fields. The Riverview well field has 4 wells which have been inactive since 2007 due to MTBE Contamination and high levels of total dissolved solids (salt). The Vine Street Well Field has 2 active wells that produce approximately 230 to 350 gpm or 317 to 565 acre-feet per year (AFY), or about 16% the District's supply.

2.6.2. District Water System Overview

Overall, the District's water system consists of the following components:

- Groundwater Wells
- Wellhead Treatment
- Water Distribution Pipeline Network
- Emergency Transfer Interties
- Water Storage Facilities
- Booster Pump Stations
- Imported Water Connections

The District distributes water to about 7,000 service connections through over a 125-mile network of distribution mains. The water system is divided into 7 main pressure zones (**Figure 2.3**) served by 11 pumping stations and 11 storage reservoirs, totaling 14 million gallons.

2.6.3. Recent Pipeline Replacement

According to the District's 2024 Annual Water Quality Report (5.2.5 District Standards), the District's crews completed 1,800 lineal feet of 6" cement pipeline replacement in 2024. The projects were located on Toyon Hills Drive and Woodside Ave. Toyon Hills Drive, in Eucalyptus Hills, involved replacing 60-year-old asbestos concrete pipe (ACP) with 8-inch PVC pipe. As residents in the area know, the District has experienced many pipeline failures over the past 15 years, and coupled with the inconvenience and associated system pressure problems and water quality concerns, the District implemented an aggressive replacement timeline to replace the pipe with District crews.

A second project accomplished with District crews was located on Woodside Avenue at Lakeside Middle School, and was required due to a County of San Diego street improvement project. This project realigned and lowered a mix of 4" ACP and 6" ACP, with 6-inch PVC pipe.

2.6.4. Groundwater and Imported Water

The District's sources of potable water supply are groundwater pumped from the Santee-El Monte basin and aquifer which is comprised of loose alluvial sediments that extend along the San Diego River Valley Basin and imported water from CWA (San Diego County Water Authority). The San Diego River Valley Basin is roughly 9,890 acres and is located in the eastern portion of the greater San Diego Metropolitan area.

The District owns and operates eight (8) production wells located in Vine Street Well Field and Riverview Well Field. Lakeside Water District's Asset Management Plan 2024 provides information of current active groundwater wells. The local water generated from Vine Street Well Field has 2

active wells that had an initial operating capacity of 850 gpm or 1,371 AFY at the time of installation, but per the Lakeside Water District's Asset Management Plan 2024 current operating capacity ranges from 230 to 350 gpm or 317 to 565 AFY.

Third and fourth wells exist but are currently inactive because of high TDS (Total Dissolved Solids) and iron bacteria levels. There are four additional inactive wells located at the Riverview Well Field. The Asset Management Plan indicates that the District has no plans to upgrade the six wells to active status at this time.

The District purchases water from CWA, which buys certain percentage of amount from MWD. MWD imports water through the Colorado River Aqueduct and facilities of the State Water Project (SWP). The District currently imports treated potable water through the CWA 12" metered connection with Helix Water District's 54" line at Channel Road through an 11.7 mgd or 13,106 AFY maximum connection. The District also has two emergency connections to Padre Dam's wholesale system and one emergency connection with Helix Water District on Melrose Street.

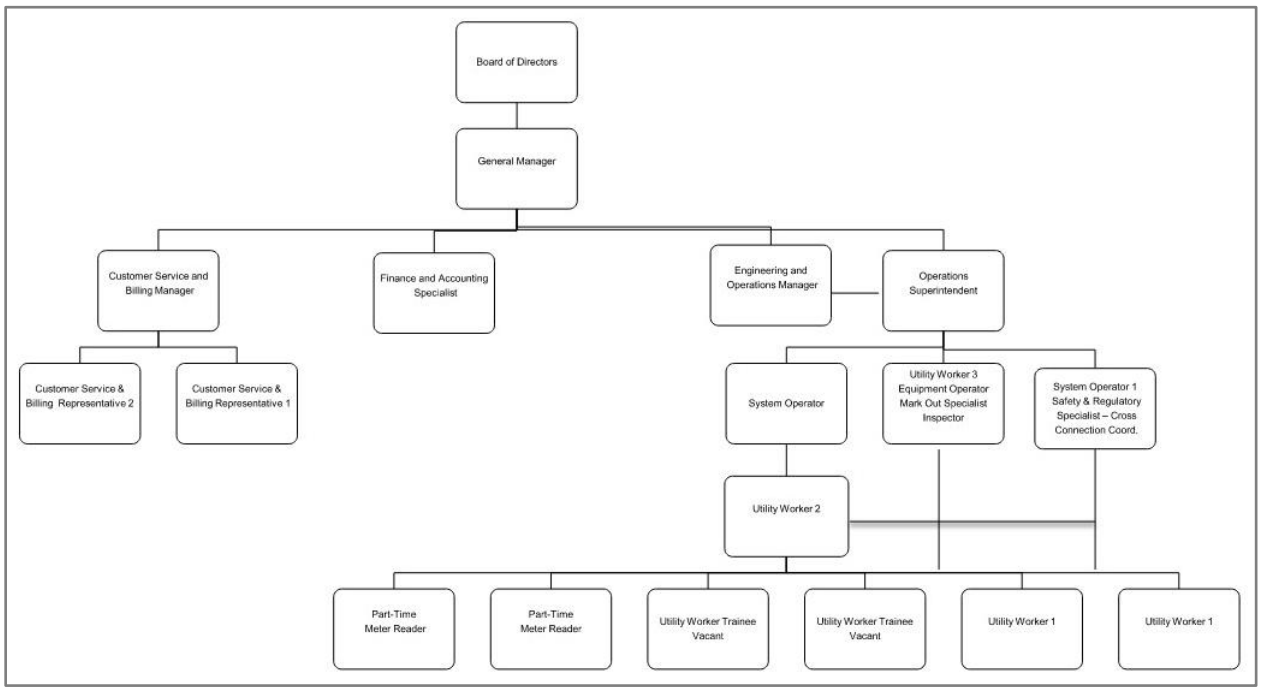

Figure 2.3 Lakeside Water District Organization Chart (2026)

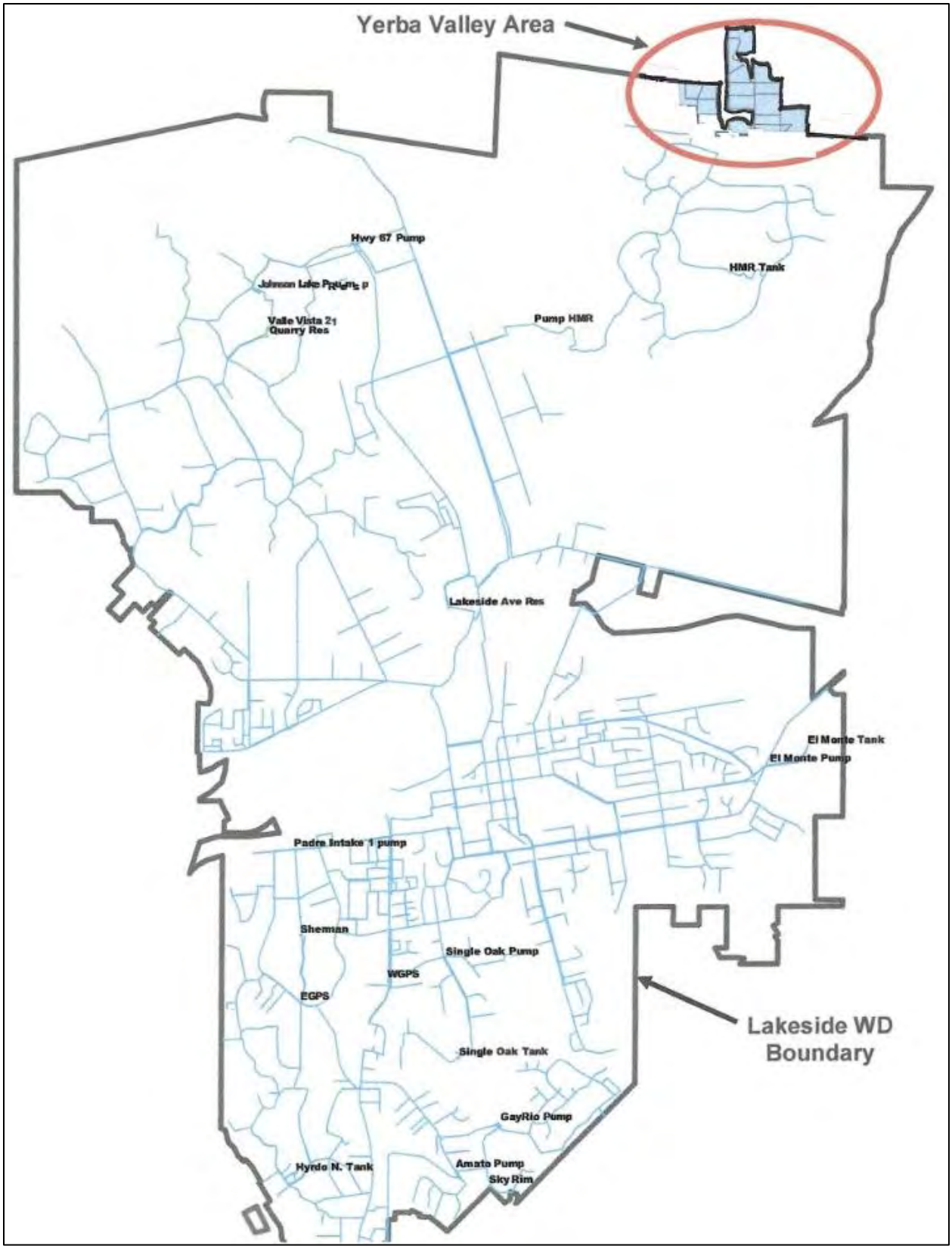

Figure 2.4 Lakeside Water District Service Area Map

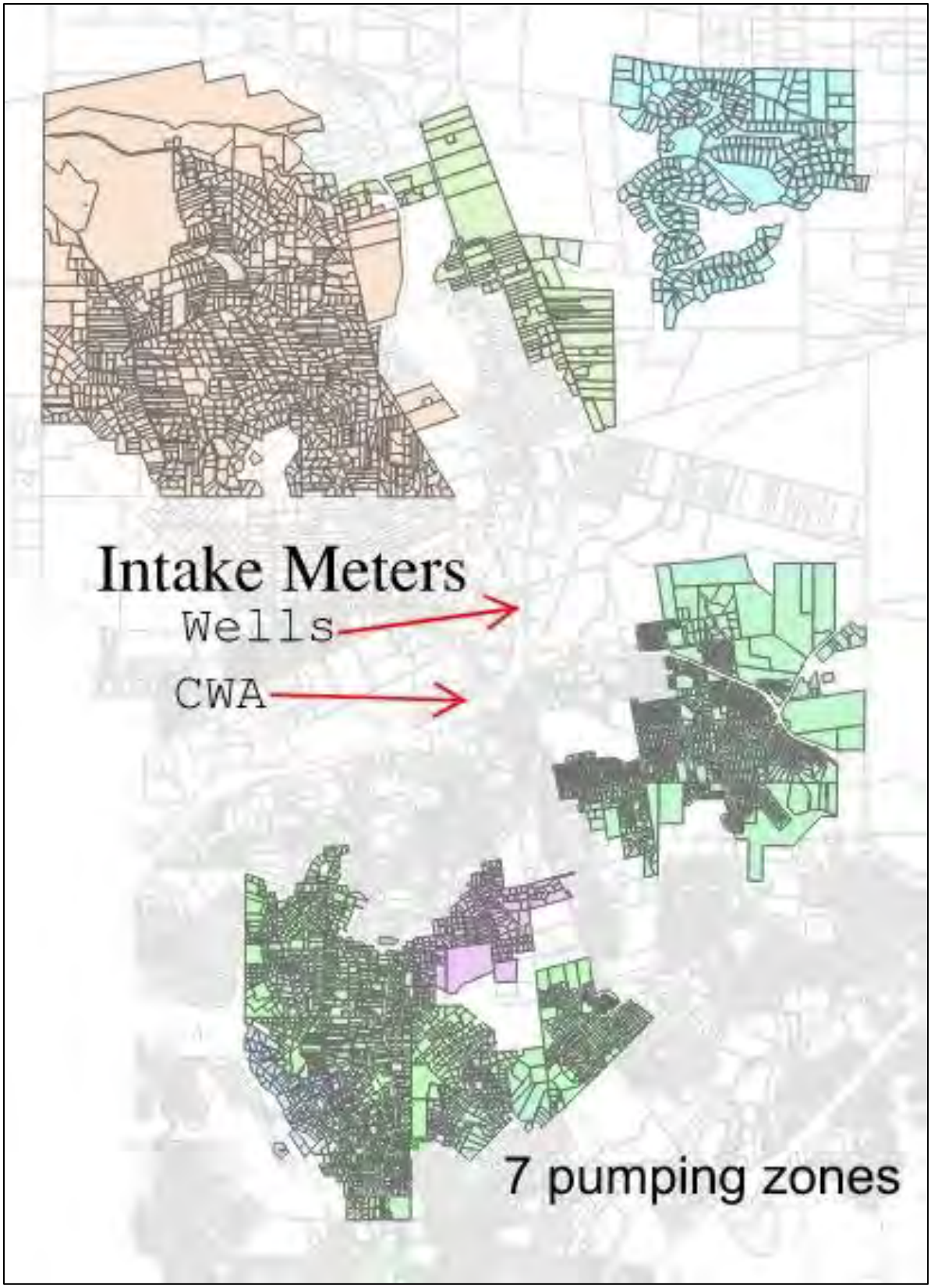

Figure 2.5 Lakeside Water District Pressure Zones

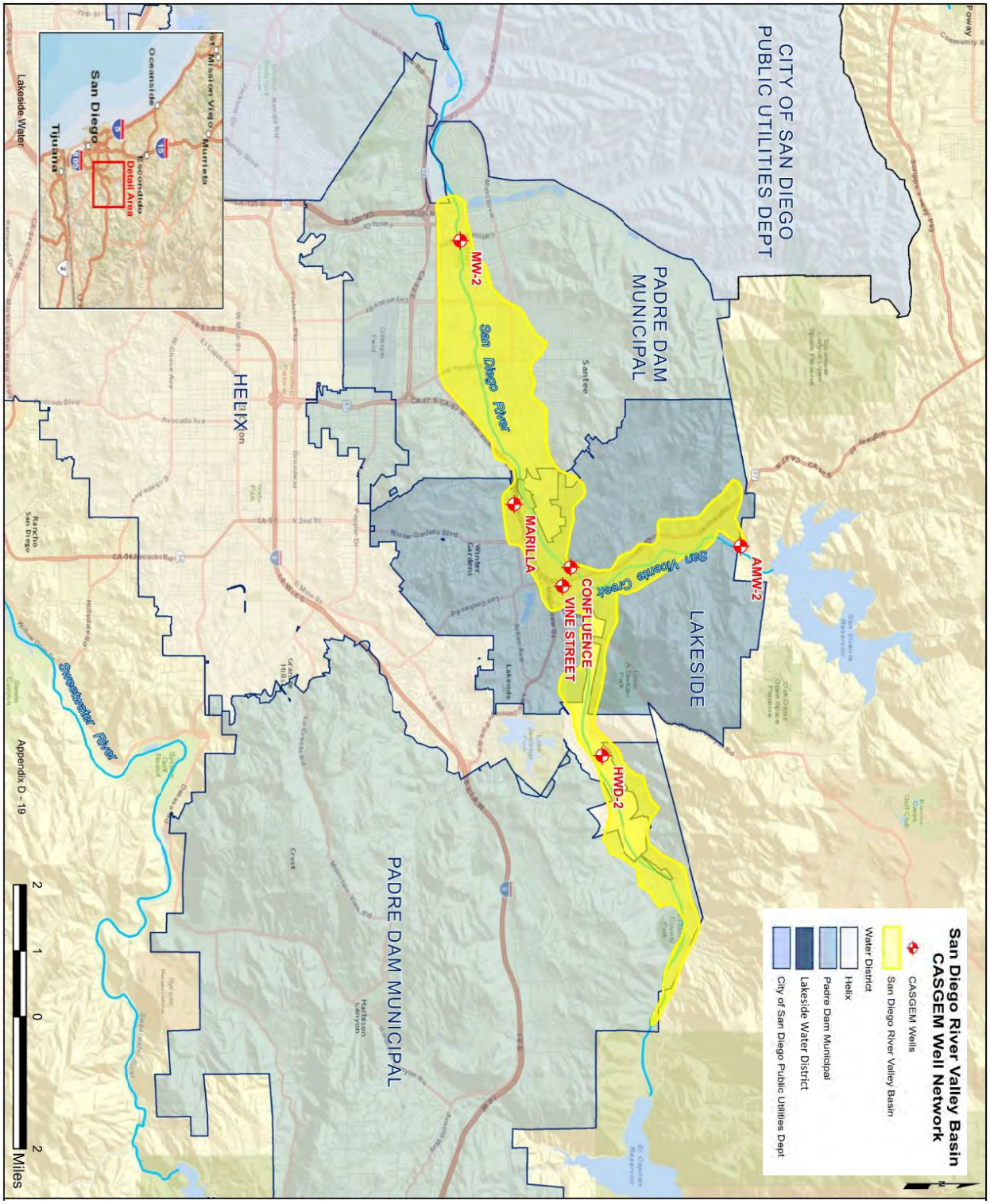

Figure 2.6 San Diego River Valley Basin CASGEM Well Network

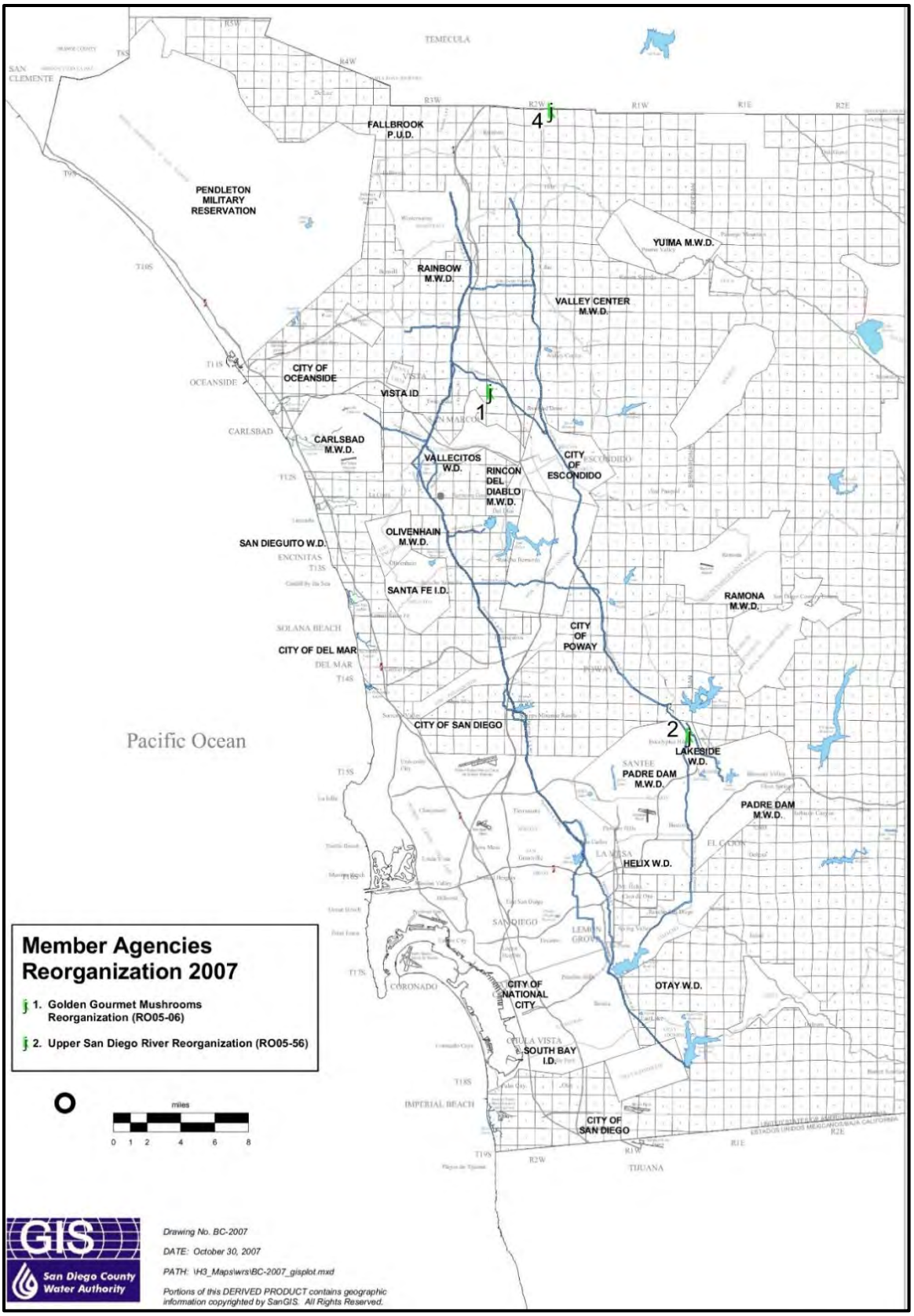

Figure 2.7 San Diego County Water Authority Member Agencies (October 30, 2007)

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Section 3: Water Sources and Supplies

Supplies consist of groundwater produced from the Santee-El Monte Basin and imported water from CWA.

3.1. INTRODUCTION

This Section describes the current and projected water resources available to the District over a 25-year period (from 2030 through 2050). This Section also provides some background information on the overall water supplies available to the region. The District's water supplies consist of groundwater produced from the Santee-El Monte Basin and imported water from the San Diego County Water Authority (CWA). The District purchased approximately 91% of its water supply from CWA in 2025, which buys approximately 57% from the Metropolitan Water District of Southern California (MWD). MWD imports water through the Colorado River Aqueduct (CRA) and facilities of the State Water Project (SWP). CWA imports 91 percent of the water used by county residents; the remaining 9 percent is from local sources, such as water recycling, groundwater, local runoff, and a desalinization plant. CWA also has transfer agreements with Imperial Valley Famers (IID transfer) 19% of water imported and the Quantification Settlement Agreement (QSA) transfer agreement for relining the All-American and Coachella Canals which is 15% of water imported. Critical issues in water resources planning, such as the County's rapidly growing population, limited storage capacity, water transmission facilities, uncertainties over water imported from northern California, and the loss of water imported from the Colorado River, are requiring CWA to develop long-range plans for meeting future water demands called the Supply Diversification Plan.

The District produced approximately 9% of its water supply from local wells in 2025, pulling water from the Santee-El Monte Basin (Basin). The Vine Street well field has three wells, but only two are active, with a dual media package treatment plant for iron and manganese. The Riverview well field has four wells with an aeration treatment plant to remove MTBE, a gasoline additive, which was made inactive as of 2007.

3.2. IMPORTED WATER SOURCES

The District currently imports treated potable water through the CWA 12" metered connection with Helix Water District's 54" line at Channel Road through an 11.7 mgd or 13,106 AFY maximum connection. The Helix Water District treats raw water, stored at Lake Jennings, at its Levy WTP, which is located just to the east of the District's boundary. The District also has two emergency connections to Padre Dam's wholesale system. They are located on Woodside Avenue, one 6" and one 10". There is also one 6" emergency connection with Helix Water District on Melrose Street.

In order to provide Southern California with imported water, MWD utilizes two separate aqueduct systems (one for each source of supply) to obtain its supplies. These two aqueduct systems convey water from each source into two separate reservoirs whereupon MWD pumps the water to one of its five treatment facilities. These aqueduct systems are known as CRA) and the California Aqueduct, also known as the State Water Project (SWP).

3.2.1. Colorado River Water Supply History

The Colorado River begins as far north as Wyoming, with multiple tributaries from seven States feeding the Colorado River's branch system. The watershed of the Colorado River encompasses 246,000 square miles, which is the seventh largest in North America. Most of the river's water source is produced during winter seasons, with snow above 5,000 feet and rainfall at lower elevations in the Rocky, Uinta, and Wind River Mountains. The snowmelt and rainfall occurring in and nearby these mountains are the primary origination or source point of the Colorado River's water.

Prior to the construction of major dams and canals, the Colorado River dumped about 16.3 million acre-feet (MAF), or 5.3 trillion gallons, of water into the Gulf of California on an annual basis. The river is also historically known to be very volatile, with summer flows, known for their flood potential, far surpassing winter flows by margins of over 50 to 1. Historically, this volatility was the cause of flooding concerns for the areas lying within the floodplain of the river.

Figure 3.1 Parker Dam at Colorado River

Figure 3.2 Colorado River Basin and Diversion Structure

3.2.2. Early Canal Systems

As mentioned in **Section 2**, the Colorado River was tapped as a source of supply in the early 1900s. The early canals were built mostly by and for private land owners in the Palo Verde Valley and the Imperial Valley, mainly for agricultural purposes. This included the Alamo Canal (also known as the Imperial Canal), which was the earliest major canal built from the Colorado River. Built in 1900-1901, the Alamo Canal connected the Colorado River to the head of the Alamo River, and supplied water to the Imperial Valley area just south of the Palo Verde Valley. In response to silt deposits that restricted flow capacity of the Alamo Canal, modifications were made to the Canal in 1904 to increase flow capacity.

Flooding of the Colorado River in the succeeding years occurred, and the improperly constructed improvements led to the river's flows being diverted into the Canal, which then flowed into the Salton Sink and created the Salton Sea. The flooding was corrected and the Alamo Canal was modified in 1907 to prevent future incidents. Within a few years, the Imperial Valley farmers formed the Imperial Irrigation District to assume responsibility and control of the Alamo Canal, and plans for its replacement were soon underway.

3.2.3. Colorado River Water Rights

"Law of the River" (Water Rights)

The right to water from the Colorado River is governed by numerous compacts, state and federal laws, court decisions and decrees, contracts, and regulatory guidelines collectively known as the "Law of the River." These documents apportion the water and regulate the use and management of the Colorado River among the seven basin states and Mexico. A summary of the court decisions is as follows:

Colorado River Compact (1922):
An interstate agreement giving each basin perpetual rights to annual apportionments of 7.5 million acre-feet (MAF) of Colorado River water to the States of Arizona, California, and Nevada.

Boulder-Canyon Project Act (1928)
Further defined the lower basin's 7.5 MAF apportionment split, with an annual allocation of 2.8 MAF to Arizona, 4.4 MAF to California, and 0.3 MAF to Nevada.

CA Seven Party Agreement (1931)
Prioritized California water rights of 4.4 MAF, with agricultural entities using 3.85 MAF of that total. The remaining priorities are defined for years in which the Secretary declares that excess waters are available.

Arizona v. California (1964 & 1979)
The 1964 decision defined Arizona's rights to the Colorado River and paved the way for the Central Arizona Project. The 1979 decision addressed Present Perfected Rights (PPRs) previously mentioned in past agreements. These rights are entitlements essentially established under state law, and have priority over later contract entitlements.

CO River Basin Project Act (1968)
Authorized projects in both the upper and lower basins, including the Central Arizona Project (CAP) in 1968. The act made the priority of the CAP water supply subordinate to California's apportionment in times of shortage.

Quantification Settlement Agreement (2003)
The Quantification Settlement Agreement (QSA) settles disputes among the United States, the State of California, Imperial Irrigation District (IID), MWD, Coachella Valley Water District, and the San Diego County Water Authority (CWA). The agreements resolve, for a period of 35 to 75 years, issues regarding the reasonable and beneficial use of Colorado River water; the ability to conserve, transfer and acquire conserved Colorado River water; the quantification of Priorities 3 and 6 (*CA Seven Party Agreement*) within California for the use of Colorado River water; and the obligation to implement and fund related environmental impact mitigation.

In short, the "Law of the River" and the more recent QSA provide the methods and the means to allow water rights holders to interact with one another and to elevate their water use to efficient 21st Century standards.

3.2.4. MWD'S Colorado River Rights

Water supply from the CRA continues to be a critical issue for Southern California as MWD competes with several agricultural water agencies in California for unused water rights to the Colorado River. Although California's allocation has been established at 4.4 MAF annually, MWD's allotment stands at 550,000 AFY with additional amounts increasing MWD's allotment to 842,000 AFY if there is any unused water from the agricultural agencies.

MWD recognizes that competition from other states and other agencies within California has decreased the CRA's supply reliability. In 2003, the Quantification Settlement Agreement (QSA) facilitated the transfer of water from agricultural agencies to urban uses. This historic agreement provides California the means to implement transfers and supply programs, which will allow California to live within the State's 4.4 MAF basic annual apportionment of Colorado River water.

Section 7.5 provides further details regarding the Colorado Rivers reliability

since 2020, including recent water levels in Lakes Mead and Powell.

3.2.5. BAY-DELTA

The District has access to imported water from the Sacramento-San Joaquin River Delta in Northern California through CWA. The Bay Delta water system provides Southern California agencies with over 1 million acre-feet (MAF) of water annually.

Figure 3.3 Bay Delta

The Delta is often considered the nexus of California's statewide water system. Approximately half the total river flow in the State passes through this region, from which water is exported to the San Joaquin Valley, Southern California, and portions of the Bay Area to supply 1,130,000 acres of farmland and 23 million people in central and Southern California. The Delta provides an estimated 7 million acre-feet (MAF) of water per year, of which approximately 100,000 AF is exported to the San Francisco Bay Area, 1.7 MAF is used locally, and more than 5 MAF is exported to the San Joaquin Valley, coastal Central and Southern California via the State Water Project.

3.2.6. Bay Delta Conveyance Project

The Delta Conveyance Project is a modernization effort proposed by the State of California Department of Water Resources (DWR) to change how water is moved through the Sacramento–San Joaquin Delta for the State Water Project (SWP). The Delta Conveyance Project centers around constructing a new, single-tunnel conveyance facility that would divert a portion of Sacramento River flows through new intakes in the North Delta and deliver that water to the existing SWP pumping facilities in the South Delta. The goal is not to increase water exports, but to improve the system's ability to capture water during periods of high availability and maintain water reliability during future droughts.

The Delta Conveyance Project is currently in the final stages of regulatory review and permitting, following the DWR's approval of the project and certification of the Final Environmental Impact Report (EIR) in late 2023. During 2024–2025, DWR secured several major environmental permits, including the California Endangered Species Act Incidental Take Permit, and advanced federal permitting through the U.S. Army Corps of Engineers and NOAA Fisheries. The project continues to move forward but has

not received final approval to begin construction.

3.2.7. State Water Project (Aqueduct)

The California State Water Project is a water storage and delivery system of reservoirs, aqueducts, power and pumping plants. Its main purpose is to store water and distribute it to twenty-nine (29) urban and agricultural water suppliers in Northern California, San Francisco Bay Area, San Joaquin Valley, Central Coast, and Southern California. Of the contracted water supply, seventy percent (70%) is delivered to urban users and thirty percent (30%) is delivered to agricultural users.

The State Water Project or "SWP" is a result of decades of planning and construction dating back to the 1940s.

In 1947, the California State Legislature funded a water resources investigation that led to the development of the SWP. This investigation resulted in the publication of the California Water Plan. The California Water Plan presented preliminary plans to meet the State's ultimate water needs, including those facility works required for transferring surplus water from Northern California to Southern California. Financing for the construction of SWP facilities was authorized in 1959, when the State Legislature enacted the California Water Resources Development Act (known as the Burns-Porter Act). The Burns-Porter Act, formally known as the California Water Resources Development Bond Act, was placed on the November 1960 ballot and approved by voters. Also known as Proposition One, the initial water projects included Oroville Dam and Lake Oroville, B.F. Sisk Dam (also known as San Luis Dam), San Luis Reservoir, South Bay Aqueduct, North Bay Aqueduct, and the California Aqueduct. Construction on the Oroville site began before the passage of the Burns-Porter Act. A $25 million emergency appropriation was passed in 1957 after a record late 1955 to early 1956 flood, which devastated Northern and Central California. Statewide, 64 deaths were recorded due to the flooding, mostly in Sutter County and Yuba City, and more than $200 million of property damage.

The State Water Project or "SWP" is a result of decades of planning and construction dating back to the 1940s.

Figure 3.4 Sacramento-San Joaquin Bay Delta

Figure 3.5 Aqueduct Systems in California

Figure 3.6 State Water Project

The first SWP water deliveries were made in 1962, two years after construction began The State of California Department of Water Resources (DWR) and MWD signed the first water supply contract in 1960. Today twenty-nine (29) agencies have long-term water supply contracts with DWR. The service areas of those long-term water supply contractors vary widely in size, location, climate, and population. The contractors' uses for SWP water also differ. In the San Joaquin Valley, SWP water is used primarily for agriculture. In Southern California, SWP water is used primarily for urban and industrial needs.

Today 29 agencies have long-term water supply contracts with DWR

Today, the SWP includes thirty-four (34) storage facilities, reservoirs, and lakes; twenty (20) pumping plants; four (4) pumping-generating plants; five (5) hydroelectric power plants; and approximately 701 miles of open canals and pipelines. The SWP is owned and managed by DWR.

3.3. IMPORTED WATER PURCHASES

Table 3.1 presents the District's recent imported water purchases from CWA for years 2021 to 2025 and compares them to years 2015 to 2020.

Table 3.1 Imported Water Supply

Year	Purchases (AF)
2021	3,221
2022	3,174
2023	3,024
2024	3,164
2025	3,180
Average:	**3,153**
2015 – 2020 Avg. (2020 UWMP)	**2,698**

3.4. GROUNDWATER SOURCES

The District averages 16% of its water supply from local wells and proactively meets all groundwater management standards. There is currently not a groundwater management plan and the basin is not adjudicated. The District is one of four agencies that have formed a voluntary cooperative groundwater monitoring association that complies with the Department of Water Resources "California Statewide Groundwater Elevation Monitoring" (CASGEM) program for the San Diego River Valley basin. The CASGEM voluntary program has been established in accordance with California State Senate Bill x7-6 that amended the State Water Code and mandates a statewide groundwater elevation monitoring program to track seasonal and long-term trends in groundwater elevation in California's groundwater basins. The intent of the CASGEM program is to establish a permanent, locally-managed program of regular and systematic monitoring in all of California's groundwater basins. The goal is to determine that the basins are sustainably managed and operated. The CASGEM report is in **Appendix J.**

The District's well field on Vine Street has three wells with a package dual media treatment plant for iron and manganese that produced 593 acft in fiscal year 2020. The Riverview well field was made inactive in 2007 and is off of Highway 67 between Wintergardens Blvd. and Riverford Ave. It has four wells with an aeration treatment plant to remove MTBE, a gasoline additive. This well field's production was considerably lower when compared to the other well field and also contains high levels of total dissolved solids and nitrates. Table 4-1 quantifies the historical amount of local groundwater pumped by the District. The District has estimated pumping 900 acre feet per year in the future.

3.4.1. Santee-El Monte Aquifer

The primary aquifer within the District's service area is the Santee-El Monte aquifer. This aquifer is comprised of loose alluvial sediments that extend along the San Diego River and major tributaries. The Santee-El Monte Alluvial Aquifer provides significant groundwater storage capacity, and has excellent recharge characteristics which has not been identified as over drafted nor projected to become over drafted. Well

yields within the Santee-El Monte Alluvial Aquifer are good (typically on the order of hundreds of gallons per minute). The Santee-El Monte alluvial groundwater aquifer covers an area of approximately 4,600 acres. The aquifer stretches approximately 11 miles along the San Diego River from the eastern portion of the community of Lakeside to the western portions of the City of Santee.

The Santee-El Monte Basin consists of three distinct sub basins. The Santee Sub basin comprises the western half of the basin, and extends along the broad San Diego River flood plain downstream from the intersection of San Vicente Creek and the San Diego River. The Moreno Valley sub basin extends downstream from San Vicente Reservoir to the San Diego River. The El Monte Sub basin comprises the eastern portion of the Santee-El Monte Basin. The El Monte Sub basin is situated in the relatively narrow river valley along the San Diego River upstream from the river's confluence with San Vicente Creek.

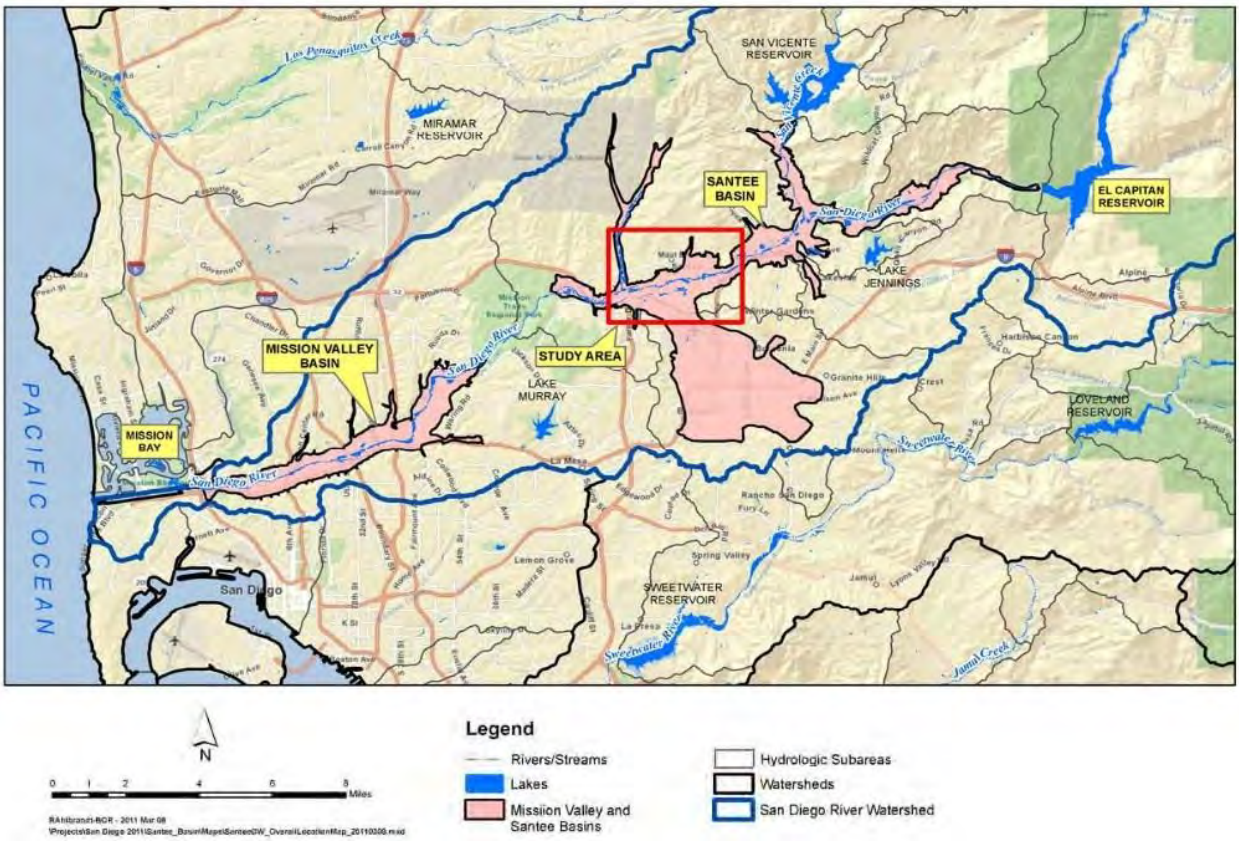

Figure 3.7 Santee-El Monte Basin (Santee Basin Aquifer Recharge Study, 2011)

3.4.2. Hydrogeology and Water Use

Table 3.2 summarizes hydro geologic parameters for the three sub basins that comprise the Santee-El Monte Alluvial Aquifer. As shown in the table, hydro

geologic conditions vary widely within the three sub basins. In general, however, groundwater storage coefficients, hydraulic conductivities, and well yields are higher in the upstream reaches of the basin.

Past studies have reported a wide range of estimates for the groundwater storage capacity of the overall basin. (These estimates range from approximately 50,000 acre-feet (AF) to 100,000 AF.) The best available information, however, indicates that overall combined storage in the three sub basins of the Santee-El Monte Alluvial Aquifer is on the order of 70,000 AF. Hydraulic conductivity values in the sub basins (as reported in past studies) range from approximately 25 feet per day to 125 feet per day.

Streamflow infiltration comprises the dominant source of recharge within the Santee-El Monte Basin. Much of this streamflow infiltration recharge is believed to occur in the El Monte Subbasin. Because of limited groundwater pumping within the Moreno and Santee Subbasins, these subbasins typically remain filled or nearly filled with groundwater. Thus, while the potential for significant streamflow infiltration exists within the Moreno and Santee Subbasins, streamflow infiltration is typically limited by a lack of available groundwater basin capacity.

Infiltration from agricultural and urban surface runoff also is a key component of groundwater recharge within the overall Santee-El Monte Alluvial Aquifer. Infiltrating applied waters, infiltrating precipitation, septic tank discharges, and subsurface inflow also contribute to groundwater recharge within the Santee-El Monte Alluvial Aquifer.

The Clean Water Program for Greater San Diego (1990) and NBS/Lowry (1995) conducted detailed well surveys of the Santee-El Monte Basin. These surveys show that groundwater use within the Santee Subbasin has decreased substantially within the past several decades (probably due to water quality limitations). While more than 20 historic wells existed within the Santee Subbasin, only a few wells remain active. Current groundwater use within the Santee Subbasin is on the order of several hundred acre-feet per year. The surveys report that many wells (over 20) are still active within the Moreno subbasin. Total existing groundwater use within the Moreno subbasin was estimated to be on the order of approximately 200 AFY.

A significant majority of the overall groundwater use within the Santee-El Monte Basin, however, occurs within the El Monte Subbasin. A total of more than 50 active irrigation and domestic wells exist within this basin. Total pumping within the El

Monte Basin is estimated at approximately 4,000 AFY (NBS/Lowry, 1995). Groundwater users include private landowners and public entities. The District develops approximately 1,000 AFY of supply from the basin (Welch & CWA, 1997).

3.4.3. Basin Water Balance

Streamflow infiltration represents a key source of recharge to the Santee-El Monte Alluvial Aquifer. Infiltrating storm and urban runoff, percolating precipitation, percolating applied waters, septic tank discharges, and groundwater inflow from adjoining aquifers provide additional recharge to the aquifer. Once recharged to the basin, groundwater may exit the basin through groundwater pumping, withdrawal by phreatophytes (deep-rooted vegetation), surfacing groundwater, and subsurface outflow.

The quantity of basin recharge and discharge varies with hydrologic conditions, changes in land use, and changes in local water use. While depths to groundwater fluctuate in response to these factors, over a long period of time, overall basin and recharge and discharge are balanced. The recharge and discharge terms of this balance offer insight to appropriate strategies for developing additional water supply within the basin. Overall water balance estimates for the Santee-El Monte Basin have been presented in several previous studies, including DMJM and Lowry & Associates (1978), USGS (1985), NBS/Lowry (1994) and Bundy/Huntley/SDSU (2001). Differences exist between the studies in the manner in which individual recharge/discharge terms are defined and estimated. Even taking these differences into account, however, water balances presented in previous studies demonstrate that excess recharge capacity exists within the Santee-El Monte basin. (That is to say, increased pumping within the basin results in increased streamflow infiltration.)

Using information from these past studies to develop a water balance concluded that current long-term streamflow infiltration totals within the Santee-El Monte Basin are limited by the fact that the basins are typically too “full” to accept infiltrating streamflows. As a result, streamflow that would normally infiltrate into the basin flows out to the ocean.

3.4.4. Demonstration of Consistency with Delta Plan

The District, the San Diego County Water Authority (CWA), and Metropolitan Water District of Southern California (MWD) are all acting to reduce dependence on the Sacramento-San Joaquin Delta. In addition to the various demand management measures discussed in Chapter 9 of this UWMP, Helix Water District is pursuing an advanced water purification program in a joint effort with Padre Dam Municipal Water District, the City of El Cajon, and the County of San Diego in order to develop a program

that will yield a drought-proof local supply of potable water. This program is described in detail in Chapter 6 of this UWMP. As noted in Chapter 6, the District projects that as much as 28.6 percent of its future supplies will be from new, locally sustainable sources that would significantly reduce the District's reliance on the Delta. Additional information is available at Appendix J of CWA's 2020 UWMP, and Appendix 11 of MWD's 2020 UWMP to address this requirement.

3.4.5. Development of Desalinated Water

The District's wholesale water supplier, CWA, has developed a desalinated water supply. It is expected to provide 8% of the region's supply by the year 2020. Additional detail may be found in CWA's 2020 UWMP. The District does not have a desalination opportunity.

3.4.6. Energy Intensity

Beginning in its 2020 UWMP update, the District is required to report information that could be used to quantify or calculate the energy intensity of its water services. The information is limited to that which is readily reportable or obtainable by the District. Based on available data from power bills (individual service meters at the District's facilities), the District is able to report energy consumption. Per DWR's reporting table, 1,520,791 kwh and 3472 AF, the District's energy intensity for its water management process is approximately 438 kilowatt hour per AF.

Table 3.2 Summary of Hydro geologic Characteristics Santee-El Monte Alluvial Aquifer

Parameter	Santee Subbasin	Moreno Subbasin	El Monte Subbasin
Principal Surface Watercourse	San Diego River	San Vicente Creek	San Diego River
Location	Santee	Moreno Valley	Lakeside
Basin Length [1]	6 miles	2 miles	5 miles
Average Basin Width [1]	4,500 feet	2,000 feet	2,500 feet
Basin Elevation [1]	300 - 400 feet MSL[2]	400-500 ft MSL[2]	400 - 800 ft MSL[2]
Primary Aquifer Type [3]	Unconfined alluvium	Unconfined alluvium	Unconfined alluvium
Aquifer Composition [3]	Medium to coarse grained sand, and gravel	Medium to coarse grained sand and gravel	Medium to coarse grained sand and gravel
TDS [4]	800-2500 mg/L	500 - 800 mg/L	300 - 800 mg/L
Hydraulic Conductivity [4,]	25 - 100 ft/day 50 ft/day average	25-125 ft/day 75 ft/day average	50-125 ft/day 100 ft/day average
Specific Yield [4]	5 percent-20 percent range 13 percent average	5 percent-22 percent range 13 percent average	10 percent-22 percent range 15 percent average
Average Basin Hydraulic Gradient [1]	0.003 ft/ft	0.009 ft/ft	0.015 ft/ft
Estimated Basin Storage [4]	30,000-50,000 AF	5,000-8,000 AF	20,000-30,000 AF
Aquifer Thickness [4]	200 feet maximum 100 feet average	150 feet maximum 100 feet average	200 feet maximum 100 feet average
Current Estimated Pumping [4]	400 AFY [5]	200 AFY [5]	4,000 AFY [5]
Approximate Well Pumping Capacity[4,6]	200 - 1000 gpm	200 - 1000 gpm	800 - 1600 gpm
Areas of Greatest Surface Infiltration [4]	Along the San Diego river channel	Upper reaches of basin; along San Vicente Creek channel	Along San Diego River channel

1 Measured or estimated from USGS topographic maps for the El Cajon, San Vicente, and Alpine quads.
2 Elevations listed in feet above mean sea level (MSL).
3 From USGS (1985) and NBS/Lowry (1995).
4 Estimate based on information presented in State of California Department of Water Resources (1984), USGS (1985), CWA (1987), Luke-Dudek (1987), Clean Water Program for Greater San Diego (1990), NBS/Lowry (1995), and Welch & CWA (1997). In general, storage coefficients and hydraulic conductivity are higher in the upstream (El Monte and San Vicente) subbasins. Highest well yields occur in the El Monte Subbasin.
5 Estimate based on well surveys conducted by Clean Water Program for Greater San Diego (1990) and NBS/Lowry (1995).
6 Based on large-diameter irrigation wells. Maximum pumping rates from small diameter private domestic wells within the subbasins may be on the order of 100 (gallons per minute) gpm or less. (See NBS/Lowry (1995).

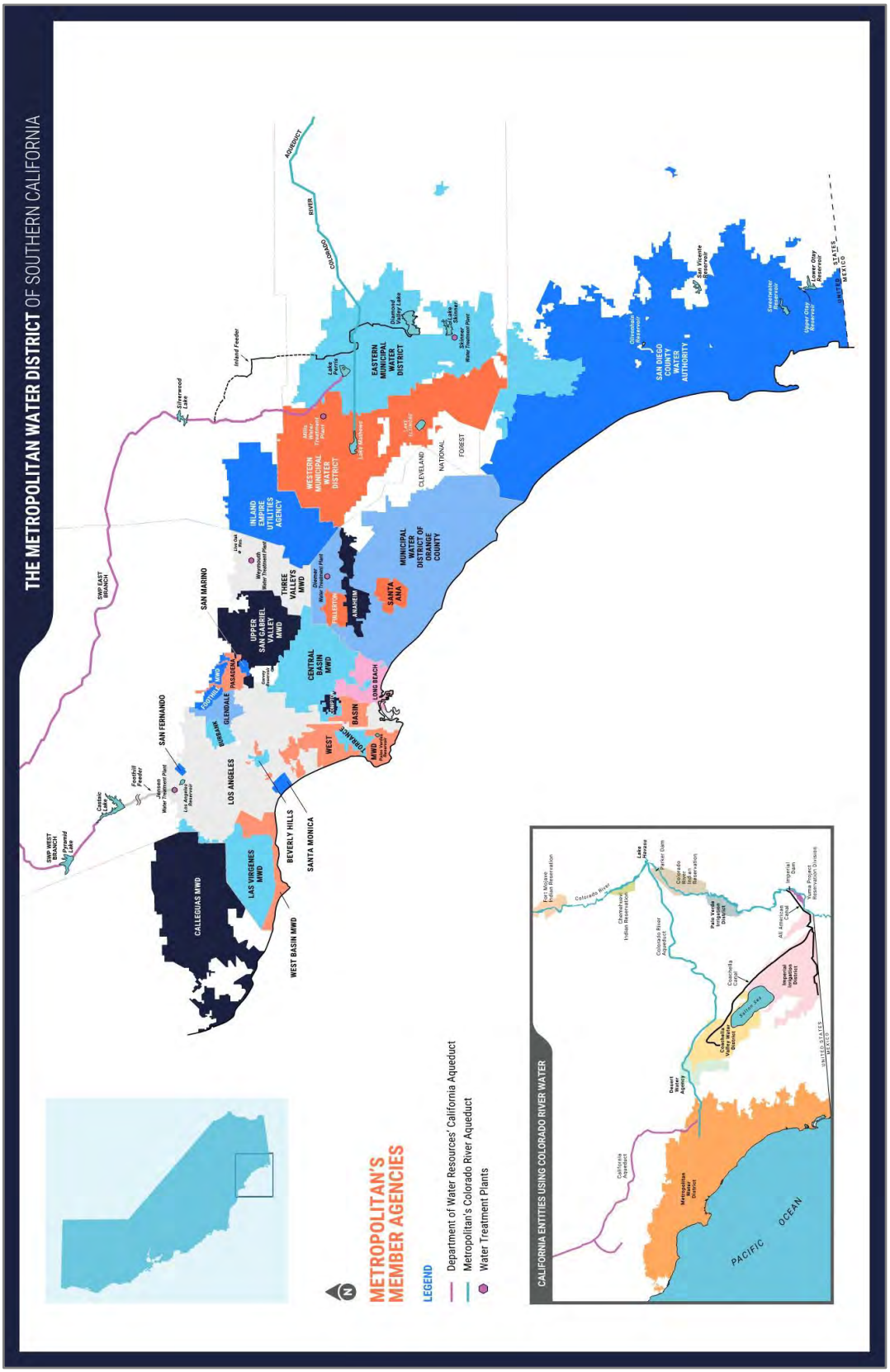

Figure 3.8 MWD Service Area Map

3.5. GROUNDWATER PRODUCTION

All wells within the District's service area are equipped with a flowmeter to measure water production. Water production is recorded monthly by District staff and reported annually to DWR. Over the past five years of operation, groundwater extraction has averaged 303 AFY. **Table 3.2** displays the District's groundwater supplies for years 2021 to 2025.

Table 3.3 Overall Groundwater Production

Year	Production (AF)
2021	404
2022	309
2023	256
2024	187
2025	358
Average:	**303**
2015 – 2020 Avg. (2020 UWMP)	**760**

As can be seen from the amounts shown above, overall water production has not changed from 2021 to 2025, although greatly decreased from the average produced from 2015 to 2020. This is most likely a result of the Riverview well field being inactive.

3.5.1. Groundwater Production Capacity

The District well field on Vine Street has three wells, with one offline, with a package dual media treatment plant for iron and manganese. The Riverview well field was made inactive in 2007 and is off of Highway 67 between Wintergardens Blvd. and Riverford Ave. It has four wells with an aeration treatment plant to remove MTBE, a gasoline additive. This well field's production was considerably lower when compared to the other well field and also contains high levels of total dissolved solids and nitrates. **Table 3.3** quantifies the historical amount of local groundwater pumped by The District.

3.6. PROJECTED WATER SUPPLIES

Based on MWD's supply projections that it will be able to meet full service demands under all three hydrologic scenarios, CWA, the District's wholesale supplier, concludes that it would also be able to meet the demands of its retail agencies under these conditions.

CWC section 10631(k) requires the wholesale agency to provide information to the urban retail water supplier for inclusion in its UWMP which identifies and quantifies the existing and planned sources of water available from the wholesale agency. **Table 3.3** indicates the wholesaler's water availability projections by source for the next 25 years as provided to District by CWA.

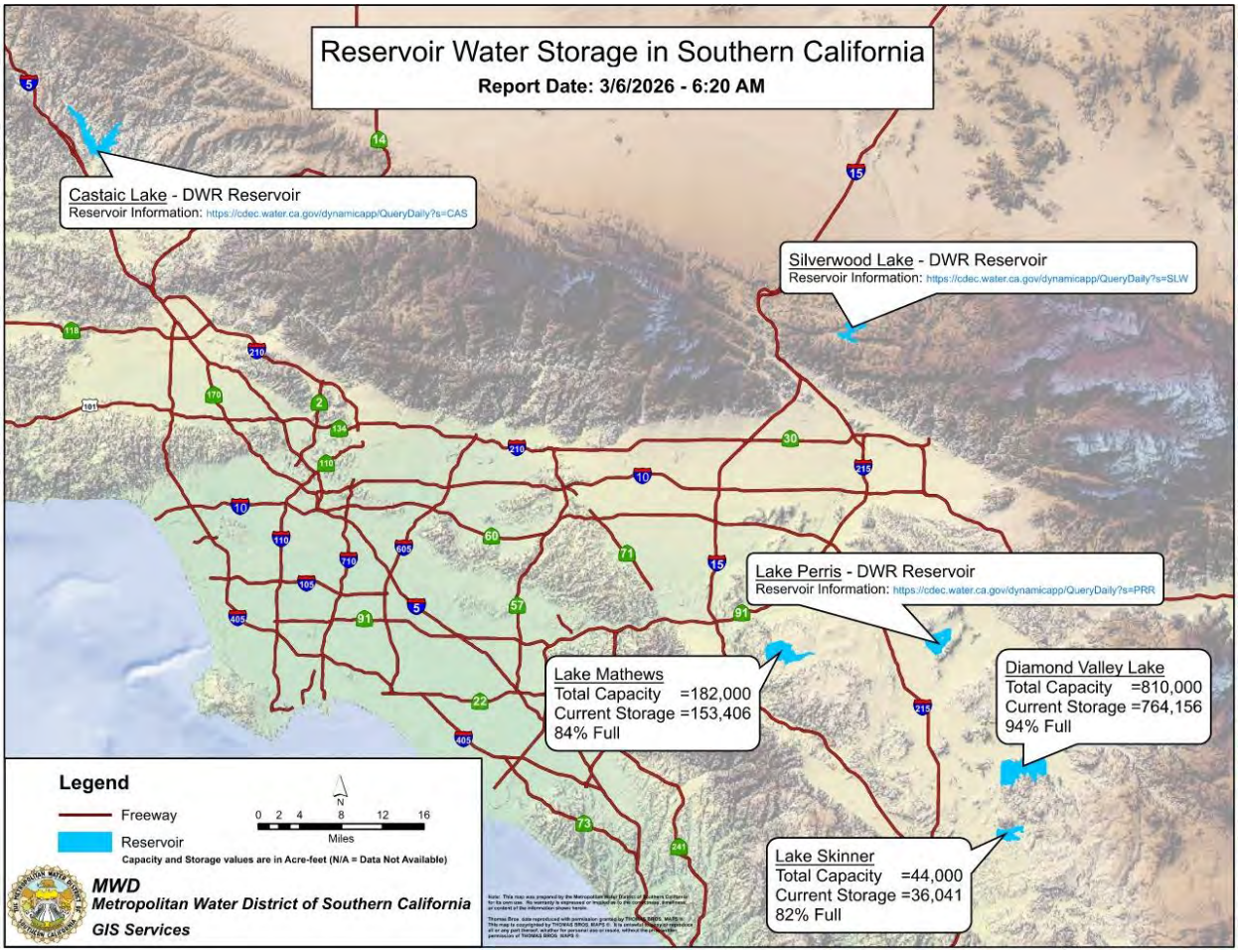

Figure 3.9 MWD Reservoir Levels (March 2026)

In addition to imported water supply availability, **Table 3.3** also shows the amount of groundwater supply available to the District over the next 25 years. In the past, various problems with the District's wells have hindered the amount that is able to be pumped. This is a contributing factor to District's intention to embark on a well rehabilitation and development plan to increase reliance on local supplies over imported sources.

3.7. RELIABILITY OF SUPPLIES

The reliability of water supplies with regard to regular threats to reliability, including droughts and competition for supplies, is discussed in detail in **Section 7**. The reliability of supplies with regard to irregular threats to reliability, including catastrophic events or emergencies (earthquake/power outage) is discussed in **Section 8**.

4

Section 4: Recycled Water Opportunities

Recycled water use has increased overall water supply reliability for CWA.

4.1. OVERVIEW

Recycled water is defined as domestic wastewater purified through primary, secondary and tertiary treatment. The Southern California region, from Ventura County to San Diego County, discharges over 1 billion gallons of treated wastewater to the ocean each day. Since recycled water is acceptable for a variety of non-potable water purposes such as irrigation, groundwater recharge, and commercial/industrial processes, it is considered a reliable and drought-proof water source and could greatly reduce the region's reliance on imported water. As technological improvements continue to reduce treatment costs, and as public perception and acceptance continue to improve, more reuse opportunities should develop, which will increase demands for recycled water. Recycled water is a critical part of the California water picture because of the area's high likelihood of drought. As part of its overall water resources planning, the District continues to investigate the feasibility and cost-effectiveness of using recycled water.

Cost-effective opportunities for using recycled water are limited due to the lack of large users or large irrigated areas within the District's service area, especially when considering the large costs for developing and operating treatment facilities and distribution system. In addition, there is presently a possible source from Padre Dam Municipal Water District (Padre Dam), but

no infrastructure is available within the District's service area. This potential use of recycled water is continually assessed by the District.

This Section describes the existing and future recycled water opportunities available to the District. The section also includes estimates of potential recycled water supply and recycled water demand from 2030 through 2050 in five-year increments.

4.2. WASTEWATER COLLECTION SYSTEM

Wastewater collection, treatment and disposal or reclamation services within the District's boundaries are performed by separate and unrelated agencies. Most of which is the San Diego County Sanitation District (**Figure 4.2**), with a small portion being served by the Padre Dam Municipal Water District (Padre Dam), and the remaining customers on septic. Municipal wastewater is generated in the District's service area from a combination of residential, commercial, and industrial sources. Although the water and sewer service areas are slightly different, the quantities of wastewater generated are generally proportional to the population and the water used within the service area. It is estimated that customers within the District's service area generate wastewater based on 80 percent of potable water demand, although that is not a strict figure.

4.2.1. Wastewater Treatment

For over 50 years Padre Dam has utilized the Ray Stoyer Water Recycling Facility to treat wastewater to tertiary recycled water standards. In its 2020 UWMP, Padre Dam reported 1,856 AF of treated wastewater in 2020 at this facility. However, the Ray Stoyer Water Recycling Facility was decommissioned on April 8, 2026, and will be replaced with the East County Advanced Water Purification Program (East County AWP). East County AWP is a collaborative effort with Padre Dam, county of San Diego, City of El Cajon and Helix Water District to purify East San Diego County's recycled water to produce up to 30% of East San Diego County's drinking water supply. East County AWP includes construction of a new water recycling facility to recycle wastewater from the cities of Santee and El Cajon and the communities of Lakeside, Winter Gardens and Alpine (**Figure 4.3**).

Figure 4.1 Installation of Large-Diameter Pipe for New Chet Harritt Pump Station

At the newly constructed East County Advanced Water Purification Facility, the recycled water produced will go through a

four-step advanced treatment process:

1. Membrane Filtration
2. Reverse Osmosis
3. Ultra Violet/Advanced Oxidation
4. Free Chlorine Disinfection

The purified water will be transferred through a 10-mile pipeline to Lake Jennings. There the purified water will be added to the lake with water from the Colorado River and Lake Cuyamaca. According to regulations, the water must be stored in a lake or aquifer before it is distributed to customers. Helix Water District treats the water in Lake Jennings at the district's R.M. Levy Water Treatment Plant. It's then distributed to homes and businesses in the cities of La Mesa, Lemon Grove, and El Cajon, the Spring Valley community, and unincorporated areas of the county. The purified water from the East County AWP will provide up to 30% of Helix Water District's water supply.

4.3. RECYCLED WATER

Currently, no recycled water infrastructure exists within the District's service area. Further, the District does not use any recycled water produced by any other agencies. Thus, no wastewater is recycled within the District's service boundary, as **Table 4.1** indicates:

Table 4.1 Recycled Water Production and/or Use

Year	Recycled Water Produced or Used (AF)
2021	0
2022	0
2023	0
2024	0
2025	0

As projected in the District's 2020 UWMP, no recycled water was produced or used in the last five years.

4.3.1. Projected Recycled Water Use

As indicated in the previous section, the District neither produces itself nor uses recycled water produced by any other agencies within its service area, although the adjacent Padre Dam producers recycled water. Also, the District does not anticipate the production or use of recycled water for the foreseeable future, due to financial reasons. Recycled water infrastructure costs (pipelines and WWTP improvements) could be as high as $500 per AF of water (conservative ballpark estimate). The District would then have to sell the water at a price above that amount to make a return on its investment. Compared to the District's cost to produce and treat groundwater, it would simply be too costly to construct and maintain recycled water infrastructure. Thus, the District projects no recycled water

production and/or use for the current UWMP planning period (through 2050), as shown in **Table 4.2** below:

Table 4.2 Projected Recycled Water Production and/or Use

Year	Recycled Water Production/Use (AF)
2030	0
2035	0
2040	0
2045	0
2050	0

4.3.2. Planned Recycled Water Infrastructure

There are no planned recycled water improvements that are projected to be constructed within the District's service area within this UWMP planning period (2050). However, as the adjacent Padre Dam producers recycled water the district may further look into utilizing some of this within its service area in the future.

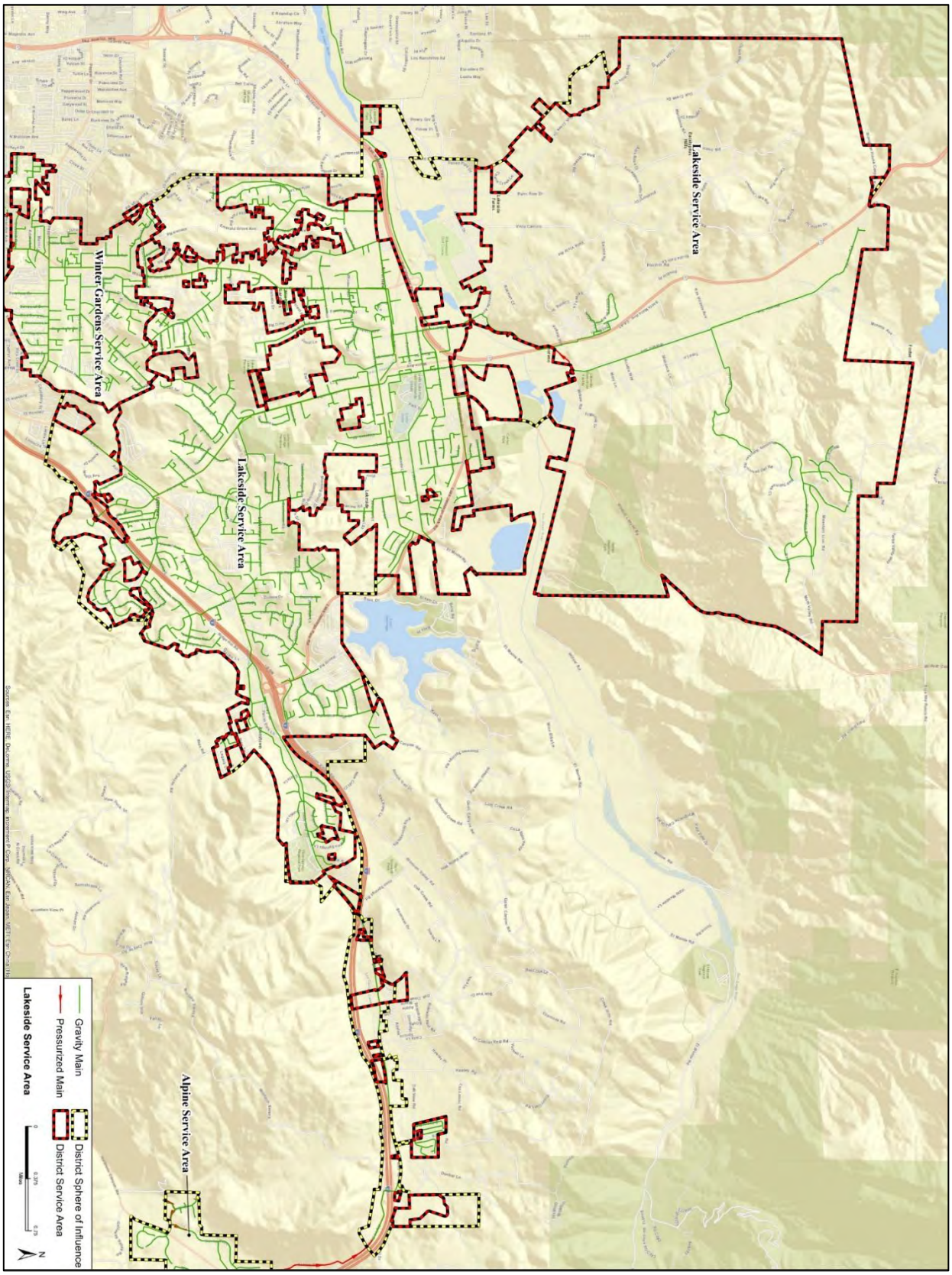

Figure 4.2 San Diego County Sanitation District – Lakeside Service Area Boundary

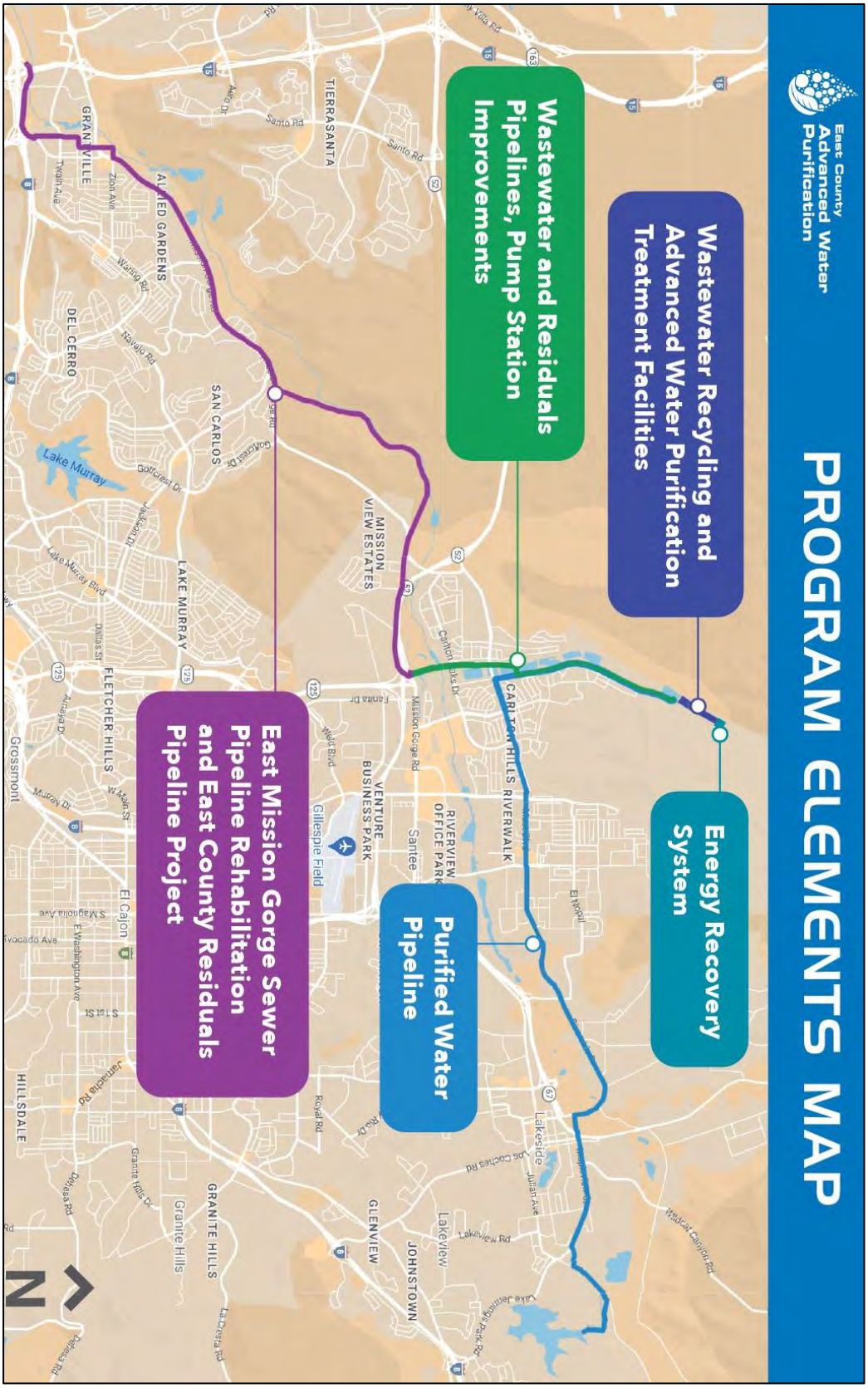

Figure 4.3 Wastewater Treatment and Water Recycling Facilities (CWA 2020 UWMP)

5

Section 5: Water Quality

Local groundwater from the District's wells is pumped and treated at the Vine Street Filtration Plant.

5.1. OVERVIEW

The quality of a natural body of water varies over time and location, and these variables must be recognized by water agencies. During periods of intense rainfall, contaminants can be washed into receiving waters, although dilution of existing contaminants may also occur. Conversely, during a drought, the concentration of existing contaminants may increase without additional incoming flows. These principles are true for both surface water and groundwater. As groundwater levels fluctuate, groundwater passes through different layers of rock and sediment and receives substances native to those strata. Likewise, groundwater wells that have not been utilized over periods of time can see water quality issues resulting from stagnant water. For these reasons, Lakeside Water District (District) monitors its wells for water quality as required by State and Federal regulations.

This Section provides a general description of the District's water sources, water quality monitoring and reporting, and water treatment. A discussion of potential water quality impacts on the reliability of supplies is also provided.

5.2. WATER QUALITY STANDARDS

5.2.1. Federal Regulations

In 1974, Congress passed the Safe Drinking Water Act (SDWA) in order to protect public health by regulating the nation's municipal drinking water supply. As part of the SDWA,

powers were given to the Environmental Protection Agency (EPA) to regulate drinking water. The 1996 amendment to the SDWA required monitoring of new types of contaminants. Since the 1996 amendment to the SDWA, the EPA has identified over 90 contaminants in its National Primary Drinking Water Regulations (NPDWR) or "primary standards"). The main categories that the EPA has identified include: biological microorganisms, disinfectants, disinfection byproducts, inorganic chemicals, organic chemicals, and radionuclides. As required by the SDWA, water agencies must provide annual Water Quality Reports to its customers.

As part of Federal EPA standards, water agencies are required to prepare annual water quality reports.

5.2.2. State Regulations

Water quality regulations have changed since the Safe Drinking Water Act in 1974. Several state, regional and county agencies have jurisdiction and responsibility for monitoring water quality. The actual regulations on water quality have also changed over the years. This is the result of the discovery of new contaminants, changing understanding of the health effects of previously known as well as new contaminants, development of new analytical technology, and the introduction of new treatment technology. All water purveyors are subject to drinking water standards set by the EPA and the State Water Resources Control Board (SWRCB). The California Department of Public Health (CDPH) previously oversaw the water quality of the State's drinking water program and the environmental lab accreditation program. As of July 2014, those programs were transferred to the SWRCB. Under the SWRCB, the Division of Drinking Water (DDW) regulates public drinking water systems, including setting the maximum contaminant levels (MCLs) and regulating the operation of water systems. In addition to the SWRCB, several regional and county agencies have jurisdiction and responsibility for monitoring water quality and contaminant sites.

In 2014, the State's drinking water program was transferred from the Health Department to the State Water Resources Control Board.

5.2.3. State Drinking Water Standards

The State of California has established two (2) main types of drinking water standards:

1. Maximum Contaminant Level (MCL)
2. Public Health Goal (PHG)

MCLs are the drinking water standards to be met by public water systems. The levels set by the State consider a contaminant's health risk, detectability, treatability, and costs of

treatment. MCLs are further broken down into two (2) types:

1. Primary MCL – Health Related
2. Secondary MCL – Taste & Odor

Secondary MCLs are not federally enforceable according to the most recent SDWA amendments. However, they are regulated by the State of California. DDW publishes a list of Secondary MCLs, which include Copper, Iron, and Zinc.

PHGs are established by the Office of Environmental Health Hazard Assessment (OEHHA). They are concentrations of drinking water contaminants that pose no significant health risk if consumed for a lifetime, provided risk levels are not exceeded. Public water systems sometimes use PHGs to provide information about drinking water contaminants in their annual water quality reports. PHGs are not regulatory standards. However, state law requires the SWRCB to set drinking water standards for chemical contaminants as close to the corresponding PHG as is economically and technologically feasible.

5.2.4. Hexavalent Chromium (Cr6)

As of the 2020 UWMP, California had previously established a maximum contaminant level (MCL) of 10 parts per billion (ppb) for hexavalent chromium (Cr6), which took effect on October 1, 2024. This concentration can be described as one drop in an Olympic-size swimming pool. Prior to this, Cr6 was regulated under California's total chromium MCL of 50-ppb. The Federal Standard is currently set at 100-ppb. The SWRCB is currently evaluating treatment technologies and cost estimates for Chromium-6 removal.

5.2.5. District Standards

Water quality is tested at the Lake Skinner Treatment Plant and Helix Water District's R.M. Levy Water Treatment Plant (Plant) **Figure 5.2**, where water is treated before it is supplied to the District. To ensure quality of its water, the District's wholesale suppliers conduct sampling and testing of water on a daily, weekly, and monthly basis at their respective Treatment Plants. Local groundwater from the District's wells is pumped and treated at the Vine Street Filtration Plant (**Figure 5.4)**. Results of the water quality testing are posted annually to the District's website. The District's water quality reports are archived at the following link:

lakesidewater.org/about-lakeside-water-district/newsletters/

The testing is conducted on several parameters, including organic & inorganic chemicals, bacteriological contaminants, pesticides & herbicides, and radiological contaminants. The District contracts with

certified laboratories to perform water quality testing. The District's Annual Water Quality Reports (also known as "Consumer Confidence Reports") are filed with DDW and released to customers. The annual reports identify regulated substances (Primary MCLs), secondary substances (Secondary MCLs), and unregulated substances (PHGs). The District identifies all detected substances in the annual reports. In addition, the District conducted a lead service line inventory in 2024 and the results are available on LWD's website.

Salinity levels often exceed secondary drinking water standards and pose a challenge for well operations.

According to the District's 2024 Annual Water Quality Report, the results for this type of testing indicate that lead and copper were not detected above the action level (AL).

5.3. QUALITY OF WATER SOURCES

The two main sources of the District's water supply are groundwater produced from the Santee-El Monte Basin (Basin) and imported water from the San Diego County Water Authority (CWA), which buys 57% from the Metropolitan Water District of Southern California (MWD). Since MWD draws the majority of its water from the CRA and the SWP, the quality of the District's imported water supply is closely related to the quality of these two sources.

5.3.1. Imported Water Quality

MWD is responsible for providing water of a high quality throughout its service area. The water delivered by MWD is tested both for currently regulated contaminants and for additional contaminants of concern. Over 300,000 water quality tests are conducted each year to regulate the safety of its water. MWD's supplies originate primarily from the CRA and from the SWP. The two sources, proportional to each year's availability of the source, is then treated and delivered throughout MWD's service area.

Figure 5.1 MWD's Robert A. Skinner Water Treatment Plant

MWD's primary sources face individual water quality issues of concern. The CRA water source contains a higher level of total dissolved solids (TDS) and a lower level of organic material. The SWP contains a lower TDS level while its level of organic materials is much higher, lending to the formation of disinfection byproducts. To remediate the CRA's high level of salinity and the SWP's

high level of organic materials, MWD has been blending CRA water with SWP supplies as well as implementing updated treatment processes to decrease the disinfection byproducts. In addition, MWD engages in efforts to protect its Colorado River supplies from threats of uranium, perchlorate, and chromium VI while also investigating the potential water quality impact of emerging contaminants, N-nitrosodimethylamine (NDMA) and pharmaceuticals and personal care products (PPCPs). MWD has assured its ability to overcome the above mentioned water quality concerns through its protection of source waters, implementation of renovated treatment processes, and blending of its two sources.

Figure 5.2 Helix Water District's R.M. Levy Water Treatment Plant

The Plant receives untreated water containing organic material with a negative electrical charge. Positively-charged chemicals, called coagulants, are added to the water to bind with the organic material and cause it to clump together. The clumps are called floc. When floc forms, it sinks to the bottom of the sedimentation basin. The clarified water, at the surface, flows to the next step in the treatment process. Disinfection destroys or inactivates any organisms in the water. Ozones are used as the primary disinfectant because it offers important advantages:

- Destroys or inactivates a wide range of organisms in water
- Needs little contact time with the water to be effective
- Produces fewer potentially harmful disinfection by-products than other disinfectants
- Removes most of the smell and taste issues people associate with tap water

The ozone is created by by passing oxygen through high voltage generators. Oxygen (O2) molecules break and oxygen radicals (O1) bind to oxygen molecules and form ozone (O3). The ozone molecules bubble up through the water column and destroy or inactivate the organisms present. Filters consist of a layer of anthracite coal (charcoal) and a layer of sand. Filtration works through two basic processes, straining and adsorption. Straining removes material and particles that are too large to pass through the filter material. Adsorption works through similar properties as coagulation. Material and particles that can pass through the filter material adhere or

Figure 5.3 Native Rock adds to the Salinity of the Colorado River Water Supplies

stick to the surface area of the anthracite and sand material. This happens on a very small scale removing very fine material and particles, like pharmaceuticals and personal care products (PPCPs). MWD has assured its ability to overcome the above mentioned water quality concerns through its protection of source waters, implementation of renovated treatment processes, and blending of its two sources.

5.3.2. Groundwater Quality

The Basin provides good water quality that has small amounts of iron and manganese, which the District removes with a specially designed treatment plant located at the Vine Street Filtration Plant (Figure 5.4) located at the District's Administration and Operations facility at 10375 Vine Street, Lakeside. A source water assessment detailing potential sources of contamination completed in January 2010 is available for review upon request at the District office. The remainder of. The District's well fields are sensitive to drought conditions and contamination from local runoff, MTBE, nitrates, and total dissolved solids. Water quality is constantly tested and currently meets all primary and secondary standards for all tested parameters to be within the MCL required by the U.S. EPA and California Department of Public Health.

5.4. IMPACTS OF WATER QUALITY

Water quality dictates the management strategies a water supplier will implement, including, but not limited to, the selection of water sources, treatment alternatives, blending options, and modifications to existing treatment facilities. A direct result of the degradation of a water source is the need to install wellhead treatment before consumption. That is, the poorer the quality of the source water, the greater the need

(and cost) for treatment. This can also decrease water supply reliability. Due to the number of groundwater wells in the District's water system, the District has a degree of redundancy in the event of water quality impairments with a particular well. **Figure 5.1** shows a general procedure that the District may take when one of the District's wells is detected to have water quality concerns.

As a result of CWA's efforts, CWA's 2020 UWMP indicates that none of the water quality challenges described below will impact the reliability of its supplies from 2025-2045. The District's water system is and has been in compliance with all DDW water quality standards. Groundwater quality does not impact water supply at this time due to the combination of imported water and blending prior to delivery to customers.

5.4.1. Impacts of Abandoned Wells

The presence of abandoned groundwater wells represents a potential hazard to the quality of the groundwater basin. Abandoned and improperly destroyed wells can act as conduits for contaminants to reach drinking water supplies. It is vital for the long-term protection of the basin that abandoned wells be located and destroyed. While it is the landowner's responsibility to destroy an abandoned well, local water agencies should be proactive about making sure that abandoned wells are in fact destroyed. The destruction of abandoned groundwater wells should be performed in accordance with state standards. California Water Code Section 13750.5 requires that those responsible for the destruction of water wells possess a C-57 Water Well Contractor's License. Whenever a water well is destroyed, a report of completion must be filed with the California DWR within 60 days of the completion of the work. DDW and an Diego County (County) are responsible for permitting and inspecting construction and destruction of wells.

State policy for all functional and abandoned wells is to establish a "well site control zone", the area immediately surrounding the well alternatively referred to as the "wellhead". The purpose of this zone is to provide protection from vandalism, tampering, or other threats at the well site. The size of this zone can be determined by using a simple radius, or an equivalent area. The well site control zone should be managed to reduce the possibility of surface flows reaching the wellhead and traveling down the unprotected casing. SWRCB-DDW regulations recommend a minimum radius of 50 feet for well site control zones for all public water systems in the state. The

Abandoned private wells can pose a water quality concern if left unaddressed.

requirement applies to abandoned wells as well as functional activities that could potentially lead to "source water contamination" according to EPA regulations (IWRP, 2007). Additionally, well owners are responsible for destroying abandoned wells per the Public Health and Safety Code, Part 9.5, Section 115700.

Figure 5.4 Ammonia Chemical Feed Station at Vine Street Filtration Plant

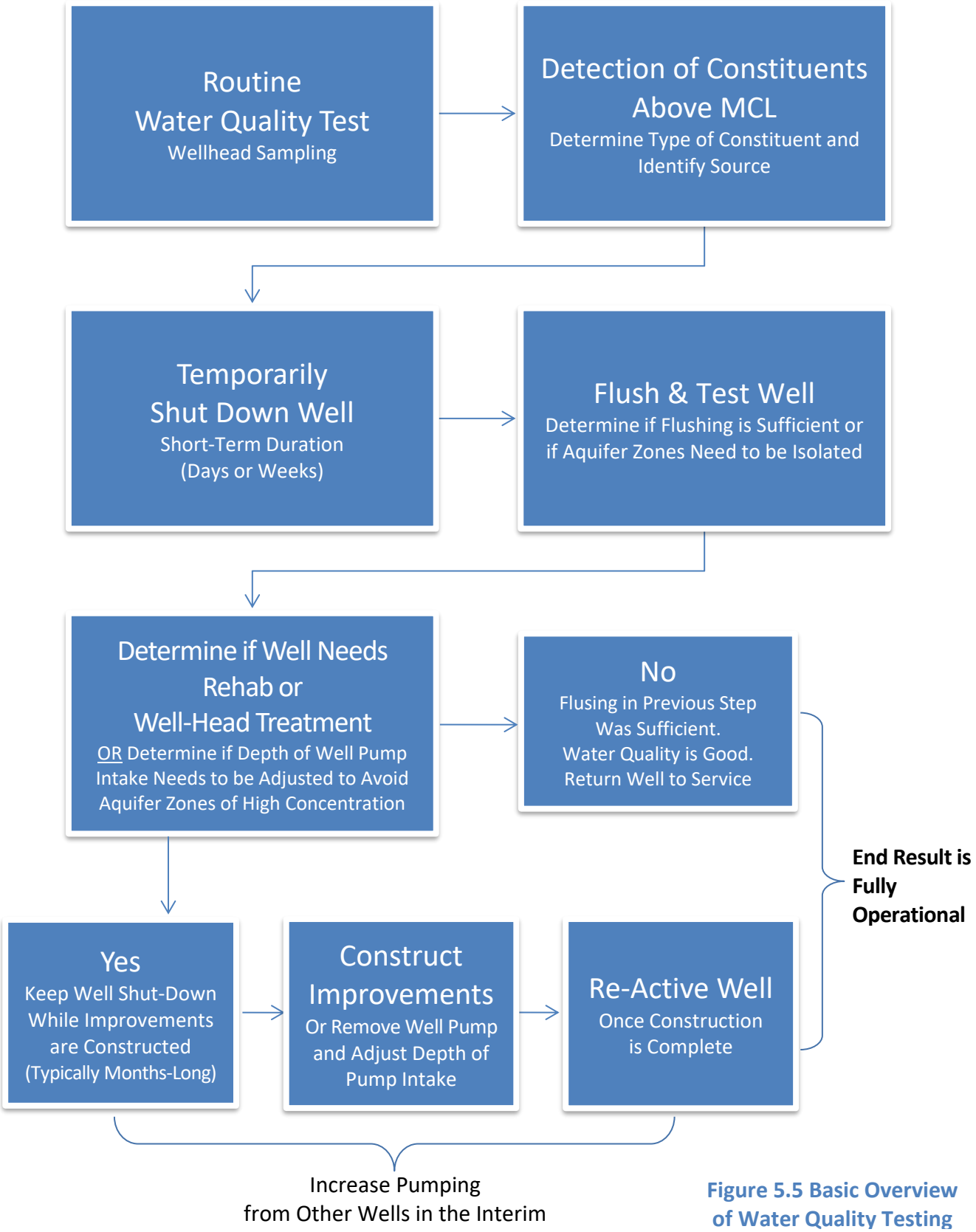

Figure 5.5 Basic Overview of Water Quality Testing

5.4.2. Groundwater Contamination Response

Currently, the District has a Water Shortage Contingency Plan (WSCP) and Asset Management Plan that work in conjunction to handle the effects of potential groundwater contamination and mitigate disasters such as sudden water shortages. This information is provided in **Section 8**.

The WSCP can provide guidance for dealing with the effects of a water shortage, which may be due to groundwater contamination. The District also has emergency response policies in place to respond to emergencies. Two recent tests of the District's emergency response network were seen in the year 2020, when the District responded to the Covid-19 pandemic, and in 2021, when Governor Newsom issued a State of Emergency due to drought that required Statewide correspondence with Level 2 of agency's WSCP. In the event of a groundwater contamination shortage, the District will work in conjunction with CWA and the County's Emergency Operations Center to deal with the effects of potential water shortages caused by severe water quality concerns.

5.4.3. Sanitary Surveys by DDW

The quality of water dictates numerous management strategies a water purveyor will implement, including, but not limited to, the selection of water sources, treatment alternatives, blending options, and modifications to existing treatment facilities. A direct result from the degradation of a water source is increased treatment cost before consumption. The poorer the quality of the source water, the greater the treatment cost. This in turn can decrease water supply reliability by potentially decreasing the total supply.

A Watershed Sanitary Survey is a document that examines the potential sources of contaminants in the watersheds and includes recommendations for managing these effects. Per DDW guidelines, the Watershed Sanitary Surveys are supposed to be updated every five (5) years. In the District's case, the District does not use any surface water, so the District does not prepare Watershed Sanitary Surveys. However, the District is still subject to periodic inspections by DDW staff every three (3) years. The Sanitary Surveys conducted by DDW include inspection and evaluation of the following:

1. Water Sources
2. Treatment
3. Distribution System
4. Finished Water Storage
5. Pumping Facilities
6. Monitoring & Reporting
7. System Management/Operation
8. Operator Compliance (with State Requirements)

5.4.4. Impacts on Management & Reliability

As a result of the District's water quality policies, the District has not experienced water quality issues that affect its ability to meet demands. As noted by Figure 5.5, when wells are offline, additional groundwater will be available through other wells to supplement water supplies. The District will also be constructing additional wells over the course of this UWMP planning period (2050), to create greater operational flexibility and redundancy. Therefore, the District does not anticipate any significant impacts to water supply reliability due to water quality issues.

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Section 6: Water Use

Water use within the District's service area includes residential, commercial, governmental, and landscape irrigation.

6.1. OVERVIEW

The District's water consumption is subject to significant change from year to year. Further, water use within the District's service area is also variable over the course of a given month or climate conditions. This section explores the water usage trends within the District and quantifies total water usage per customer type. In addition, the provisions of Senate Bill x7-7 (Water Conservation Act) are explored in detail.

6.2. RECENT WATER USE CHANGES

As a result of the Coronavirus Disease 2019 (COVID-19) Pandemic, Commercial and Institutional water use had declined. On March 19, 2020, an Executive Order and Public Health Order directed all Californians to stay home, except to go to an essential job or to shop for essential needs. It was then modified on May 4, 2020. The Regional Stay Home Order, announced December 3, 2020, triggered additional restrictions after the region was announced to have less than 15% Intensive Care Unit (ICU) availability. It prohibited private gatherings of any size, closed sector operations except for critical infrastructure and retail, required 100% masking (with certain exceptions as indicated in guidance for use of face coverings), and physical distancing. The Regional Stay Home Order was lifted on January 25, 2021. During his 2021 State of the State Address Governor, Gavin Newsom reported that California had administered nearly eleven (11) million doses of the vaccine, and that the State was well on its

way to seeing an end to this pandemic.

The State Water Resources Control Board – Division of Drinking Water (DDW) has stated that the public water systems (PWS) operations are designated as essential functions and staff and suppliers are not restricted by any current orders. This has allowed for water system operators and maintenance workers to successfully keep the PWS providing safe and clean drinking water to their customers.

The full extent of impacts of the coronavirus pandemic on the water sector are still emerging, but one area that has come to the fore is the effect on municipal water demand. Available data indicate that residential water demand has increased while non-residential demand has decreased. In San Francisco, California, residential demand increased by ten (10) percent, while non-residential demand declined by 32 percent. Residential communities have experienced either modest increases or the smallest decreases. Utilities where total water use has declined during the coronavirus pandemic will see a drop in revenue. Moreover, as businesses reopen and implement hygiene and disinfection practices and as temperatures rise, water use may rise dramatically. Such rapid and dramatic changes in water use can exacerbate existing and reveal new system weaknesses.

The Covid-19 Pandemic had impacted water use in the residential and commercial sectors.

6.3. CURRENT DISTRICT WATER NEEDS

Water use within the District's service area includes residential potable use, landscape irrigation use, commercial and government uses, and of course water losses. Water use is variable and depends on a number of factors which include seasonal climate changes, demographic shifts, changes in land use or redevelopment, and of course legislation. Since the District's service area is largely residential, changes in residential plumbing fixtures and customer usage habits can significantly affect water usage.

6.4. CLIMATE IMPACTS ON WATER USE

California faces changes in water use habits due to a variety of issues including population growth, regulatory restrictions and climate change (including the severe drought of 2020-2022). More specifically, weather unpredictability (more extreme drought and flood events) poses additional challenges to water agencies, not only due to impacts on water supplies but also due to impacts on water demands.

During and since the preparation of the 2020 UWMP, there have been local and statewide influences on water use in the District. California experienced a multi-year drought from 2020 through 2022, with precipitation

consistently below average and record-high temperatures exacerbating water scarcity. Water year 2022, covering October 2021 to September 2022, ended with 77% of average precipitation, following an even drier 2021, making the three-year stretch drier than the previous record dry period of 2013–2015. Snowpack, a critical water source, fell to 35% of average by April 1, 2022, despite a strong start in December. Drought severity varied regionally, with the Central Valley and northern basins experiencing the most extreme conditions.

Environmental Impacts: The drought led to dry soils, reduced water availability, and increased wildfire risk. Wildfire activity fluctuated, with 4.3 million acres burned in 2020, decreasing to 2.57 million acres in 2021 and 362,455 acres in 2022, reflecting both drought intensity and mitigation efforts. Reduced snowpack and low precipitation stressed rivers, reservoirs, and groundwater systems, affecting ecosystems and water supply reliability.

Agricultural and Economic Impacts: Agriculture was heavily affected, particularly in the Sacramento Valley and rice-producing counties. In 2022, 750,000 acres of farmland were idled, more than half in the Sacramento area. Direct economic losses to farm activity were estimated at $1.2 billion in 2022, up from $810 million in 2021, with additional losses of $845 million in food processing industries, totaling $2 billion in value-added losses and 19,420 jobs lost. Increased evapotranspiration due to higher temperatures further stressed crops, requiring more irrigation to maintain productivity.

Regional and Temporal Variability: Drought intensity varied across the state and over time. In 2020, drought conditions were less severe, while 2021 and 2022 saw widespread and more intense drought, particularly in the Central Valley. Northern California basins faced early water curtailments, and the Sacramento Valley experienced unprecedented climatological stress due to limited groundwater pumping capacity. Despite these challenges, mitigation measures such as land idling, water trading, and increased groundwater pumping helped reduce potential losses.

Changes in water usage habits have a special concern for the State due to the inter-dependence of many agencies for the transfer and use of water. For instance, some agencies are unable to produce water locally and thus entirely dependent on imported water sources, while others are able to produce all water locally (i.e. groundwater). Further, some agencies are able to reduce demands with minimal economic impacts (only water sales revenues), while other agencies will suffer economically (i.e. agricultural & industrial

users) if required by State or local agencies to reduce water consumption. Thus, the State will likely face challenges in the near future to find the correct balance of water supply allocations to meet demands under various weather conditions. For State Water Project (SWP) water rights holders, this is an all-too critical issue.

6.4.1. California Water Plan Update 2023

DWR's California Water Plan Update 2023 emphasizes the urgency of climate change impacts, the need for watershed resilience, and the importance of equity in water management. It aims to ensure that all Californians benefit from water resources that are sustainable and resilient to climate change. There are three themes including:

Addressing Climate Urgency: The plan recognizes the increasing variability in California's hydrology due to climate change and promotes adaptive infrastructure and emergency planning to enhance resilience.

Strengthening Watershed Resilience: It encourages coordinated efforts at the watershed level to integrate engineered systems with natural processes, aiming for multiple benefits across water, agriculture, and ecology.

Achieving Equity: For the first time, the update includes a dedicated chapter on the challenges and resources of California Native American Tribes, ensuring that Indigenous knowledge and priorities are integrated into statewide planning.

6.5. WATER USE

6.5.1. Past Water Use

There was a decline in water use during the early 1990s when water conservation measures were first adopted, followed by a gradual increase for the following 10 years to about 5,500 AFY at 2007. Water usage decreased by more than 20% in 2020 due to California statewide water restrictions after a slight increase in 2013. The 20% reduction in 2020 is in addition to the 20% in 2009 and 2010 due to drought conditions requiring water use restrictions with the adoption of the Conservation Plan and the increasing cost of water. There has been a decrease in water usage when compared with over 20 years ago in spite of a population increase.

Table 6.1 District Past Water Use

Year	Total Potable Consumption (AF)
2015	3,707
2016	3,185
2017	3,380
2018	3,648
2019	3,472
2020	3,472
Average:	3,477

As the table suggests, water use has been fluctuating, although generally trending downward since 2015. This correlates with the increased water restrictions and conservation measures. Based on the numbers in **Table 6.1**, water use had decreased by nearly 6% since 2015.

6.5.2. Recent Water Use

Table 6.2 shows the District's water consumption over the past five (5) years. As indicated by **Table 6.2**, water demands within the District's service area over the past five (5) were met by groundwater from the Santee-El Monte Basin (Basin) and imported water from the San Diego County Water Authority (CWA).

Table 6.2 District Recent Water Use

Year	Total Potable Consumption (AF)	Per Capita (GPCD)
2021	3,696	98.7
2022	3,514	93.1
2023	3,166	84.3
2024	3,183	84.7
2025	3,452	90.2
Average:	**3,402**	**90.2**
2020 Water Use Target:		**141.6**

Annual water use since 2021 has ranged from about 3,166 AF to 3,696 AF [average 3,402 acre-feet per year (AFY)]. As indicated by the table, water use has been fluctuating, although generally trending downward since 2021.

6.6. WATER USE BY SECTOR

6.6.1. Service Connections/Accounts

The District maintains a database that compiles data on water use, categorized by the type of use. This data comes from meter records of all District customers and is recorded internally by the District on a semiannual basis in its Water Consumption Report, which includes water volume data for the current fiscal year of 2024-2025. For the purpose of this 2025 update to its UWMP, the District has adapted data obtained from its Water Consumption Report by grouping some sector categories to better align the District's sector labels with the descriptions and labeling of sectors that are set forth by the Water Code.

The District does not provide any sales to agriculture, industrial, other agencies, saline water intrusion barriers, groundwater recharge, or conjunctive use. The total number of service connections and water consumption by sector is shown in **Table 6.3** and **Table 6.4**, respectively.

Table 6.3 Service Connections (2025)

Sector	Service Accounts
Single Family Residential	6,253
Multi-Family Residential	430
Commercial/Institutional	349
Industrial	0

Sector	Service Accounts
Landscape Irrigation	30
Agricultural	0
Total Connections:	**7,062**

Nearly 95 percent of the total service connections are residential (single- or multi-family), since the District consists primarily of residential properties. Single-family comprises the largest individual sector with 89 percent of the total service connections. Commercial and institutional accounts comprise about 5 percent of the total accounts.

District's water rates are listed in **Section 9.4** of this UWMP. Water sales data is compiled by District water staff and submitted to DWR in the Electronic Annual Report (eAR).

The total water consumption by customer type since 2021 is shown on **Table 6.4**. As noted by the table, Single-Family Residential accounts are the highest consuming sector in the District since most of the District is zoned for single-family accounts (with higher densities for multi-family accounts).

Table 6.4 Recent Water Demand by Sector (AF)

Sector	2021	2022	2023	2024	2025
Single Family Residential	2,262	2,151	1,927	1,817	2,007
Multi-Family Residential	965	917	822	895	890
Commercial/Institutional[1]	370	351	315	345	407
Landscape Irrigation	44	42	38	49	63
Other	55	53	47	42	48
Total Water Sales:	**3,696**	**3,514**	**3,149**	**3,148**	**3,414**
Water Loss (Real Loss + Apparent Loss)	146	117	119	167	87[2]
Total Water Consumption (Total Supply into System):	**3,842**	**3,631**	**3,268**	**3,315**	**3,501**

(1) Includes government use
(2) Near 0 real loss to be further reviewed in future Audits.

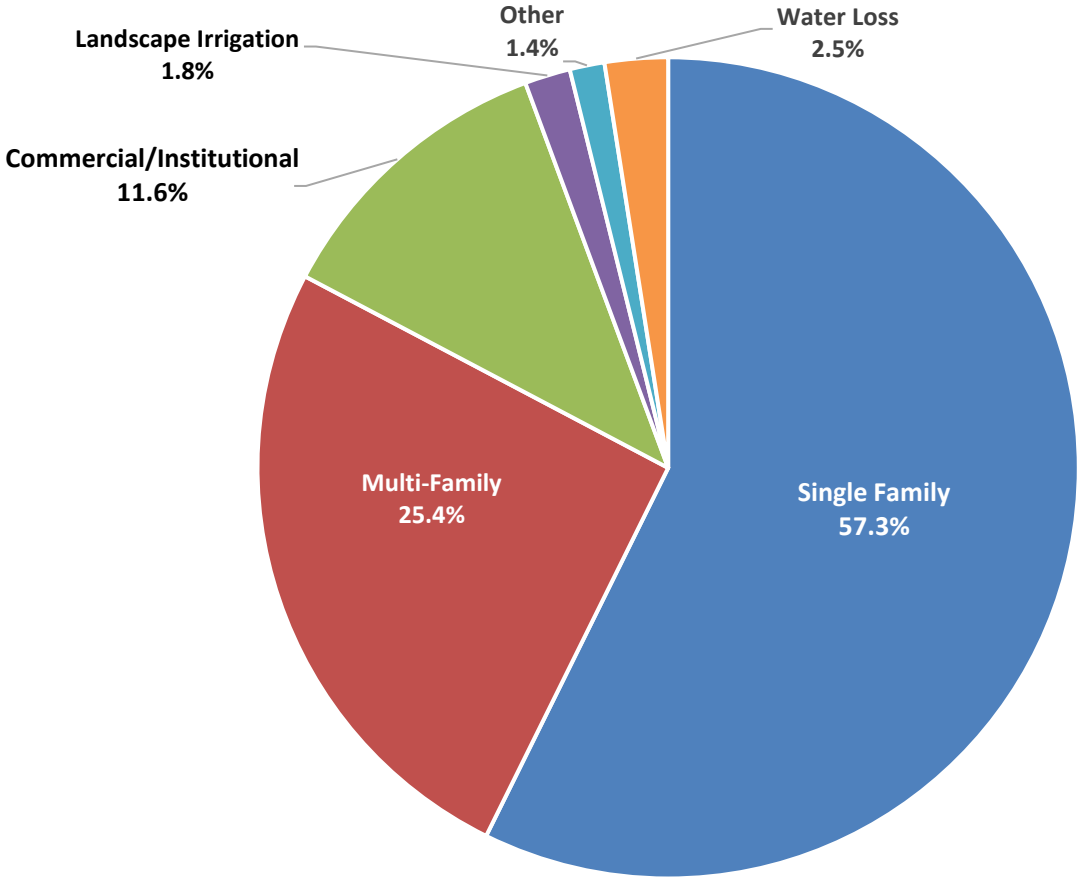

Figure 6.1 Current Water Demand by Sector (in 2025)

6.6.2. Distribution System Losses

As indicated by **Table 6.4**, the District's Water Loss ranged from 87 to 167 AF, which on average is 3.6 percent of the total water supply into the District's distribution system. Water Loss is determined as the sum of apparent loss and Real Loss, as determined in each years Validated Water Loss Audit. Examples of Water Loss consists of routine flushing, unmetered use, and main breaks, to name a few. Although water losses have cost impacts on water agencies, they cannot be prevented entirely.

Instead, effort is given to controlling the quantity of water losses (to a cost-effective extent) in order to reduce the cost impact of water losses on water operations. For this reason, the District's Staff prepares annual Water Loss Audits, using AWWA software. The 2025 Audit shows that the District's Leakage Index (the ratio of real loss to unavoidable loss) was near 0, which is below the 10th percentile of Water Purveyors. The District's Validated Water Loss Audits can be located on DWR's WUE Portal:

wuedata.water.ca.gov/awwa_plans

6.6.3. 2028 Water Loss Standard

California Water Code (CWC) Section 10608.34 requires SWRCB to develop water loss performance standards for urban retail water suppliers. Executive Orders B-37-16 and B-40-17 direct SWRCB and DWR to minimize water waste through system leaks. Water loss performance standards were developed through a rulemaking that became effective in 2023. As part of a proposed water conservation regulation, urban retail water suppliers (not individual households or businesses) will be held to "urban water use objectives." An urban water use objective is the sum of standard-based budgets for a subset of water uses, such as residential outdoor use, as further described in **Section 6.7.**

Retail Suppliers must meet water loss standards by January 1, 2028, calculated on a system level. Ongoing compliance will be on a three-year average basis. The baseline period for the 2028 Water Loss Standard is 2017-2020. Real loss and apparent losses used to calculate the standard are the average real losses and apparent losses in the baseline period. SWRCB staff can initiate an adjustment process for any system that has significant changes in data compared to the baseline if at least three (3) compliance assessments have passed. Suppliers can request an adjustment to the baseline period data if significant data improvements have been made.

Suppliers must either meet their apparent loss standard (equivalent to their baseline period (2017-2020) apparent losses) or submit an inventory of all apparent losses. Meeting the apparent loss standard is not

required as long as an inventory of apparent losses is submitted.

The District's Baseline Real Loss is 21.2 gallons per service connection per day (GPSCD) and Real Loss Standard is 21.2 gpscd, resulting in no Required Real Loss Reduction from Baseline. Apparent Loss Standard is 5.6 gpscd.

6.7. URBAN WATER USE OBJECTIVE

The "Making Conservation a California Way of Life" regulation went into effect on January 1, 2025 and establishes unique efficiency goals for each urban retail water supplier in California and provides those suppliers flexibility to implement locally appropriate solutions. The regulation seeks to cultivate long-term practices that help communities adapt to California's ongoing water challenges. The regulation requires suppliers to:

- Annually calculate urban water use objectives for a subset of urban water uses: residential indoor water use, residential outdoor water use, real water loss, and commercial, industrial, and institutional (CII) landscapes with dedicated irrigation meters (DIMs).
- Carry out performance measures for CII water us.
- Annually report to SWRCB.

Thie District's Compliance Summary Report, prepared by SWRCB staff on February 23, 2026, summarizes the supplier's compliance with annual reporting requirements under the "Making Conservation a California Way of Life" regulation for the state fiscal year 2024-2025. This report was due on January 1, 2026.

6.7.1. Key Highlights from the Report

The following points are a summary of Sections 3 through 7 of the District's Compliance Summary Report:

- The report was submitted on time, on December 18, 2025.
- The supplier has met its calculated objective for fiscal year 2024-2025.1
- The supplier has no approved variances or temporary provisions for fiscal year 2024-2025.
- The report contains 1 data quality flag, which is that CII Classifications were not reported.

6.7.2. Objectives Calculated with Future Standards

The water use objectives will become progressively smaller as standards change through 2040. The following **Table 6.5** compares the current water use objective and reported water use to future efficiency requirements; the full summary can be found in Section 8 of the District's Compliance Summary Report. While this

table does not capture how future water use objectives will be influenced by changes in local climatology, service area population, square footage of irrigated landscapes, and other data that will factor into future water use efficiency objectives, it is provided as a tool for local planning purposes.

Table 6.5 Objectives Calculated with Future Standards

Fiscal Year	FY 24-25 Use (AF)	Calculated/Projected Objective (AF)	Current use lower than objective?
24-25	3,011.8	4,883.8	Yes
25-26	3,011.8	4,723.3	Yes
30-31	3,011.8	4,524.5	Yes
35-36	3,011.8	3,983.4	Yes
40-41	3,011.8	3,721.9	Yes

As the table suggests, the District has met its calculated objective for fiscal year 2024-2025. The District's Compliance Summary Report can be located on DWR's WUE Portal:

wuedata.water.ca.gov/uwuo_plans

6.8. WATER CONSERVATION ACT

6.8.1. Act Background (SBx7-7)

Due to the limited amount of water allowed to be pumped in the San Joaquin Delta, the CA Legislature drafted the Water Conservation Act of 2009 (SBx7-7) to protect statewide water sources. The legislation called for a 20 percent reduction in water use in California by the year 2020. The legislation amended the Water Code to call for 2015 and 2020 water use targets in the 2010 UWMPs, updates or revisions to these targets in the 2015 and 2020 UWMPs, and allows DWR to enforce compliance to the new water use standards. In essence, the bill requires each urban retail water supplier to develop urban water use targets to help meet the 20 percent goal by 2020 and an interim 10 percent goal by 2015.

The bill establishes methods for urban retail water suppliers to determine their targets to help achieve statewide water reduction targets, which may or may not be a strict 20 percent level. The retail water supplier must select one of the four target-setting methods as described in **Section 2.4.3**. The retail agency may also choose to comply with SBx7-7 as an individual or as a region in collaboration with other water suppliers. Under the regional compliance option, the retail water supplier is mandated to report

the water use target for its individual service area. The bill also includes reporting requirements in the 2010, 2015, and 2020 UWMPs. Beginning in 2016, failure to comply with interim and final targets makes a retail agency ineligible for grants and loans from the state needed to attain water self-sufficiency by 2020; however, if an agency which is not in compliance documents a plan and obtains funding approval to come into compliance, it could then become eligible for grants or loans.

Wholesale water suppliers, including CWA, are not required to determine baseline daily per capita water use, urban water use target, interim urban water use target, or compliance daily per capita water use. Instead, wholesale water suppliers are required to include in their UWMPs discussions of programs they intend to implement to support the retail water suppliers, such as the District, in attaining their reduction goals and targets.

Figure 6.2 California's 2020 Water Conservation Goals

Figure 6.3 California's 2020 Water Conservation Goals

Figure 6.4 South Coast Hydrologic Region (DWR's California's Groundwater Update 2025)

6.8.2. Exempt Agencies

If an agency has a baseline per capita water use of 100 GPCD or less, that agency will not have to adhere to any reduction targets as that agency is already considered water efficient. In such a case, that agency must document in subsequent UWMPs that its water usage is still under 100 GPCD.

6.8.3. SBx7-7 Baseline & Target

There is a 10 year and a 5-year baseline period to determine what target must be met to comply. District 10-year baseline period is from 1999 to 2008 and the 5-year baseline period is from 2003 to 2007. For those periods gross water use is compared with populations to get gpcd (gallons per capita per day) or how many gallons each person uses each day on average for each year. Populations figures used for this calculation are from DWR's Population tool online which is slightly lower population numbers when compared with SANDAG. Using DWR's population estimates The District's baseline gpcd is 155.28 for the 10-year baseline period and 155.75 gpcd for the 5-year baseline period. As you can see both are very close so The District's baseline target for 2020 is 20% less than the baseline of 155 gpcd which is a target of 124 gpcd by 2020. This is a fairly low gpcd due to past conservation efforts and conservation hardening which is why the District decided to use Target Methodology 3 for the South Coastal Hydrological Region which has a 2020 regional target of 149 gpcd which was met.

Table 6.5 provides historical data on The District's daily per capita water use (GPCD). SBX7-7 was enacted to require retail urban water agencies within the state to achieve a 20 percent reduction in urban per capita water use by December 31, 2020. The District's 10-year average from 1999 to 2008 is 155 gpcd.

The selected SBx7-7 target is 142 GPCD (5% reduction from the South Coast HR's target) because this amount is greater than 124 GPCD (20% from its 10-year baseline). Since the District's minimum reduction requirement of 148 GPCD (5% reduction from 5-yr. Baseline) is greater than the 5% reduction from the regional target of 149 GPCD, the District can select **Method 3** (142 GPCD) as its 2020 water use target. Therefore, the District's compliance target for 2020 per capita water consumption was 142 GPCD in accordance with Section 10608.22 of the Code.

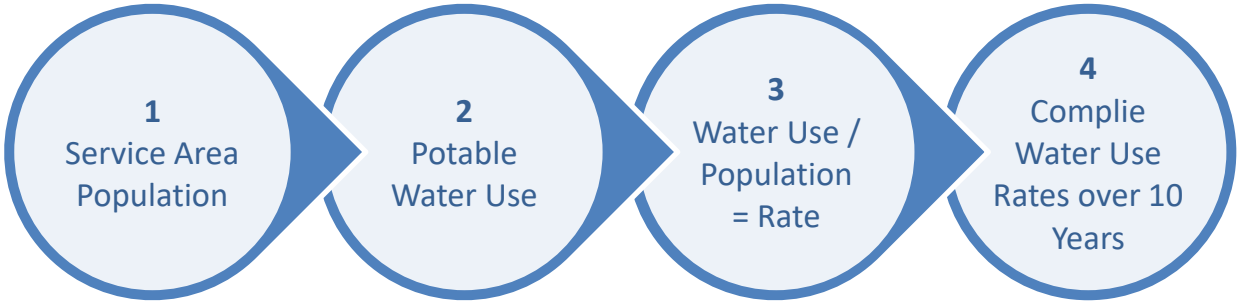

Figure 6.5 Procedure for Determining Baseline Per Capita Water Use

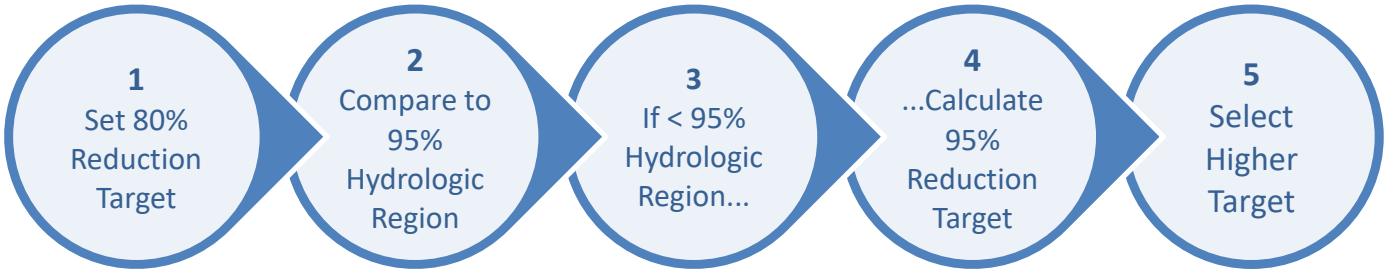

Figure 6.6 Procedure for Determining Target Per Capita Water Use

Table 6.6 Lakeside Water District Water Use (GPCPD)

Year	Service Area Population	Total Potable Consumption (AF)	Per Capita (GPCD)
1999	30,746	4,736	137.5
2000	31,000	5,731	165.0
2001	30,943	5,321	153.5
2002	30,935	5,709	164.8
2003	30,927	5,191	149.8
2004	30,914	5,858	169.2
2005	30,915	4,981	143.8
2006	30,897	5,390	155.7
2007	30,884	5,541	160.2
2008	30,862	5,298	153.3
		10-yr. Baseline (1999 - 2008) (SB7: 10608.20)	**155.4**
		5-yr. Baseline (2003-2007) (SB7: 10608.22)	**155.8**
		State Hydrologic Region Baseline	**180**
		State Hydrologic Region Target	**149**

Table 6.7 Lakeside Water District SBx7-7 2020 Water Use Targets

Min. Reduction Requirement (10608.22)	20% Target (10608.20) (b)(1)	5% Reduction from Regional Target (10608.20) (b)(3)
148	**124**	**142**
	2020 Per Capita Target:	**142**
	Interim (2015) Target:	**151**

6.8.4. SBx7-7 Target Compliance

Although the requirements of SBx7-7 seemed stringent, it is noteworthy to mention that the District has seen an increase in water efficiency in the past ten years. This is due in part to State legislation, stricter conservation measures, saturation of water-saving plumbing fixtures, and overall water conservation awareness. As indicated by **Table 6.2**, the District has already achieved not only its interim (2015) target, but also its final 2020 target. The District can maintain its consumption rates below the SBx7-7 target by continuing to focus on water conservation.

6.9. Codes and Other Considerations

Based on the DWR's endorsement in its UWMP Guidebook, CWA selected an off-the-shelf application developed by the Alliance for Water Efficiency (AWE) to estimate conservation savings for the San Diego region. The AWE Conservation Tracking Tool (AWE Tool) is an industry standard planning model that provides granular estimates of existing and future "passive" or code-based water savings and "active" savings resulting from the implementation of demand management programs. Estimates of water conservation savings were developed for each of CWA's member agencies, including the District, using the AWE Tool.

Per Section 2.4.2 of CWA's 2020 UWMP, key water savings assumptions are derived based on historical program efficiencies, current regional water savings assumptions that serve as the basis for regional incentives, and efficiency estimates by activity type that are contained in the AWE Tool Library.

Future active conservation savings are set at the 2020 level of conservation program activity moving forward, absent a large-scale turf replacement program and state-mandated water-use reductions. The passive conservation element includes estimated future savings from appliance standards and code changes, as well as savings from 2015 Model Water Efficient Landscape Ordinance (MWELO). An 80 percent MWELO compliance level is assumed on new residential development and a majority of this savings was assumed to continue over the UWMP planning horizon. To account for conservation included in the baseline regional demand forecast, passive water savings from before 2018 were subtracted from the estimated water savings.

A summary of the codes, standards and ordinances are provided below:

- 1992 National Energy Policy Act (EPAct) set the standard for:
  - Residential toilets
  - Commercial toilets
  - Residential showerheads
  - Residential clothes washers
  - Residential dishwashers

- California AB 715 requires only high-efficiency toilets be sold or installed as of January 1, 2014
- Title 20 of CA Code of Regulations for commercial pre-rinse spray valves as of January 1, 2006
- 2015 MWELO
- Passive Landscape Conservation (active landscape savings that migrate to passive)
- Passive Turf Removal (residential customers that convert turf to water efficient landscape outside of rebate program)

6.10. PROJECTED WATER DEMAND

Future water use projections must consider significant factors on water demand, such as development and/or redevelopment, and climate patterns, among other less significant factors that affect water demand. Climate conditions will continue to be a major influence on demand as drought conditions will increase demand at a time when these supplies are limited. With open lots in the District available for development, the District has more potential for new development than typical "built-out" urban areas in Southern California. Whether this is probable remains to be seen. If this development occurs, this will result in greater total water consumption if the rate of consumption remains steady.

6.10.1. Passive Savings

For the sake of future water demand projections in this UWMP, this "passive savings" is taken into consideration. It is practical to assume that water use efficiency will continue to increase own its own over the next couple of decades. In other words, the District should experience some "passive savings" for the foreseeable future driven in part by State and local laws governing water use. **Table 6.7** lists projected water use by sector assuming a "passive savings" of about 0.5% annually and beginning with a consumption rate of 90.2 GPCD. A passive savings of 0.5% annually should provide a conservative yet practical estimate for the District.

Over time, "Passive Savings" will help offset water demands from new growth in the District.

6.10.2. Low-Income Water Demands

One significant change to the UWMP Act since 2005 is the requirement for retail water suppliers to develop water use projections for "low-income" households at the single- family and multi-family level. These projections assist retail suppliers with compliance with Section 65589.7 of the Government Code, which requires suppliers to grant a priority for the provision of service to low-income households. Consistent with this Code section, a low-income household is defined as a household earning 80 percent or less of the area's median income.

Lower income household usage in 2020 was 24 acre feet, and only consisted of 165 residential apartment units. Lower income residential usage is less than one percent of the District's overall usage. Therefore, it is estimated that approximately 1 percent of the projected water demands within the District's service area will be for housing needed for low-income households. **Table 6.8** provides the projected water needs for low-income households. The projected water demands shown here represent 1 percent of the projected residential water demand.

6.10.3. Projected Water Use by Sector

For planning purposes, the District's projected water use for 2030-2050 is broken down by sector in **Table 6.7**. The estimates per sector are based on the ratios of the sectors shown in **Table 6.4** and **Figure 6.5**. **Figure 6.10** also shows the Projected Water Demand by Sector (in 2050).

Table 6.8 Projected Water Demand by Sector

Sector	2030	2035	2040	2045	2050
Water Service Area Population	35,415	35,790	36,165	36,540	36,915
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	88.0	85.8	83.7	81.6	79.6
Demands					
Single Family Residential	2,002	1,973	1,945	1,916	1,888
Multi-Family Residential	884	871	859	846	834
Commercial/Institutional[1]	352	347	342	337	332
Landscape Irrigation (Potable)	47	46	45	45	44
Other	48	48	47	46	46
Total Water Sales:	**3,333**	**3,285**	**3,238**	**3,190**	**3,143**
Water Losses (Real Loss + Apparent Loss)	156	154	152	149	147
Total Water Consumption (Total Supply into System):	**3,490**	**3,439**	**3,389**	**3,340**	**3,291**

(1) Includes government use

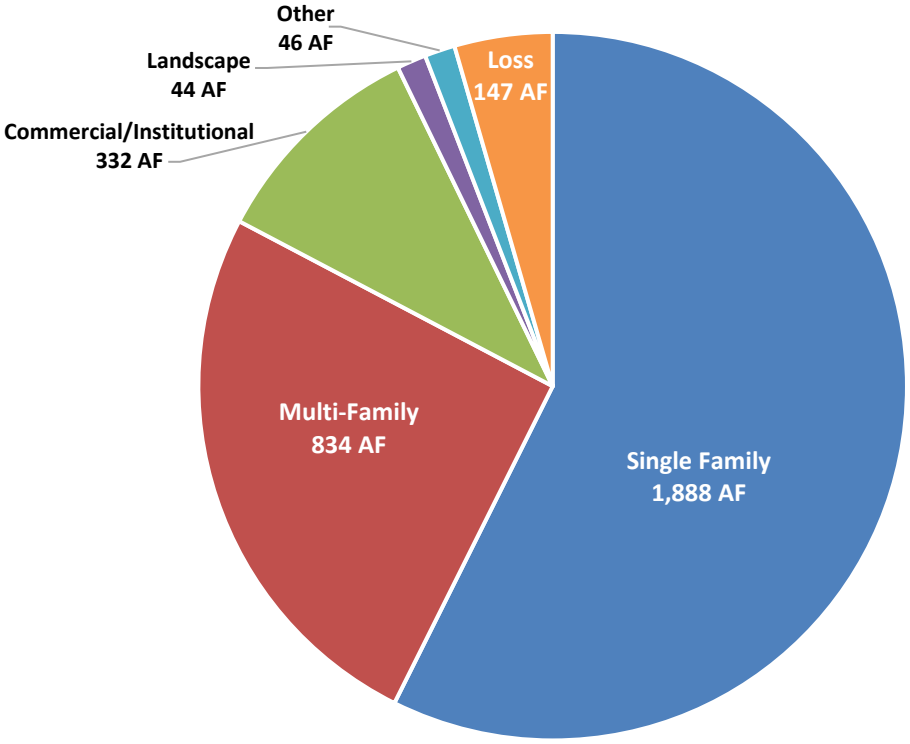

Figure 6.7 Projected Water Demand by Sector (in 2050)

7

Section 7: Reliability Planning

The recent drought in the Lower Colorado River Basin (pictured), has brought changes to water supply management.

7.1. OVERVIEW

Drought conditions continue to be a critical issue for Southern California's water supply. The recent drought of 2020-2022 has impacted deliveries of imported water to Southern California cities. The documented deliveries of water from the State Water Project (SWP) for Water Year 2022 (October 1st, 2022, to September 30, 2023) indicate that the volume of water delivered to SWP Contractors was the lowest since Water Year 2020. Therefore, it is important that agencies manage water consumption and reduce reliance on imported water through local groundwater and surface water supplies. Water agencies should prepare for prolonged droughts for up to five (5) years to ensure a reliable supply of water.

Since the District does rely on imported water, drought conditions are a critical issue for the District's water supply. A strong understanding of water supply sources, and the current state, regional, and local issues affecting those sources, are a first step to properly managing supply and demand. Water agencies should prepare for prolonged droughts for up to five (5) years to ensure a reliable supply of water.

This Section discusses historic and recent droughts in the State and in the region. This Section also compares projected supply to projected demand over a 25-year planning period (through 2050) for various climate scenarios. Demand and supply projections are provided in **Tables 7.1** - **7.7**.

7.2. HISTORIC DROUGHTS

Climate data has been recorded in California since 1858. Since then, California has experienced several periods of severe drought, including: 1928-34, 1976-77 and 1987-91, 2007-2009, 2011-2017 and most recently in 2020-2022. In addition to these, California has also experienced several periods of less severe drought. Among the aforementioned droughts, the year 1977 is still considered to be the driest year of record in the Four Rivers Basin by DWR (these rivers flow into the Sacramento Delta and are the source of water for the State Water Project) which had an all-time low of 15 million acre-feet of average annual runoff.

In 1983, as a result of previous droughts, the State legislature enacted the UWMP Act, which requires the preparation of an UWMP. Several subsequent amendments have been made to the Act to ensure such items as public coordination, recycled water, and contingency response plans are included in UWMPs.

In 1991, as a result of the 1987-1991 drought, over 100 water agencies and environmental groups came together to form the California Urban Water Conservation Council (CUWCC) to manage the impacts of drought and promote water conservation. In January 2018, the CUWCC became the California Water Efficiency Partnership (CalWEP), and consists of over 200 water agencies and private companies. CalWEP assists its member agencies with public policy, research, and education tools.

As a result of the drought of 2007-2009, Governor Schwarzenegger signed the Water Conservation Act of 2009 (SBx7-7), which is perhaps the strongest piece of legislation to date on water conservation, requiring mandatory water conservation up to 20 percent by 2020.

In January of 2014, former Governor Brown declared a state of emergency and directed state officials to take all necessary actions to prepare for water shortages. As the drought prolonged into Water Year 2015, former Governor Brown gave an executive order in April 2015, which mandated a statewide 25% reduction in water use, with each agency assigned specific target reductions.

At the local level, water agencies have enacted their own ordinances to deal with the impacts of drought. The District's Water Shortage Contingency Plan (WSCP), as contained in **Section 8**, deals with Water Conservation.

7.3. RECENT DROUGHT (2020-2022)

A significant and prolonged drought hit the state of California in 2020-2022. The drought depleted reservoir levels all across the state, as reflected by **Figure 7.1**. On July 8, 2021, Governor Newson declared a state of emergency and issued an Executive Order

calling for a statewide voluntarily reduction of 15% from consumers 2020 levels in order to preserve the State's surface and groundwater supplies and better prepare for the potential for continued dry conditions next year, and to join existing efforts by agricultural water users, public water systems, and governmental agencies to respond to water shortages. On October 19, 2021, Governor Newsom issued an Executive Order declaring a statewide drought emergency.

Figure 7.1 Governor Newsom at Lake Mendocino in Ukiah on April 21, 2021

In May 2022, the Governor ordered the SWRCB into evaluate the adoption of regulations banning irrigation of "non-functional" turf (or grass), such as decorative grass adjacent to large industrial and commercial buildings. The ban would not include residential lawns or grass used for recreation, such as school fields, sports fields and parks. The DWR estimated this ban alone would result in potential water savings of several hundred thousand acre-feet. An acre-foot of water serves the needs of approximately three households for a year.

In March 2024 DWR finalized the 2024 State Water Project Long-Term Drought Plan. The 2024 State Water Project Long-Term Drought Plan consolidates information and actions taken during past droughts along with descriptions of the actions taken by the SWP to plan for and prepare for future droughts.

The scope of the SWP's drought planning activities is driven by the role the SWP plays within California's water management system during times of drought. The SWP's planning is specific to its role as a wholesale water provider. The SWP's drought planning is necessarily different from the planning by other water managers that are responsible for directly providing water to end-use customers. For these water managers, drought planning generally includes identifying a portfolio of different water supplies and demand management actions that ensure a minimum amount of water can be provided with a set degree of certainty. Retail water suppliers have a "duty to serve" water demand within their service areas and must have detailed contingency plans for meeting demand during drought conditions.

2024 SWP Drought Plan consolidates information and actions taken during past droughts.

Although the recent droughts have more significantly impacted northern and central-valley agencies that use SWP water for agriculture, the District is indirectly impacted by the recent drought conditions on Northern California Waters since this water source is the majority source of water imported from the MWD.

7.4. STATE WATER SUPPLY RELIABILITY

As a result of continued drought challenges to the State's water supplies, SWP Contractors understand the unpredictability of imported water allocations from the SWP.

With participation of the SWP Contractors, DWR strives to meet the water needs of Southern California by developing new projects to increase the capacity of its supplies while encouraging its member agencies to develop local supply projects to meet the needs of its customers. Also, DWR is committed to developing and maintaining high-capacity storage reservoirs, including both DWR-owned and Contractor-owned (such as Diamond Valley Lake, an MWD-owned reservoir, the largest in Southern California), to meet the needs during times of drought and emergency.

The large reservoirs help to avoid the repercussions of reduced supplies not only from the SWP but also the Colorado River Aqueduct (CRA). Throughout the Southern California Region, a total of three (3) DWR-owned reservoirs, nine (9) MWD-owned reservoirs, and twenty-four (24) CWA reservoirs contain up to 2.2 million acre-feet (MAF) of water storage.

One of the State's largest reservoirs, Lake Oroville in Butte County, witnessed low water conditions at Enterprise (**Figure 7.5)**. On this date (October 4, 2022), the water storage was 1.22 MAF, 35 percent of the total capacity.

Figure 7.6 shows an aerial view of high water conditions at Enterprise Bridge. On this date (June 12, 2023), the water storage was 3.52 MAF, 100 percent of the total capacity. The 2025 calendar year was also below the average, with a total recorded rainfall at the District's nearby CIMIS stations at Otay Lake (#147) and at Escondido (#153) of 9 and 9.3 inches, respectively (**Section 2.4**).

7.4.1. State Water Project (SWP) Reliability

As a SWP contractor, MWD has a "Table A" allocation of up to 1,911,500 AFY (per year). Since MWD began receiving SWP water, however, the average amount of water received each year is roughly 58% of the full Table A amount. On an annual basis, each of the 29 SWP Contractors request amounts of SWP water based on their anticipated yearly demand. Each SWP contractor's Water Supply Contract contains a "Table A" amount that identifies the maximum amount of

water that a contractor may request. However, the amount of SWP water actually allocated to contractors each year is dependent on a number of factors that can vary significantly from year to year. The availability of SWP supplies is generally less than their full Table A amounts in many years and can be significantly less in very dry years. After receiving the requests, DWR assesses the amount of water supply available based on precipitation, snowpack on Northern California watersheds, volume of water in storage, projected carry over storage, and Sacramento-San Joaquin Bay Delta regulatory requirements. For example, according to the State Water Project Delivery Reliability Report (2023), the total SWP annual delivery of water to contractors ranged from a low of 278 thousand acre-feet (TAF) in 2022 to a high of 3,094 TAF in 2017.

SWP supplies are typically less than the maximum "Table A" amounts requested by the Contractors each year.

Due to the uncertainty in water supply, contractors are not typically guaranteed their full Table A amount, but instead a percentage of that amount based on available supply. For instance, the current DWR Notice to Contractors 26-01 (January 2026) indicates that the initial allocation is set at 30%, which is up from 10% per initial allocation. For MWD, the current allocation based on the Notice to Contractors for this year is set at 573,450 AF.

The reliability of the SWP impacts the Contractors ability to plan for future growth and supply. SWP Contractors can seek out other local supply sources or transfer agreements (such as transfers with Colorado River rights holders). Although not directly important for the District, matters involving the SWP do impact the District indirectly.

Figure 7.2 Lake Oroville During Drought of 2020-2022 (October 4, 2022)

Figure 7.3 Lake Oroville After Drought (June 12, 2023)

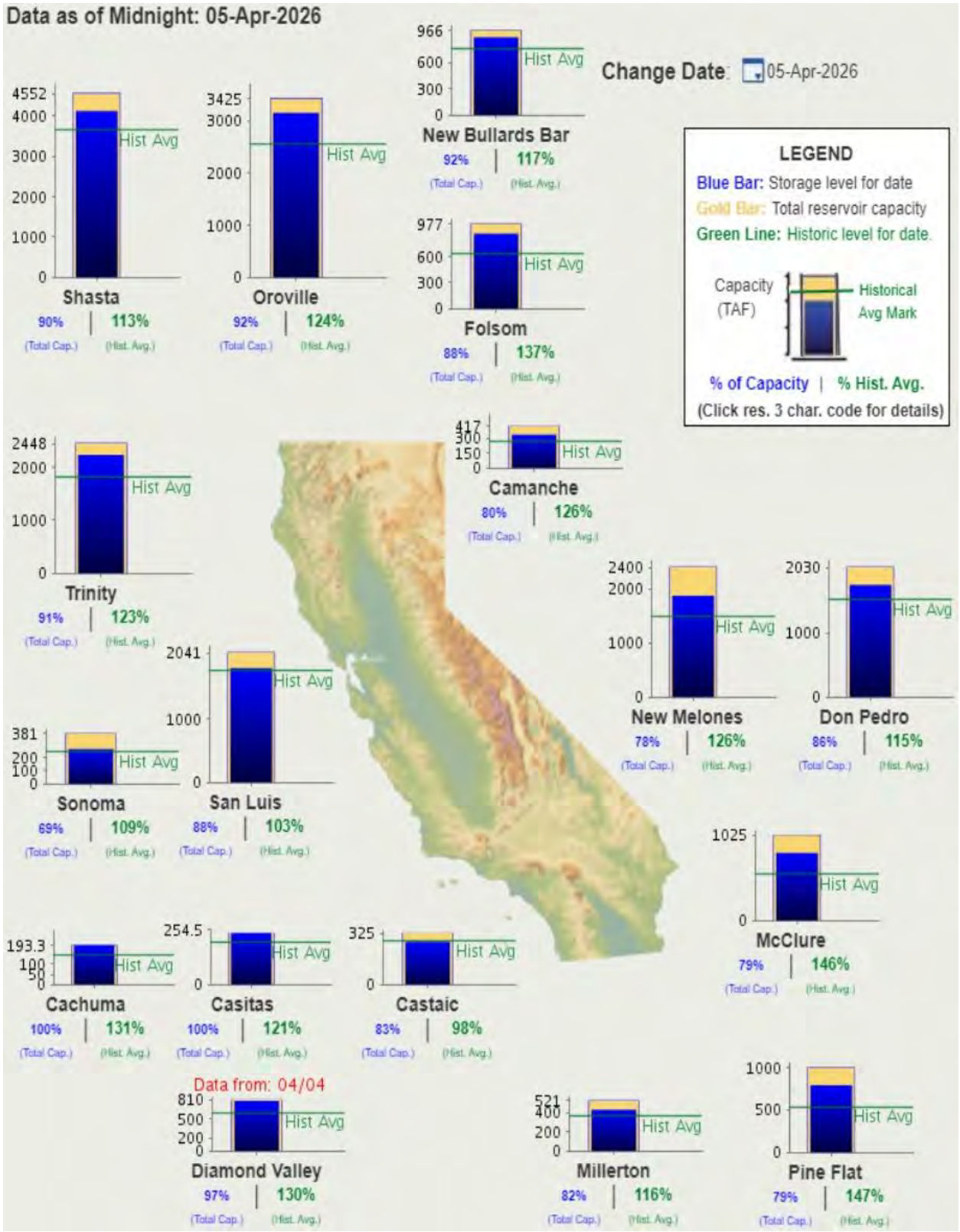

Figure 7.4 California State Reservoir Levels (April 2026)

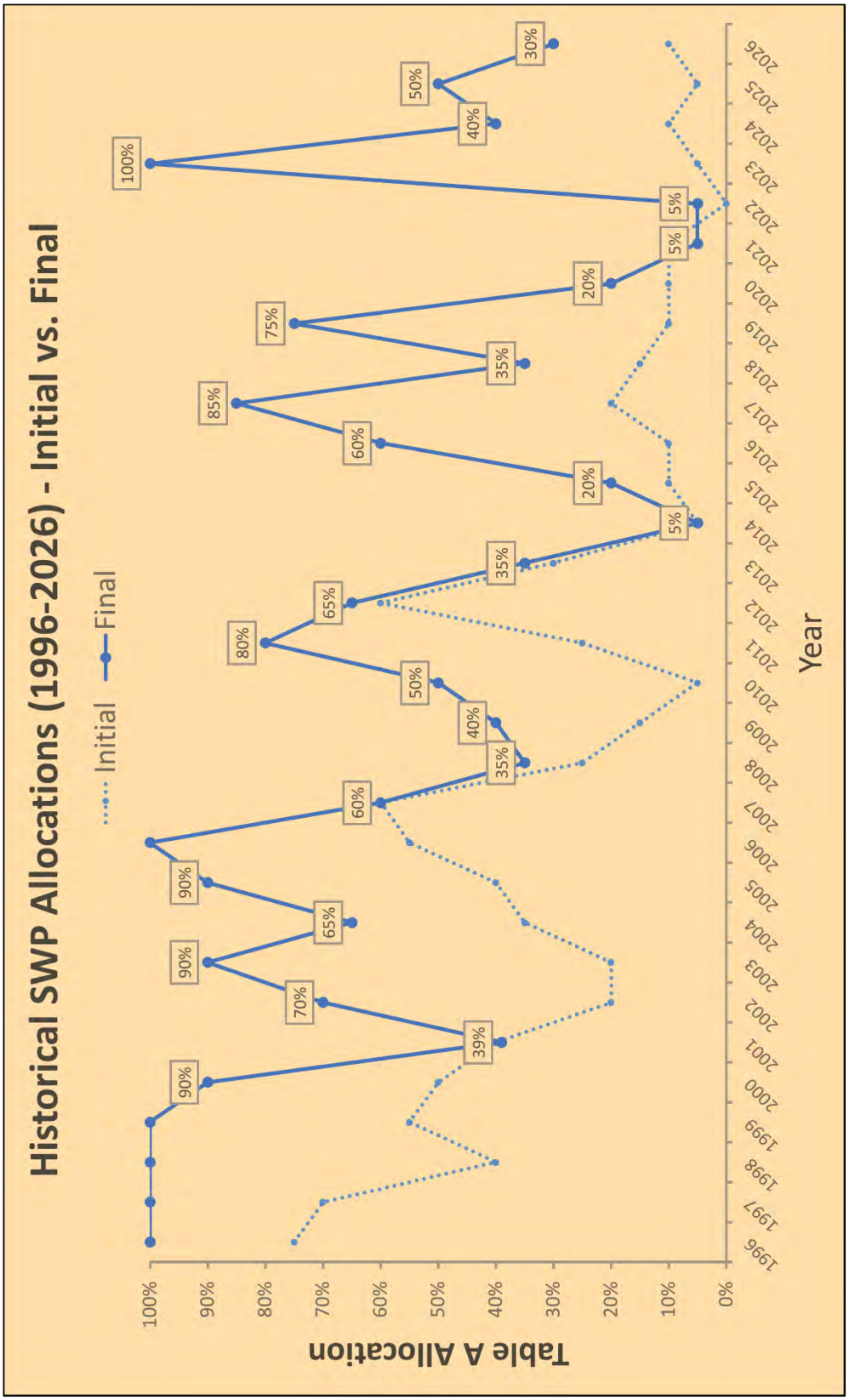

Figure 7.5 SWP Table A Deliveries

7.5. COLORADO RIVER RELIABILITY

Water supply from the Colorado River continues to be a critical issue for Southern California as many agencies compete for both SWP water and Colorado River water. The Lower Colorado River Basin has been suffering from its own drought (in addition to the droughts across California). The average annual flow of the Lower Colorado River is approximately 12.4 million acre-feet per year (MAFY) since 2000, with historical data showing an average of 14.6 MAFY. As of January 2025, Lake Powell had a storage volume of 8.67 MAF, which is about 37% of its capacity. In contrast, Lake Mead's storage was reported at 10.83 MAF, or 38% of its capacity.

Colorado River conditions have an indirect impact on the City since some SWP Contractors also have rights to the CRA (such as MWD and CVWD)

In February 2026, the Department of the Interior (DOI) is moving forward with the Post-2026 NEPA process to finalize operating guidelines for Colorado River reservoirs by Oct. 1, 2026. While the seven Colorado River Basin States have not reached full consensus on an operating framework, the DOI has indicated that they cannot delay action because meeting this deadline is essential to ensure certainty and stability for the Colorado River system beyond 2026.

7.5.1. Competition for Water Rights

For Colorado River rights holders, the "*Law of the River*" is essentially a compilation of numerous compacts, state and federal laws, court decisions and decrees, contracts, and regulatory guidelines which define rights to water from the Colorado River. These documents apportion the water and regulate the use and management of the Colorado River among the seven basin states and Mexico. A brief listing of these compacts and acts include:

- Colorado River Compact (1922)
- Boulder-Canyon Project Act (1928)
- CA Seven Party Agreement (1931)
- Arizona v. California (1964)
- CO River Basin Project Act (1968)
- Arizona v. California (1979)
- Quantification Settlement Agreement (2003)

Per the 2003 Quantification Settlement Agreement (QSA), California's allocation has been confirmed at 4.4 MAF per year, with MWD maintaining just over 1 MAF in rights. Likewise, the Coachella Valley Water District (LWD) holds rights to the CRA. As SWP contractors, MWD's and LWD's extractions from the CRA impact their annual requests for SWP Table A amounts.

Figure 7.6 The Palo Verde Diversion Dam on the Colorado River

7.6. DISTRICT SUPPLY RELIABILITY

As the District obtains its water sources from a combination of local groundwater and imported water, the supply reliability is based on the reliability of the Santee-El Monte Basin, the Colorado River, and the Sacramento-San Joaquin River Delta. The basin is considered to be a reliable source of supply since its current storage levels far exceed any planned pumping.

MWD is participating in the development of groundwater, groundwater recovery, recycled water systems, desalination opportunities, and collection of urban return flows to augment the reliability of the imported water system. There are various factors that may impact reliability of supplies, such as legal, environmental, water quality, and climatic, which are discussed below. The water supplies are projected to meet full-service demands; MWD's 2020 UWMP finds that MWD is able to meet with existing supplies full service demands of its member agencies in 2025 through 2045 during normal years, single dry year, and multiple dry years.

MWD's 2020 Integrated Water Resources Plan (IRP) update describes the core resource strategy used to meet full-service retail demands under all foreseeable hydrologic conditions from 2025 through

2045. The foundation of MWD's resource strategy for achieving regional water supply reliability consists of developing and implementing water resources programs and activities through its IRP preferred resource mix. This preferred resource mix includes conservation, local resources, such as water recycling and groundwater recovery, Colorado River supplies and transfers, SWP supplies and transfers, in-region surface reservoir storage, in-region groundwater storage, out-of-region banking, treatment, conveyance and infrastructure improvements. CWA is reliant on MWD for a portion of its imported water. With the addition of planned supplies under development, MWD's 2020 UWMP finds that MWD will be able to meet full-service demands from 2025 through 2045, even under a repeat of the worst drought. **Table 3.10** shows the reliability of the MWD's supply for single dry year and multiple dry year scenarios. MWD's single dry year is based on the drought in 1977. MWD's five-consecutive dry years is based on from 1988 to 1992, which represents as the driest five-consecutive year historic sequence for MWD's water supply. In addition to meeting full- service demands from 2025 through 2045, MWD projects reserve and replenishment supplies to refill system storage.

Table 3.10: MWD Supply Reliability Single & Multiple Dry Years

		Base Year	Percent Available
Average		1922 -	100%
Single Dry		1977	100%
Multiple Dry Years	**Year 1**	1988	100%
	Year	1989	100%
	Year	1990	100%
	Year	1991	100%
	Year	1992	100%

7.6.1. Reliability of Alternative Sources

Since recycled water is produced from wastewater, this source has the advantage of consistently being available during any type of average, single-dry, or multiple-dry year as discussed in **Section 3**. If the District were to use recycled water at some point in the future, it would genuinely add to the District's overall supply reliability, especially since about 5 percent of the District's water is used for landscape irrigation (i.e. lawns, parks, athletic fields, etc).

7.7. DROUGHT RISK ASSESSMENT

The quantity of supply available from different water supply sources can vary from one year to the next depending on hydrologic conditions. The drought risk assessment is an assessment of the reliability of the District's water supplies by comparing projected future water demands with expected available water supplies under three different hydrologic conditions: (1) normal water year, (2) single dry year, and (3) multiple dry years. For the sake of

this UWMP, the multiple dry-year period is taken to be five (5) years. Future supply and demand conditions can be determined from the following data:

- Population forecasts
- Water supply capacity
- Recent water use trends

The data described above has been provided in the previous sections of this UWMP, including **Section 3** (Water Sources & Supplies), and **Section 6** (Water Use). The projected comparisons in this Section are based on data from those previous sections.

7.7.1. Basis for Projected Demands

To project future demands, it will be assumed that total demand will change annually based on changes in population multiplied by the individual demand per-person (also known as the "per-capita" consumption rate -see **Section 6**). The per-capita rates used in the future projections will be based on actual water use data from the recent past. In particular, the District's averages for the last five (5) years will be used as the basis to project demands through the year 2050. To project demands and supplies, the following is assumed:

- Consumption rate of 90.2 gallons per capita per day (GPCD) as the average consumption of the District in the last 5 years.
- *Decreasing* consumption rate (from 90.2 GPCD) starting in 2026 with a passive savings of 0.5% annually. This brings the 2026 consumption rate to 89.7 GPCD.

Although a constant consumption rate provides a more conservative approach, the decreasing consumption rate scenario provides a realistic basis for planning purposes since it considers gradual improvements in water-use efficiency. In the past 5 years, the District has seen a 8.7% increase in water use efficiency. The District's GPCD in 2021 was 98.7 GPCD, and the District's consumption rate in 2025 was 90.2 GPCD. This amounts to an average decrease of about 2.17% annually.

For drought-time demands, it is expected that there will be a small degree of increase due to the lack of rainfall on landscapes. To project demands during single and multiple (five) year drought periods, the following increase factors will be assumed:

- Dry Year: 22%
- Multiple Dry Years: 8%, 12%, 16%, 20%, and 25%

During the recent drought of 2011 to 2017, water agencies in the State experienced an increase in water demands, until former Gov. Brown's Emergency Declaration in 2015. Nevertheless, the increase factors

listed above are reasonable for the purposes of demand projections since they provide reasonable estimates of increases in water use for irrigation during dry-years.

7.7.2. Basis for Projected Supplies

As for projected supplies, because the District's supplies are mostly drought-proof as stated previously in this Section, it is very unlikely that supplies will be restricted, even during multi-year periods. Thus, for conservative planning purposes, the District's projected water supplies available will be based off 75% of both its current active well capacity and allowable supply of imported/purchased water. With a current total supply capacity of roughly 8,355 gpm or 13,477 AFY (including 2 wells and Imported water from CWA), this equates to roughly 6,266 gpm or 10,107 AFY.

7.7.3. Tabular Comparisons

Tables **7.1** to **7.7**, shown on the following pages, provide an analysis of the District's supply and demand projections from 2026 through 2050. **Figures 7.9 to 7.11** show a visual pie-chart for the year 2050. Based on the data contained in these tables, the District can expect to meet future demands for all climate conditions through 2050.

Table 7.1 Lakeside Water District Water Supply Availability & Demand Projections – Normal Water Year (AF)

Water Sources	2030	2035	2040	2045	2050
Population					
Water Service Area Population	35,415	35,790	36,165	36,540	36,915
Consumption Rate (GPCD)[1] *Including 0.5% Annual Passive Savings*	88.0	85.8	83.7	81.6	79.6
Supply					
Groundwater Pumped (Total)	371	371	371	371	371
Recycled Water	0	0	0	0	0
Purchased Water[2]	3,119	3,068	3,018	2,969	2,920
Total Anticipated Use of Supplies[3] ***(Estimated Production)***	**3,490**	**3,439**	**3,389**	**3,340**	**3,291**
Minimum Available Supply[4]	10,107	10,107	10,107	10,107	10,107
Demand					
Estimated Potable Water Demand	**3,490**	**3,439**	**3,389**	**3,340**	**3,291**
Estimated Recycled Water Demand	0	0	0	0	0
Total Estimated Demand	**3,490**	**3,439**	**3,389**	**3,340**	**3,291**
Compare to Avg. Demand from 2021-2025 (3,402 AF)	103%	101%	100%	98%	97%
Supply/Demand Comparison					
Supply-Demand (Difference)	0	0	0	0	0
Supply/Demand (%)	100%	100%	100%	100%	100%
Available Supply Capacity[5]	6,618	6,668	6,718	6,768	6,817

Notes:

1. Total Demand and Total Supply = Consumption Rate x Projected Population
   a. Average consumption rate of last 5 years = 90.2 gallons per capita per day (GPCD)
   b. Estimated starting consumption rate in 2026 = 89.7 GPCD
   c. Approximate "passive" savings: 0.5% per year
   d. Projected "passive" savings: 0.5% per year = 79.6 gpcd by 2050
2. Projected purchased water equals the difference in projected water consumption (demands) and projected groundwater pumped.
3. Total Anticipated Use of Supplies equals the projected water consumption (demands) shown in **Table 6.7** of **Section 6**.
4. Minimum available supply represents 75% of both the District's current active well capacity and allowable supply of imported/purchased water:
   a. Wells in local area: Vine Street Well Field's 2 wells (230 gpm or 317 AFY)
   b. Imported water through the CWA 12" metered connection (11.7 mgd or 13,106 AFY maximum connection
5. No other potable supply sources are expected to become available.

Table 7.2 Lakeside Water District Water Supply Availability & Demand Projections – Single Dry Year (AF)

Water Sources	2030	2035	2040	2045	2050
Population					
Water Service Area Population	35,415	35,790	36,165	36,540	36,915
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	88.0	85.8	83.7	81.6	79.6
Supply					
Groundwater Pumped (Total)	371	371	371	371	371
Recycled Water	0	0	0	0	0
Purchased Water[2]	3,886	3,825	3,764	3,703	3,643
Total Anticipated Use of Supplies[3] ***(Estimated Production)***	**4,257**	**4,196**	**4,135**	**4,074**	**4,014**
Minimum Available Supply[4]	10,107	10,107	10,107	10,107	10,107
Normal Year Supply	3,490	3,439	3,389	3,340	3,291
% of Normal Year	122%	122%	122%	122%	122%
Demand					
Total Dry Demand[1]	**4,257**	**4,196**	**4,135**	**4,074**	**4,014**
Normal Year Demand	3,490	3,439	3,389	3,340	3,291
% of Normal Year	122%	122%	122%	122%	122%
Supply/Demand Comparison					
Supply-Demand (Difference)	0	0	0	0	0
Supply/Demand (%)	100%	100%	100%	100%	100%
Available Supply Capacity[5]	5,850	5,911	5,972	6,033	6,093

Notes:

1. Dry Demand = Normal Year Demands x Single Dry Year Increase of 122%.

2. All other items determined in similitude to **Table 7.1**..

Table 7.3 Lakeside Water District Water Supply Availability & Demand Projections – Multiple Dry Years (2026-2030) (AF)

Water Sources	2026	2027	2028	2029	2030
Population					
Water Service Area Population	35,115	35,190	35,265	35,340	35,415
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	89.7	89.3	88.9	88.4	88.0
Supply					
Groundwater Pumped (Total)	371	371	371	371	371
Recycled Water	0	0	0	0	0
Purchased Water[2]	3,442	3,571	3,701	3,829	3,991
Total Anticipated Use of Supplies[3] ***(Estimated Production)***	**3,813**	**3,942**	**4,071**	**4,200**	**4,362**
Minimum Available Supply[4]	10,107	10,107	10,107	10,107	10,107
Normal Year Supply	3,530	3,520	3,510	3,500	3,490
% of Normal Year	108%	112%	116%	120%	125%
Demand					
Total Dry Demand[1]	**3,813**	**3,942**	**4,071**	**4,200**	**4,362**
Normal Year Demand	3,530	3,520	3,510	3,500	3,490
% of Normal Year	108%	112%	116%	120%	125%
Supply/Demand Comparison					
Supply-Demand (Difference)	0	0	0	0	0
Supply/Demand (%)	100%	100%	100%	100%	100%
Available Supply Capacity[5]	6,295	6,165	6,036	5,908	5,745

Notes:

1. Dry Demand = Normal Year Demands x Multiple Dry Year Increases of 108%, 112%, 116%, 120%, and 125%.

2. All other items determined in similitude to **Table 7.1**.

Table 7.4 Lakeside Water District Water Supply Availability & Demand Projections – Multiple Dry Years (2031-2035) (AF)

Water Sources	2031	2032	2033	2034	2035
Population					
Water Service Area Population	35,490	35,565	35,640	35,715	35,790
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	87.5	87.1	86.7	86.2	85.8
Supply					
Groundwater Pumped (Total)	371	371	371	371	371
Recycled Water	0	0	0	0	0
Purchased Water[2]	3,387	3,515	3,642	3,768	3,928
Total Anticipated Use of Supplies[3] ***(Estimated Production)***	**3,758**	**3,886**	**4,013**	**4,139**	**4,299**
Minimum Available Supply[4]	10,107	10,107	10,107	10,107	10,107
Normal Year Supply	3,480	3,470	3,459	3,449	3,439
% of Normal Year	108%	112%	116%	120%	125%
Demand					
Total Dry Demand[1]	**3,758**	**3,886**	**4,013**	**4,139**	**4,299**
Normal Year Demand	3,480	3,470	3,459	3,449	3,439
% of Normal Year	108%	112%	116%	120%	125%
Supply/Demand Comparison					
Supply-Demand (Difference)	0	0	0	0	0
Supply/Demand (%)	100%	100%	100%	100%	100%
Available Supply Capacity[5]	6,350	6,222	6,095	5,968	5,808

Notes:

1. Dry Demand = Normal Year Demands x Multiple Dry Year Increases of 108%, 112%, 116%, 120%, and 125%.

2. All other items determined in similitude to **Table 7.1**.

Table 7.5 Lakeside Water District Water Supply Availability & Demand Projections – Multiple Dry Years (2036-2040) (AF)

Water Sources	2036	2037	2038	2039	2040
Population					
Water Service Area Population	35,865	35,940	36,015	36,090	36,165
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	85.4	84.9	84.5	84.1	83.7
Supply					
Groundwater Pumped (Total)	371	371	371	371	371
Recycled Water	0	0	0	0	0
Purchased Water[2]	3,333	3,459	3,584	3,708	3,866
Total Anticipated Use of Supplies[3] ***(Estimated Production)***	**3,704**	**3,830**	**3,955**	**4,079**	**4,237**
Minimum Available Supply[4]	10,107	10,107	10,107	10,107	10,107
Normal Year Supply	3,429	3,419	3,409	3,399	3,389
% of Normal Year	108%	112%	116%	120%	125%
Demand					
Total Dry Demand[1]	**3,704**	**3,830**	**3,955**	**4,079**	**4,237**
Normal Year Demand	3,429	3,419	3,409	3,399	3,389
% of Normal Year	108%	112%	116%	120%	125%
Supply/Demand Comparison					
Supply-Demand (Difference)	0	0	0	0	0
Supply/Demand (%)	100%	100%	100%	100%	100%
Available Supply Capacity[5]	6,404	6,278	6,153	6,028	5,871

Notes:

1. Dry Demand = Normal Year Demands x Multiple Dry Year Increases of 108%, 112%, 116%, 120%, and 125%.

2. All other items determined in similitude to **Table 7.1**.

Table 7.6 Lakeside Water District Water Supply Availability & Demand Projections – Multiple Dry Years (2041-2045) (AF)

Water Sources	2041	2042	2043	2044	2045
Population					
Water Service Area Population	36,240	36,315	36,390	36,465	36,540
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	83.2	82.8	82.4	82.0	81.6
Supply					
Groundwater Pumped (Total)	371	371	371	371	371
Recycled Water	0	0	0	0	0
Purchased Water[2]	3,279	3,403	3,526	3,649	3,804
Total Anticipated Use of Supplies[3] ***(Estimated Production)***	**3,650**	**3,774**	**3,897**	**4,020**	**4,175**
Minimum Available Supply[4]	10,107	10,107	10,107	10,107	10,107
Normal Year Supply	3,379	3,369	3,360	3,350	3,340
% of Normal Year	108%	112%	116%	120%	125%
Demand					
Total Dry Demand[1]	**3,650**	**3,774**	**3,897**	**4,020**	**4,175**
Normal Year Demand	3,379	3,369	3,360	3,350	3,340
% of Normal Year	108%	112%	116%	120%	125%
Supply/Demand Comparison					
Supply-Demand (Difference)	0	0	0	0	0
Supply/Demand (%)	100%	100%	100%	100%	100%
Available Supply Capacity[5]	6,458	6,334	6,210	6,088	5,933

Notes:

1. Dry Demand = Normal Year Demands x Multiple Dry Year Increases of 108%, 112%, 116%, 120%, and 125%.

2. All other items determined in similitude to **Table 7.1**.

Table 7.7 Lakeside Water District Water Supply Availability & Demand Projections – Multiple Dry Years (2046-2050) (AF)

Water Sources	2046	2047	2048	2049	2050
Population					
Water Service Area Population	36,615	36,690	36,765	36,840	36,915
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	81.2	80.8	80.4	80.0	79.6
Supply					
Groundwater Pumped (Total)	371	371	371	371	371
Recycled Water	0	0	0	0	0
Purchased Water[2]	3,225	3,347	3,469	3,589	3,742
Total Anticipated Use of Supplies[3] ***(Estimated Production)***	**3,596**	**3,718**	**3,840**	**3,960**	**4,113**
Minimum Available Supply[4]	10,107	10,107	10,107	10,107	10,107
Normal Year Supply	3,330	3,320	3,310	3,300	3,291
% of Normal Year	108%	112%	116%	120%	125%
Demand					
Total Dry Demand[1]	**3,596**	**3,718**	**3,840**	**3,960**	**4,113**
Normal Year Demand	3,330	3,320	3,310	3,300	3,291
% of Normal Year	108%	112%	116%	120%	125%
Supply/Demand Comparison					
Supply-Demand (Difference)	0	0	0	0	0
Supply/Demand (%)	100%	100%	100%	100%	100%
Available Supply Capacity[5]	6,511	6,389	6,268	6,147	5,994

Notes:

1. Dry Demand = Normal Year Demands x Multiple Dry Year Increases of 108%, 112%, 116%, 120%, and 125%.

2. All other items determined in similitude to **Table 7.1**.

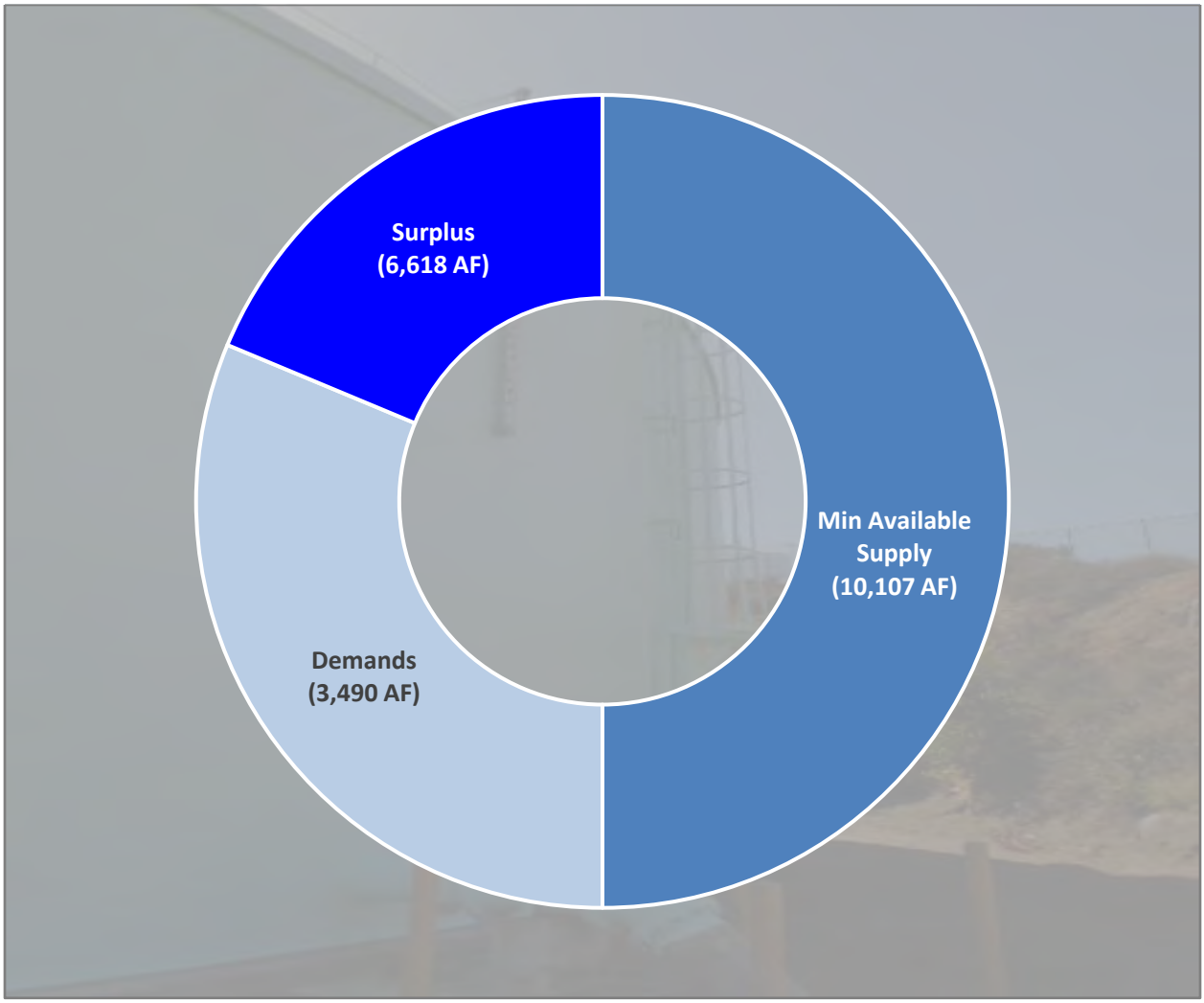

Figure 7.7 Projected Normal Water Supply: Year 2030

Notes:

1. See Notes Under **Table 7.1**.
2. Surplus = Minimum Available Supply – Total Demand

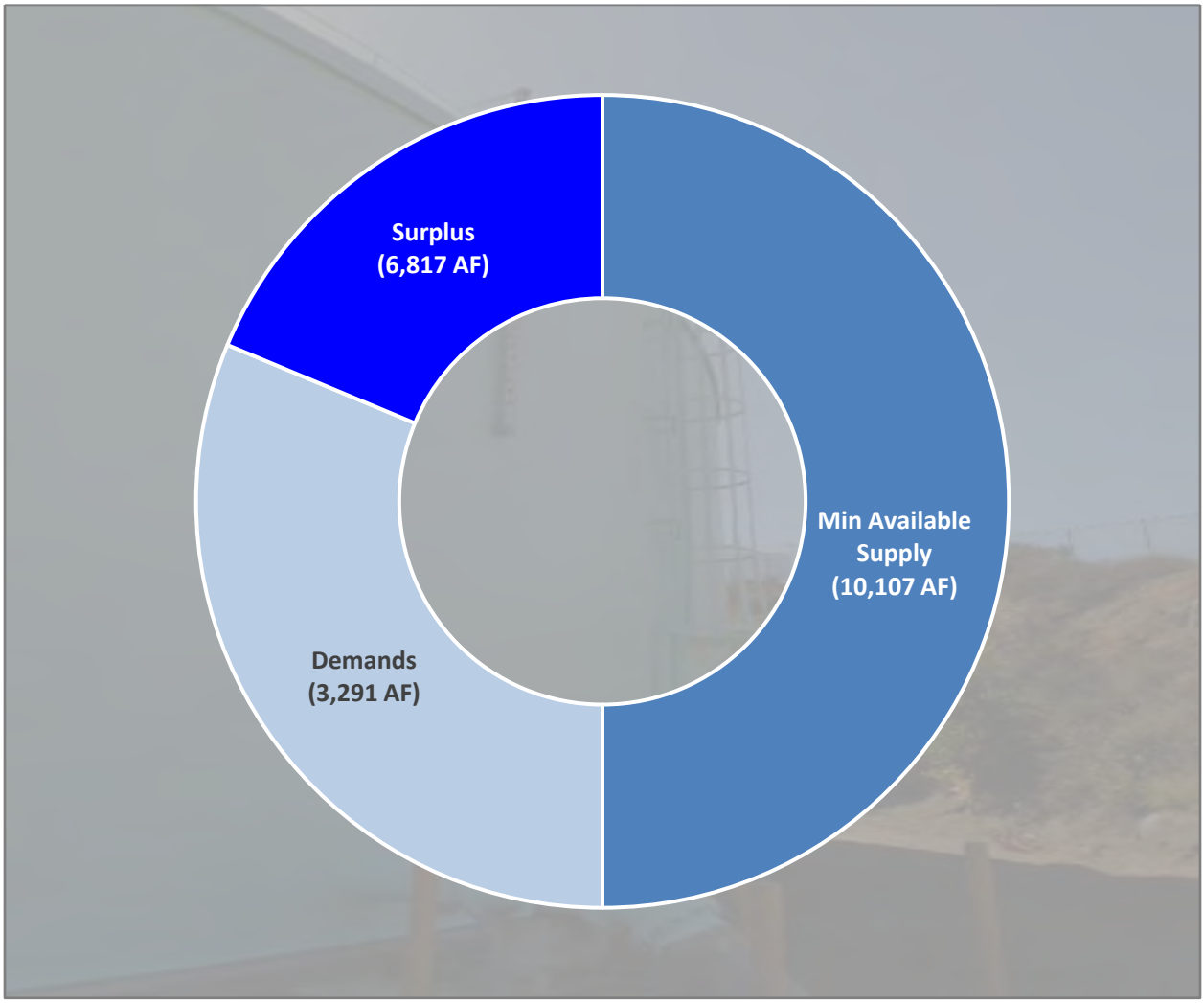

Figure 7.8 Projected Normal Water Supply: Year 2050

Notes:

1. See Notes Under **Table 7.1**.
2. Surplus = Minimum Available Supply – Total Demand

7.8. ENSURING ADEQUATE SUPPLY

As indicated by **Tables 7.1** to **7.7** and **Figures 7.9** to **7.11**, the District will be able to meet demands from 2026 through 2050 for all future climatic conditions. If supplies need to be increased in the future, this can most likely be accomplished through expansion of the District's Water Treatment Plant to accommodate additional wells, through the drilling of new wells, or through purchasing of recycled water. Besides expanding water supplies, there is also the measure of demand management (water conservation), which has more immediate impacts and helps demands to be met using the supplies that are already at hand.

Finally, droughts will be addressed by following the criteria of the District's Water Shortage Contingency Plan (WSCP) along with implementation of the regional contingency plans. These programs are discussed in **Section 8**. For these reasons, the District is confident that an adequate amount of supply can be provided to meet demands for all weather conditions through 2050.

7.9. WSCP SUPPLY AUGMENTATION

Although the District does not expect to have a water supply shortage through 2050, as indicated by **Tables 7.1** to **7.7**, severe and extent droughts may cause the WSCP to be enacted. The District will rely on the implementation of the WSCP to augment the District's reduced supply during consecutively dry years. The WSCP supply augmentation benefits during a five-year drought are shown in standard DWR Table 7-5 in **Appendix E.**

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Section 8: Contingency Planning

Diesel-powered pumps can provide emergency water supplies during sudden catastrophes.

8.1. CHAPTER SUMMARY

The District has included this summary of Chapter 8 in accordance with CWC Section 10630.5. The CWC mandates that water agencies include in their UWMPs a water shortage contingency plan (WSCP). A WSCP, which is a detailed proposal for how an urban water supplier intends to act in the case of an actual water shortage condition, exists as a stand-alone document and can be amended, as needed, without amending the UWMP. A water shortage may occur due to a number of reasons, such as drought, climate change, or catastrophic events. A water shortage means that there are insufficient water supplies to meet the District's normal customer water use demands at a given point in time. The District has developed this WSCP to serve as an operating manual to prevent catastrophic service interruptions through proactive, rather than reactive management. If and when shortage conditions arise, the WSCP allows the District's board, staff, and the public to identify and efficiently implement predetermined steps to manage a water shortage. The District's WSCP includes and addresses the following elements:

1) Water supply reliability assessment
2) Annual water supply and demand assessment procedures
3) Six standard water shortage stages
4) Shortage response actions
5) Communication protocols
6) Compliance and enforcement
7) Legal authorities

8) Financial consequences of the WSCP
9) Monitoring and reporting
10) WSCP refinement procedures
11) Special water feature distinction
12) Plan adoption, submittal, and availability

The WSCP is intended to be consistent with the District's UWMP and CWA's UWMP and is further intended to implement CWA's WSCP. CWA's WSCP is a response program developed by CWA in consultation with its member agencies for responding to water supply limitations resulting from drought conditions. The response levels included in the District's WSCP correspond with CWA's WSCP.

8.2. WATER SUPPLY RELIABILITY ANALYSIS

The District is located in a region with limited local water supplies. Since 1948, the District has relied on imported water as its primary water supply source, and it maximizes the use of available local supplies to supplement imported supplies.

As discussed in Chapter 7 of the District's 2025 UWMP, historically, water from CWA has accounted for the majority of the District's water supplies and has accounted for 90% of the District's water supply on average. Imported water is purchased from CWA, the water wholesaler for the San Diego region. The imported supplies from CWA are a mix of sources including water from the Delta and Colorado River. Looking forward, imported water is estimated to account for 3,200 to 3,500 AF of the district's annual water supplies over the next 20 years. Due to constraints on the Delta and Colorado River supplies, CWA has developed a mix of projects to diversify the imported water supply portfolio to increase reliability and reduce dependence solely on the Delta and Colorado River. Projects completed by CWA to increase reliability of supply for the region and the District include the Imperial Irrigation Conservation and Transfer Agreement, All American Canal and Coachella Canal Relining projects, San Vicente Dam Raise and Carryover Storage project, and the Carlsbad Desalination project. Additional details on CWA's water supply reliability are discussed in Chapter 9 of CWA's UWMP and are incorporated by reference herein.

Local ground water accounts for 20% of the District's supplies on average. The district estimates that groundwater will provide approximately 360 AF annually of the district's water supplies over the next 20 years. Groundwater, which is sourced from the El Monte Valley Basin within the San Diego River Valley Basin, is pumped from our well field located at the administrative headquarters. In fiscal year 2025, the well produced 358 AF.

Every five years, the District updates its

Urban Water Management Plan, which includes projecting supplies over the next 25 years, in five-year increments, for a normal water year, a single dry year, and a drought lasting five consecutive years. CWA notes that certain of its supplies, which consist of the Imperial Irrigation District water transfer, All-American Canal and Coachella Canal lining projects, and regional seawater desalination, no reduction in the availability over the five-year drought period is assumed due to the drought resilience of those supplies.

Given the development of CWA's and the District's supplies as planned and the achievement of conservation targets, as quantified in the District's Urban Water Management Plan, the District anticipates having sufficient supplies to meet demand during future normal water years, single dry years, and for a drought lasting five consecutive years.

However, low probability, high impact events can result in sudden, unanticipated loss of water supply on a catastrophic scale. These threats can be naturally occurring, such as earthquakes, wildfires or lightning that could result in dependency hazards such as loss of utility power that in turn could affect the conveyance of imported water or the functionality of the District's treatment plant. These threats can also be malevolent, such as various forms of acts of terrorism. CWA, as the regional wholesaler, has created an Integrated Contingency Plan (ICP) in conjunction with its member agencies to address catastrophic events that could eliminate access to imported water supplies. CWA's ICP identifies potential emergency situations and incidents that could trigger activation of CWA's ICP and Emergency Operations Centers, along with the policies, procedures, multi-agency coordination, mutual aid agreements and activation/deactivation guidelines associated with emergency response activities.

CWA has also created the Emergency Storage Project which is a system of reservoirs, pipelines, pump stations and other conveyance facilities (See Section 8.2 of CWA's 2025 Water Shortage Contingency Plan) intended to improve San Diego County's regional water storage capacity and allow stored emergency water to be delivered to CWA's member agencies within San Diego County during a prolonged regional interruption. The ESP facilities can be used to help deliver emergency water supply to member agencies during two- and six-month emergency events in which the region is either completely unable or partially able to receive imported water deliveries due to a disaster that renders their transmission system inoperable. CWA also has Emergency Water Delivery Plans, which identify emergency water supply deliveries

to its member agencies during two- and six-month emergency events through CWA Quantification Settlement Agreement transfers, spot transfers, out-of-region storage supplies, and MWD supplies.

8.3. ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

Water Code Section 10632(a)(2) requires urban water suppliers to conduct an annual water supply and demand assessment and submit an Annual Assessment Report to the state beginning July 1, 2022.

The information below provides an overview of the District's process to annually assess projected water supplies and customer demands. The assessment is used to determine if there will be a shortfall in District supplies for the current year and one dry year. If the assessment identifies a shortfall in District supplies, it would trigger the District's shortage response actions as outlined in the District's WSCP.

8.3.1. Decision Making Process

This section summarizes the decision-making process that the District will use each year to determine, and subsequently report to the state, its annual water supply and demand assessment:

Table 8-A: Decision Making Process For Annual Water Supply And Demand Assessment Procedures

Timeframe (No Later Than)	Action	Responsible District Department
May 1	Authority announces member agency allocation determination for current year, if applicable	Authority provides to Systems, if applicable
May 1	Authority determines carryover (and emergency storage apportionments if under emergency), if applicable	Authority provides to Systems, if applicable
May 1	District determines District local supply available	Systems
May 1	District determines total supply available – inclusive of local and imported supplies	Systems

May 1	District determines infrastructure constraints	Systems
May 1	District determines expected demands	Finance
May 1	District compares supply and demand and makes a determination of the water supply reliability for the current and one dry year	Water Conservation
June 15	District prepares and submits Annual Assessment Report to the state in coordination with CWA	Water Conservation
July 1, if applicable	District implements its water shortage response actions as outlined in this WSCP, if there is a gap between available water supplies and projected demand	Water Conservation makes recommendation to General Manager and/or Board as outlined in WSCP, if applicable

8.3.2. Data and Methodologies

The District will evaluate current year available supply and one dry year available supply in its annual assessment. The District's systems department will conduct the water supply evaluation annually by May 1 and by assessing the following hydrological conditions:

8.3.3. Local Sources

- Local stored water – Determine storage in each reservoir available for transfer.
- Wells – Determine last year's production and potential production constraints.

8.3.4. Imported Sources

Imported water – Allocation determined by CWA, including available CWA carryover and CWA emergency storage, based on local and statewide hydrological conditions and contractual availability, if applicable CWA's supply allocation methodology, developed in collaboration with CWA and its member agencies, is detailed in CWA's WSCP. Since the District relies primarily on imported water, continued coordination with CWA is crucial in determining the District's available water supply.

Our wholesale water supplier, the San Diego County Water Authority, has access to additional supplies through its Carryover

Storage Program, which includes in-region surface storage of approximately 40,000 acre-feet at San Vicente Reservoir. The Water Authority's policy is to limit use of that water to one-fifth of the total per year, if needed. The Water Authority also has access to additional supplies from the Metropolitan Water District of Southern California via its preferential right to purchase water. Under a dry-year scenario, that volume of water is assumed to be at least 300,000 acre-feet per ye

8.3.5. Infrastructure Considerations

The District's systems department will also consider the District's existing infrastructure capabilities and potential constraints for the upcoming fiscal year and one dry year. The District's existing water supply infrastructure is documented in the District's geographical information system, including its treatment plant, storage tanks, pump stations, pipelines, and valves. Constraints that could potentially limit water supply availability include shutdowns due to maintenance, construction impacts, and water quality impacts. The District will also coordinate with CWA to identify regional infrastructure constraints to determine if, and how, they would impact District water supply availability. Once constraints have been identified, the District will determine if the total water supply identified as available under local and imported sources should be adjusted.

8.3.6. Projected Water Demand

The annual assessment will use the District's latest demand forecast. The demand forecast is completed by the District's finance department by May 1 each year. Key inputs include, but are not limited to, the District's unconstrained demand, recent water demand trends, pending water use efficiency regulations, mandatory water use restrictions, weather, and population and economic growth.

8.3.7. Water Supply Reliability Annual Assessment Report

The CWA's systems and finance departments will provide projected water supply and demand data to the water conservation department by May 1. CWA's water conservation department will compare supply and demand and make a determination of the water supply reliability for the current and one dry year by June 1. The District will complete and submit the District's Annual Assessment Report, and will coordinate with CWA as appropriate. The report will be submitted to the state within 14 days of receiving final allocation from the State Water Project or by July 1.

8.3.8. Gap Between Available Water Supplies and Projected Water Demand

If there is a gap between available water supply and projected water demand, the District's water conservation department will recommend implementation of the

District's water shortage response actions as outlined in this WSCP, or reasonable alternative action, provided that descriptions of the alternative actions are submitted with the Annual Assessment Report pursuant to Water Code 10632.1.

8.4. SIX STANDARD WATER SHORTAGE LEVELS

The District has established six levels of water shortages, outlined in this WSCP and in coordination with CWA, to be implemented in times of shortage, with increasing restrictions on water use in response to decreasing available supplies due to drought or emergency events. See Submittal Table 8-1 below. To determine the appropriate level, the District will assess the water supply and demand per the procedures outlined in Section 8.3.

Submittal Table 8-1
Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions (*Narrative description*)
1	Up to 10%	Communicates supply shortage with customers and promotes voluntary water conservation measures including recommended watering schedules and ways to reduce water waste.
2	Up to 20%	Increases conservation communications. Begins the enforcement of mandatory water use prohibitions and places limits on watering days and times.
3	Up to 30%	Increases water use efficiency and conservation communication. Deploys more restrictive water use prohibitions and gives District opportunity to issue water allocations and/or ban new connections.
4	Up to 40%	Makes more restrictive water use prohibitions. Focuses communication on extraordinary need for conservation. Expands resources for customers to help avoid damage from extreme conservation.
5	Up to 50%	Stops all landscape irrigation except for specific reasons. Bans all new connections unless project meets stringent criteria. Focuses communication and messaging to handle imminent needs.
6	>50%	Limits exemptions for watering days. Communicates the need for all businesses and residents to work together to help weather the situation.

8.5. SHORTAGE RESPONSE ACTIONS

Although the District has ongoing demand reduction measures in place, the District has identified three additional potential supply mitigation tools that can be utilized in response to water shortages:

1) Communication plan
2) Mandatory water use prohibitions
3) Operational changes

As noted in Table 8-B, below, the Shortage Response Matrix includes a list of potential shortage response actions available to the District at each of the six standard water shortage levels. To determine the locally appropriate actions that should be taken at each level, the District will evaluate conditions specific to the timing, supply availability, supply reduction levels, costs, and other variables. Depending on the situation, the District may not implement each of the identified actions in a response level but select only those that are most appropriate.

Table 8-B: Shortage Response Matrix

Water Shortage Level	Use Restrictions	Ongoing Water Use Efficiency	Communication Plan	Mandatory Water use Prohibitions	Operational Changes
Normal Conditions		X			
Level 1: Up to 10% (Voluntary)	Voluntary	X	X		
Level 2: Up to 20% (Mandatory)	Mandatory	X	X	X	X
Level 3: Up to 30% (Mandatory)	Mandatory	X	X	X	X
Level 4: Up to 40% (Mandatory)	Mandatory	X	X	X	X
Level 5: Up to 50% (Mandatory)	Mandatory	X	X	X	X
Level 6: Above 50% (Mandatory)	Mandatory	X	X	X	X

8.5.1. Demand Reduction

The District has adopted policies and procedures manual Section 10.1, which is also known as the Water Shortage Response Policy and Procedure and has been provided by the District in **Appendix N**. This policy and procedure establishes both permanent water use efficiency measures and additional demand reduction measures to

be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes six levels of water shortage response actions to be implemented in times of shortage, with increasing restrictions on water use in response to worsening drought conditions and/or decreasing available supplies. The demand reduction measures correspond to the District's six water shortage levels and CWA's WSCP, as noted in Table 8-2:

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
1	Expand Public Information Campaign	5%		No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	2%		No
1	Other - Require automatic shut of hoses	1%		No
1	Other - Prohibit use of potable water for washing hard surfaces	1%		No
2	Expand Public Information Campaign	5%		No
2	Landscape - Limit landscape irrigation to specific times	1%		Yes
2	Landscape - Limit landscape irrigation to specific days	2%	3 days/wk	Yes
2	Water Features - Restrict water use for decorative water features, such as fountains	1%		Yes
2	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	5 days	Yes
3	Expand Public Information Campaign	5%		No
3	Landscape - Limit landscape irrigation to specific days	1%	2 days/wk	Yes
3	Implement or Modify Drought Rate Structure or Surcharge	5%		Yes
3	Moratorium or Net Zero Demand Increase on New Connections	1%		No
3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	3 days	Yes
4	Expand Public Information Campaign	5%		No
4	Landscape - Prohibit certain types of landscape irrigation	1%		Yes
4	Implement or Modify Drought Rate Structure or Surcharge	5%		Yes
4	Increase Water Waste Patrols	1%		Yes
4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	2 days	No
5	Expand Public Information Campaign	5%		No
5	Landscape - Prohibit all landscape irrigation	1%		Yes
5	Implement or Modify Drought Rate Structure or Surcharge	5%		Yes
5	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	1 day	Yes
5	Implement or Modify Drought Rate Structure or Surcharge	1%		No
6	Expand Public Information Campaign	3%		No
6	Landscape - Prohibit all landscape irrigation	5%		Yes
6	Implement or Modify Drought Rate Structure or Surcharge	5%		Yes
6	Increase Water Waste Patrols	2%		Yes

NOTES: In each progressing level restrictions are cumulative.

8.5.2. Permanent Water Use Efficiency Measures

At all times, the following practices shall be in effect:

1. No outdoor watering during a rain event or within 48 hours after measurable rainfall.
2. No watering down a sidewalk with a hose instead of using a broom or a brush except to alleviate safety or sanitary conditions.
3. No washing of automobiles with hoses not equipped with a shut-off nozzle.
4. No overwatering a landscape in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures.
5. Homeowners associations (HOAs) and local governments may not penalize homeowners for certain outdoor conservation practices during a declared shortage.
6. No use of a non-recirculated potable water in fountain or other decorative water feature.
7. No serving of drinking water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served and/or purchased
8. No irrigation with potable water of ornamental turf on public street medians
9. No irrigation with potable water of landscapes outside of newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission and The Department of Housing and Community Development.

Level 1 through 6 Water Shortage Contingency Plan details are in **Appendix N** as updated from the Drought Response Plan in 2020.

8.5.3. Supply Augmentation

The District purchases the majority of its water from CWA, the regional water wholesaler for the San Diego region. As previously described, the District is dependent on both the CWA and the Helix Water District facilities to supply its potable water needs. CWA and its 24-member agencies, including the District, have worked collaboratively over the past two decades to diversify water supplies and develop robust water supply shortage plans. If CWA identifies a water supply shortfall, it evaluates the use of stored water reserves from CWA's Carryover Storage or pursues supply augmentation measures, such as dry-year transfers, to reduce or eliminate the shortfall. Details on CWA's supply augmentation plan are available in CWA's WSCP, referenced and incorporated herein as **Appendix O**. These supply augmentations

occur before the district purchases water from CWA.

At a local level, the District maintains imported treated water and local groundwater. In the event that the treated water supply was interrupted, the District would have to rely on the operational storage contained in its 10 potable water reservoirs. The wells can currently supply less than one-fifth of the normal day demands. If the District were to have supplies reduced by 50 percent for a lengthy duration, as might result from a severe drought, compensatory reductions in potable water consumption would need to occur. Therefore, a 50 percent reduction in the District's supply would be matched by a 50 percent reduction in consumption throughout the District. A Level 5 would go into effect (**Appendix N**) and Tier 3 and Tier 4 pricing levels would also go into effect for high water usage customers.

The current combined total potable emergency water storage of 12.6 MG available in District reservoirs can provide approximately five days use under existing maximum day demand. With a 50 percent reduction in customer maximum day demand and outdoor use banned this reserve could last for 10 days. Additionally, the district maintains another 5 days of emergency storage or 11.73 MG in Padre Dams's wholesale storage system. Combined storage could last up to 20 days with 50% conservation level. The district would consider using this emergency storage in shortage Levels 5 and above. The exact amount of emergency storage available, and how long it would last, depends on projected demands and the water shortage level.

8.5.4. Operational Changes

When faced with a potential water shortage, the District will consider the following operational changes, as appropriate, to help address the shortage on a short-term basis:

- Evaluate customer water monthly using bimonthly billing data which is available on a rolling basis
- Increase customer communications
- Reduce water budget allocations for irrigation accounts
- Implement customer water shortage penalties
- Begin water patrols and enforcement
- Expedite system repairs and prioritize maintenance projects to reduce water loss
- Defer routine maintenance projects that involve extensive flushing/draining

8.5.5. Additional Mandator Restrictions

The District's mandatory restrictions, which include limitations on outdoor watering and restrictions on using water for certain functions, are outlined in the District's Water

Shortage Levels 2 through 6 (**Appendix N)**. These will be flexibly deployed as locally appropriate to each unique water shortage situation.

8.5.6. Emergency Response Plan

The District maintains an Emergency Response Plan that establishes policies, procedures, and organizational structure for responses to major emergencies such as natural disasters, power outages, and water supply disruptions. The plan establishes emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts that utilize the Standard Emergency Management System (SEMS), as described by Government Code 8607(a) for managing the response to emergencies in California. It also incorporates the elements of the National Incident Command System (NIMS) which is a nationwide standardized approach to incident management and response. The EOP meets state and federal emergency response and recovery requirements.

The District is a member of the East County Shared Service Network of water agencies that supports and promotes statewide emergency preparedness, disaster response and mutual assistance between agencies

Supply interruption is possible by several means, including but not limited to, natural disasters such as earthquakes and local or regional power interruptions. The District maintains several water supplies that include water emergency interconnections with agencies that border the District. The District also maintains a fleet of stationary and mobile power generators capable of operating District facilities in the event of local or regional power outages. Additionally, the District maintains an inventory of critical system supplies including piping and valves for use in system repairs.

The plan addresses assessment and utilization of all water supply sources, stationary and mobile power generators, and critical inventory as required to meet the emergency at hand in order to maintain system supply during emergency interruptions.

8.5.7. Seismic Risk Assessment and Mitigation Plan

In 2019, Helix Water District our wholesale imported water connection, commissioned Jacobs Engineering Group Inc. (Jacobs) to conduct a Risk and Resilience Assessment (RRA) in accordance with the relevant requirements of the America's Water Infrastructure Act of 2018 (AWIA), Section 2013. This RRA addresses the following key goals and objectives:

- Identifying and evaluating risks for

the Helix water system by employing an all-hazards approach to include evaluation of natural hazard, dependency, and proximity threats in addition to malevolent threats.

- Conducting an RRA applying the current industry-standard methodology.
- Developing cost-effective risk-reduction recommendations to address the risks identified in accordance with industry best practices.

To meet these needs, the RRA team used the American Water Works Association's (AWWA's) methodology entitled J100-10 Standard for Risk and Resilience Management of Water and Wastewater Systems, which is the current water and wastewater industry standard for RRAs. See Helix Water District's UWMP for more information. The RRA contains seismic risk analysis and mitigation recommendations. Accordingly, the District relies on it and incorporates herein its RRA for its seismic risk assessment and mitigation plan. In general, the estimated annual likelihood of a mission-defeating seismic event on the District's systems is estimated to be very low, on the order of 2% per year or less.

8.6. COMMUNICATION PROTOCOLS

The District's communication protocols include the various channels the District will utilize to convey critical messages regarding voluntary and mandatory water shortage actions and allocations, if applicable.

Public outreach programs can help increase awareness of water shortages, while customer classes and workshops can encourage ratepayers to actively participate in demand reducing strategies. A strong communication plan will help educate District customers, including local leaders and the business community, on the water supply situation; what actions are proposed; what the intended achievements are; and how these actions are to be implemented.

While specific types of messaging are deployed at various shortage response levels, how these messages can be conveyed to the public are described here. The communication protocols can be initiated upon declaration of a water shortage Level 1. Utilization of the communication protocols will continue through all subsequent water shortage levels. At times, specific communities may require specialized outreach. The District will ensure outreach efforts are reaching key audiences.

The District will communicate to ratepayers the following when urgent conservation is needed:

- Specific actions needed to save water;
- How much water needs to be saved and for how long;
- Why water needs to be saved; and
- What the district is doing to correct

the supply problem or address the situation.

8.6.1. Regional Coordination

In order to communicate effectively, avoid confusion and maintain credibility, the District will work in close coordination with CWA at various organizational levels. These levels include the Joint Public Information Council/Conservation Coordinators (JPIC; staff level), the Member Agency Managers group (management level), and CWA Board's Legislation and Public Outreach Committee (Board level). During droughts or other times of limited supply, the frequency and extent of coordination will increase to ensure outreach tactics are consistent with the changing needs of the District and its ratepayers. The District will seek opportunities to leverage external resources to complement its own outreach.

8.6.2. Communication Objectives

Communication objectives during the various water shortage levels of the WSCP include the following:

- Motivate water users to quickly increase conservation in ways that are consistent with any voluntary or mandatory actions called for at the current level of the WSCP.
- Raise awareness and understanding of the drought, regulatory, or other condition affecting water supplies and the need for increased conservation.
- Minimize confusion and maintain regional consistency with conservation messages using an appropriate tone that preserves credibility and avoids noncompliance backlash.
- Make water users feel appreciated for existing accomplishments in improving their water-use efficiency, and for supporting regional and local investments in water supply reliability.
- Educate regional civic and business leaders, elected officials, and the public that the District, in conjunction with the Authority and its member agencies, has greatly improved its regional water supply reliability.
- Prepare the District for any potential escalation (or de-escalation) of the WSCP based on trending supply conditions.
- Ensure all stakeholders believe they are being treated fairly in relationship to other stakeholders.
- Maintain communication effectiveness by soliciting or monitoring feedback from member agencies, key stakeholders, and the general public to update or adapt messages or communication tools.
- Exit WSCP implementation having demonstrated the effectiveness and value of conservation actions and water supply reliability investments in minimizing impacts to the District's economy and quality of life.

8.6.3. Communication Channels

The District has developed various channels and means of implementing its communication to customers. The District may update its website, newsletters, envelope snipes, and direct mailers to reflect conditions and convey key messaging. The District may also provide press releases and host interviews or hold other events to announce or explain changes in conditions.

8.6.4. Communication Protocols for Current or Predicted Shortage

A current or predicted shortage, as determined by the annual assessment, will be communicated to the public upon submittal of the Annual Assessment Report in June of any given year.

The existence of a water shortage response Level 1 condition may be declared by the general manager upon a written determination of the existence of the facts and circumstances supporting the determination. A copy of the written determination shall be filed with the board secretary and provided to the board of directors. The general manager may post in the lobby of the administration office and publish a notice of the determination of existence of drought response Level 1 condition in one or more newspapers, including a newspaper of general circulation within the District. The District may also post notice of the condition on its website.

The existence of water shortage response Level 2, Level 3, Level 4, Level 5, or Level 6 conditions may be declared by resolution of the District board of directors adopted at a regular or special public meeting held in accordance with state law. The mandatory conservation measures applicable to drought response Level 2, Level 3, Level 4, Level 5, or Level 6 conditions shall take effect on the tenth calendar day after the date the response level is declared. Within five days following the declaration of the response level, the District shall publish a notice of the resolution in a newspaper used for publication of official notices and post it on the District's website. If the District establishes a water allocation, it shall provide notice of the allocation by including it in the regular billing statement or by any other mailing to the address to which the District customarily mails the billing statement or fees or charges for ongoing water service. Water allocation shall be effective on the fifth calendar day following the date of mailing or at such later date as specified in the notice.

The existence of a water shortage response Level 6 condition may be declared in accordance with the procedures specified in California Water Code Sections 351 and 352. The mandatory conservation measures applicable to water shortage response Level 6 conditions shall take effect on the tenth day after the date the response level is

declared. Within five days following the declaration of the response level, the District shall publish a notice of the resolution in a newspaper used for publication of official notices.

The District's board of directors may declare an end to a water shortage response levels 2 through 6 by the adoption of a resolution at any regular or special meeting held in accordance with state law.

8.6.5. Water Shortage Communications

To reduce water consumption during any water shortage level, the District will increase its public education and outreach efforts to build awareness of needed action from the public. In addition, the District's outreach campaign will be regularly revised to reflect current conditions. Key communication strategies and associated water shortage level implementation are listed below. Communication strategies built from previous levels are assumed to be built upon as the Shortage Level increases. Communication strategies by water shortage level may include, but are not limited to, the following:

8.6.6. Levels 1 and 2

- Announce status change to key stakeholders and the general public.
- Share regular updates to customers on conditions.
- Promote consistent regional messaging and conservation programs to customers in coordination with CWA and neighboring agencies.
- Engage with member agencies to develop a more serious campaign message that reflects the need for compliance with mandatory water-use restrictions (Level 2)
- Conduct briefings of shortage and restrictions to key civic and business leaders (Level 2)
- Provide conservation information and other support as necessary to government officials for their own media events, hearings, community meetings, etc.
- Send clear, consistent, and understandable messages regarding mandatory water-use restrictions in effect.
- Enhance media relations activities and social media communications related to water-use restrictions, conservation programs and drought conditions.
- Expand community engagement on drought campaign through bill inserts and website information.
- Enhance efforts to encourage customers to report incidents of water waste.
- Promote available resources to aid vulnerable populations.

8.6.7. Levels 3 and 4

- Announce status change to key stakeholders and the general public.
- Share regular updates to customers on conditions.

- Promote available water assistance resources for vulnerable populations.
- Work with member agencies to develop and share a more serious campaign message that reflects the need for higher level of extraordinary conservation.
- Initiate targeted outreach to major CII water users to help them identify, prepare for and, as much as possible, avoid negative impacts from extreme water conservation requirements.
- Promote compliance with specific, District-wide water-use restrictions.
- Provide specialized technical assistance sessions or resources to help homeowners achieve immediate reductions in water use while minimizing landscape damage.
- Consider providing specialized technical assistance to large landscape customers (HOAs, cities, schools, etc.) to help achieve large-scale reductions in discretionary outdoor water use.
- Conduct specialized outreach to industries (hospitality, car washes, restaurants, etc.) or other large-scale water users (schools, park, and recreation districts) that will likely experience impacts from emergency conservation to determine solutions for minimizing economic or quality of life impacts.

8.6.8. Level 5 and 6

- Work with member agencies to develop campaign messages and tactics that raise awareness of the extreme shortage conditions facing the region and the likely need to focus water use on essential public health and safety needs.
- Announce status change to key stakeholders and the general public.
- Share regular updates to customers on conditions.
- Suspend promotion of long-term water use efficiency programs/tools to focus on imminent needs.
- Promote all available resources to aid vulnerable populations.
- Send clear, consistent, and understandable messages regarding what uses of water or levels of water use remain acceptable for residential, commercial, and public water users.
- Emphasize the need for all residents and businesses to work together to help the region successfully weather the situation.
- Coordinate with regional emergency response agencies/services on messaging/additional outreach tactics if needed.

8.6.9. Catastrophic Communications

In the event of a catastrophic supply interruption that requires water use to be quickly prioritized for or limited to essential public health and safety needs, the District will immediately deploy appropriate strategies from Water Shortage Levels 1 through 6. In addition, outreach messaging will reflect emergency conditions and the

need to focus on health and public safety. Catastrophic communications strategies may include, but are not limited to, the following:

- Announce status change to key stakeholders and the general public.
- Provide regular update to stakeholders and the media on conditions.
- Implementation of any appropriate strategies and tactics from Levels 1-6
- Shift to messages that reflect emergency condition and need to focus water use on health/safety needs
- Provide joint news release/news events with public health officials to announce conditions and explain needed action.
- Ensure ongoing coordination with emergency response services.
- Send clear, consistent, and understandable messages regarding what uses of water or levels of water use remain acceptable for residential, commercial and public water users, and the expected duration of this restricted level of water use.
- Conduct specialized outreach to landscape and related industries with significant outdoor water use to urge immediate end to landscape water use.

8.7. COMPLIANCE AND ENFORCEMENT

The District's inclining block rate structure contains two or three different prices for water used in different quantities. The highest rate is called "High Water Usage" and is priced to discourage water used in quantities subject to these rates.

Contained within the District's Rules and Regulations are penalties or charges for violations of the water use restrictions during water shortage conditions. An increasing level of fines is levied for up to four violations at the same address. Any subsequent violations at the same address will result in appropriate limitation of service by use of a flow restrictor or discontinuance of service.

The District Policy 10.1-12 of the WSCP lists violations and penalties as follows:

(a) Any person, who uses, causes to be used, or permits the use of water in violation of this policy is guilty of an offense punishable as provided herein.

(b) Each day that a violation of this policy occurs is a separate offense.

(c) Administrative fines may be levied for each violation of a provision of this policy as follows:

1. A warning for a first violation.
2. One hundred dollars for a second violation.
3. Two hundred dollars for a third violation of any provision of this policy within one year.

4. Five hundred dollars for each additional violation of this policy within one year.

(d) Violation of a provision of this policy is subject to enforcement through installation of a flow-restricting device in the meter.

(e) Each violation of this policy may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding $1,000, or by both as provided in Water Code section 377.

(f) Willful violations of the mandatory conservation measures and water use restrictions as set forth in Section 7.0 and applicable during a Level 4 condition may be enforced by discontinuing service to the property at which the violation occurs as provided by Water Code section 356.

(g) All remedies provided for herein shall be cumulative and not exclusive.

Procedures for notice, nonpayment and appeal of water shortage penalties, along with procedures for hardship variances, are outlined in the District's Water Shortage Response Policy and Procedures (**Appendix N**).

8.8. LEGAL AUTHORITY

The District has the legal authority to implement and enforce its WSCP. California Constitution Article X, Section 2 and Water Code Section 100 provide that water must be put to beneficial use, the waste or unreasonable use or unreasonable method of use of water shall be prevented, and the conservation of water is to be exercised with a view of the reasonable and beneficial use thereof in the interest of the people and the public welfare. Sections of Water Code Chapter 3 commencing with Section 350 of Division 1, provide the authority for the governing body of a water agency to declare a water shortage and to adopt and enforce water conservation restrictions. (Water Code §§ 350- 359, 375-378.0.)

If necessary, the District shall declare a water shortage emergency in accordance with Water Code Chapter 3 of Division 1. Once having declared a water shortage, the District is provided with broad powers to implement and enforce regulations and restrictions for managing a water shortage. For example: Water Code Section 375(a) provides:

Notwithstanding any other provision of the law, any public entity which supplies water at retail or wholesale for the benefit of persons within the service area or area of jurisdiction of the public entity may, by ordinance or resolution adopted by a majority of the members of the governing body after holding a public hearing upon

notice and making appropriate findings of necessity for the adoption of a water conservation program, adopt and enforce a water conservation program to reduce the quantity of water used by those persons for the purpose of conserving the water supplies of the public entity.

(Water Code Section 375(a).) CWC Section 375(b) grants the District with the authority to set prices to encourage water conservation. Under California law, including CWC Chapters 3.3 and 3.5 of Division 1, Parts 2.55 and 2.6 of Division 6, Division 13, and Article X, Section 2 of the California Constitution, the District is authorized to implement the water shortage actions outlined in this WSCP. In water shortage cases, shortage response actions to be implemented will be at the discretion of the District and will be based on an assessment of the supply shortage, customer response, and need for demand reductions as outlined in this WSCP and the District's adopted Water Shortage Response Policy and Procedure. The District has included a copy of its Water Shortage Response Policy and Procedure in **Appendix N**.

It is noted that upon proclamation by the governor of a state of emergency under the California Emergency Services Act (Chapter 7 (commencing with Section 8550) of Division 1 of Title 2 of the Government Code) based on drought conditions, the state will defer to implementation of locally adopted water shortage contingency plans to the extent practicable. The District will coordinate with regional and local water suppliers for which it provides water supply services for possible proclamation of a local emergency as necessary under California Government Code, California Emergency Services Act (Article 2, Section 8558).

8.9. FINANCIAL CONSEQUENCES OF WSCP

The Act requires that water suppliers prepare a shortage contingency analysis to address the impacts on revenue and expenditures when water shortages occur. The District completed an analysis of financial impacts and methods to mitigate the effects of reduced revenues as a result of severe water shortages of various levels of severity. High Usage water tiers would be implemented and added or adjusted to balance revenues and expenditures by drought stages ranging from 10%to 50% reduced water supply.

Initially, drought conditions may result in increased usage and water sales revenue as outdoor water use increases due to higher temperatures and below average rainfall. Severe or prolonged drought conditions could decrease water availability and cause usage to be curtailed resulting in a reduction of the District's water sales revenues.

With the decreased usage during severe

drought conditions, water purchase expenses, pumping expenses, and water treatment costs would decrease by a corresponding amount. Other operating expenses, such as administrative expenses, would be relatively unaffected unless specific actions are taken to reduce staff and or services.

The District relies on water sales revenue to cover operating expenses. A shortfall in water sales could be covered by increasing of water use tiers and increases water rates and by reserve fund balances in the short term. The District has a rate stabilization reserve fund along with general reserve funds that could be utilized to cover operating expenses. However, in severe drought situations where the offset of reserve fund balances and acceptable rate increases are not enough to cover operating expenses, the nonessential operating expenses may need to be cut back in order to offset lower revenues.

8.10. MONITORING AND REPORTING

The District monitors how effective the combination of water shortage response actions in each water shortage level is with meters. All residential, commercial, and irrigation customer accounts are metered. During times of declared water shortages under the District's Water Shortage Response Policy and Procedure, the District will review the metered billing data and compare this data with water billing data in prior months and during non-shortage years to determine if demand is being reduced. If the needed percent reductions are not being met, the District can implement additional shortage response actions. The District will be required to report its annual supply and demand to the state in the annual assessment report, due June 1 of each year starting in 2022. Additionally, the District reports total monthly production to the State Water Resources Control Board as originally required by Governor Brown's Executive Orders B-29-15 and B-36-15.

The District has a 24-hour telemetry system, installed in 1992 and updated to utilize current technology, which monitors the water flows in the distribution system, pump stations, and reservoirs (water storage tanks), as well as control valve settings on the turnouts. If any difficulties or questions of accuracy develop in the telemetry monitoring of the District's facilities, due to power outages, etc., crews will be dispatched at least twice a day to take manual readings. During emergencies, or 50% supply cutbacks, the reservoir levels will be reported to the General Manager on a daily basis.

8.11. SPECIAL WATER FEATURE DISTINCTION

Per Water Code Section 10632(b), for purposes of developing a WSCP pursuant to

subdivision (a), an urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

The District's demand reduction measures clearly define water features subject to restrictions to only include ornamental fountains, ornamental lakes, and ornamental ponds. Refer to Section 8.5.

8.12. PLAN ADOPTION AND IMPLEMENTATION

The District's adoption, submittal, and implementation of its WSCP is completed in a transparent manner that is accessible to all interested parties, including its customers, local government agencies and their employees, as well as proactive coordination with neighboring water agencies. Transparency is important for a successful operation and planning of our local, regional and state water resources.

In most cases, the District notices, adopts, submits and makes available its WSCP in conjunction with its UWMP every five years and follows the processes and schedule outlined in Chapter 10 of the District's UWMP. However, the WSCP may be periodically amended independently of the UWMP as needed. The District will adhere to the following steps for adoption, submittal and availability when independently amending the WSCP.

- Staff reviews WSCP and proposed amendments based on analysis
- Provide legally required notice to public, cities, and counties
- Public Hearing & Board Adoption, Implement
- Submit to Department of Water Resources
- Publish WSCP on website and notify customers via existing print/digital outreach channels

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Section 9: Conservation Measures

Conservation measures, including those aimed at water waste prevention, are an essential part of the City's policies.

9.1. CHAPTER SUMMARY

Demand management, better known as water conservation, comprises a number of methods to reduce the demand for water in Lakeside. Chapter 9 provides a comprehensive description of the water conservation programs. Lakeside is part of a bigger conservation program through SDCWA and MWD. Lakeside customers benefit by being part of the larger regional program. The water saved through conservation can be used to offset the demand on other water sources, which is why water conservation is a critical part of the long-term strategy of CWA to provide a diversified and reliable water supply for the County's future population and economy. Conservation programs: (1) reduce demand for expensive, imported water; (2) demonstrate a continued commitment to the Best Management Practices; (3) assist water districts in the County to meet the requirements of the Water Conservation Act of 2009 (SBX7-7) as discussed in section 5; (4) ensure a reliable future water supply; and (5) reduce reliance on the Delta. District has included this summary of Chapter 9 in accordance with CWC Section 10630.5.

9.2. DEMAND MANAGEMENT MEASURES

The District has used a combination of water metering, conservation pricing, public education and outreach, water waste

prevention ordinances, and rebates for water conserving devices to help manage and reduce water demand. Active water conservation management strategies include participation in Metropolitan's regional programs and partnerships with San Diego Gas & Electric (SDG&E) on water and energy programs, and incentives to businesses and property owners based on actual water savings. Passive water conservation management strategies include programs that encourage long-term behavior change towards measurable reductions in outdoor water use; increase the landscape industry's basic knowledge regarding the interdependency between water efficiency design, irrigation design, and maintenance; and participation on statewide, national, and industrial committees to advance behavior-based conservation strategies. Additional passive programs and policies include outreach activities, plumbing code changes, legislation, and conservation-based rate structures.

The use of these active and passive water conservation measures, programs, and policies will facilitate market transformation and promote the behavioral change that is at the core of the long-term conservation planning.

9.2.1. Water Waste Prevention Ordinances

The District's policies and procedures manual, Section 10.1 - Water Shortage Response Policy and Procedure, provides for mandatory restrictions on water consumption and water waste (**Appendix N**) during shortages and has provisions for penalties. This policy was adopted by a resolution of the District's board of directors in May 2021, preceding the adoption of the district's 2020 Urban Water Management Plan, and effective upon adoption.

9.2.2. Conservation Pricing and Metering

The District's rate setting process is compliant with Proposition 218 requirements. Billing is done through a combination of a base charge and volume of water used. For single-family domestic users, the District's largest class of water users, the District has a 2-tiered, increasing-block rate structure that reflects the District's cost of providing water service to each tier. Commercial, multi-family, and government class rates have uniform rates. The District established an inclining block rate structure to encourage decreased water use during times of supply shortages. There are normally two tiered levels of water usage; Life Line Rate, which is the lowest rate, and Standard Rate, which is the higher rate. The more water that is used by the customer the higher the rate is charged to that customer encouraging water

conservation. Under a Level 3 condition a third highest tier was added to encourage conservation. Under Level 4 and 5 another tier can be added to penalize those who do not conserve water. Lakeside has a very low set meter charge of $13.80 bi-monthly for a 5/8" meter. If a customer reduces water usage it can be seen in the total amount of the bill so customers with low usage also have a low bill. Customers have the ability to save money by reducing their water usage. The District requires meters on all connections within its service area; all service connections are metered and accounts are billed based on metered volume of water use. The District maintains a computerized meter data system which tracks meter data including class, size, type, installation date, and consumption.

9.2.3. Programs to Assess and Manage Distribution System Real Loss

The District quantifies its volume of apparent and real water loss, and cost impacts, by completing an annual water audit and balance using the AWWA Water Loss software. The District achieved a water audit validity score of 71% for the 2019-20 reporting year. Unbilled water loss quantified in the audit is the difference between water sales and water production, and can be accounted for by miscellaneous losses such as fire protection, system flushing, meter error, pipeline breaks, etc.

The district has assembled a water loss task force to complete the annual water loss audit and make recommendations on additional processes to further prevent losses. Routine and planned system maintenance to reduce water loss includes:

- Ongoing meter replacement program;
- Meter accuracy testing program;
- Tracking water used for maintenance and capital project flushing, and mainline flushing;
- Repair detected system as soon as possible.

As noted in **Section 6.6.2**, the District's Validated Water Loss Audits can be located on DWR's WUE Portal:

wuedata.water.ca.gov/awwa_plans.

9.3. WATER CONSERVATION ACHIEVEMENTS

Lakeside is part of CWA Conservation Programs. This section provides information on CWA's recent achievements in water conservation. These programs and activities provide a foundation for the existing and future measures, programs, and policies. The District continues to offer rebates for a variety of water-efficient devices to residential, commercial, industrial, and institutional customers through a regional rebate program run by one of the District's

wholesalers, MWD, through the SoCal Water$mart rebate program. Devices eligible for rebates as well as the rebated amount have fluctuated each year depending on plumbing codes, participation and funding levels. Additionally, in 2020, the District received funding from MWD to administer an in-house rebate program for Flume Flow Sensors, which provide customers with leak notifications and the ability to monitor their water use in real time.

9.3.1. Grant Funding

CWA supplements funding of its water conservation programs through the use of grant funding. CWA was awarded private, state, local, and federal grants. Grant funding sources include the Bureau of Reclamation, DWR, SDG&E. Examples of the types of programs awarded grant funding are shown bellow:

- WaterSmart Landscape Makeover Program
- Landscape Water Use Evaluations
- Drought Response Outreach and Communications
- WaterSmart Turf Replacement Program
- Sustainable Landscape Program
- School Education Programs
- Agricultural Irrigation Efficiency Program
- Detention Facility Retrofits

9.3.2. Water Authority Staffing

The Water Authority's Public Outreach and Conservation Department has 19 full-time staff members to design, implement and manage regional water-use efficiency and public outreach programs; develop and support water-use efficiency policy; manage the CWA's Small Contractor Outreach and Opportunities Program; provide technical assistance to its 24 member agencies; implement regional programs to support member agency compliance with SBX7-7; and perform grant acquisition and administration duties.

9.3.3. Regional WaterSmart Turf Replacement Program

The Water Authority implemented a regional, grant-funded turf replacement rebate program from December 2012 to January 2016 that provided financial incentives to participants who replace existing turf with water-efficient landscaping. The WaterSmart Turf Replacement Program promoted outdoor water-use efficiency through financial incentives of $1.50 per square foot to participants who replaced existing water-intensive turf grass with WaterSmart landscapes that included climate-appropriate plants and water-efficient irrigation systems. Turf replacement projects had to be in front or side yards and visible to the public and had to inspire others to pursue landscape conversions. Eligible

residential sites received up to $3,000 in incentives; eligible commercial, institutional, and industrial sites up to $9,000. The program's rebates were funded with more than $1.7 million in grants from a combination of state and federal sources.

9.3.4. SoCal WaterSmart Residential Program

The SoCal WaterSmart regional residential program offers rebates for turf removal, high-efficiency clothes washers and toilets, weather-based irrigation controllers, rotating nozzles, and rain barrels for stormwater capture. Since the Water Authority joined the program in 2008, more than 52,000 high-efficiency clothes washers and 29,000 high-efficiency toilets were installed in the region through the program. In addition, more than 6.6 million square feet of turf grass was removed. The estimated lifetime water savings for these measures exceeds 59,000 acre-feet.

9.3.5. Cal WaterSmart Commercial, Industrial, and Institutional Program

The SoCal WaterSmart Commercial, Industrial, and Institutional (CII) program offers an incentive to eligible CII customers to remove existing water-intensive turf grass and replace it with water efficient landscaping. Through this program, more than 6 million square feet of turf grass was replaced with water-efficient landscapes with a lifetime water savings of more than 8,000 acre-feet. The SoCal WaterSmart Program offered rebates to replace select, older, inefficient devices with water-efficient devices, including enhanced rebates for fixtures for fitness centers and enhanced rebates for public agencies for landscape devices. Since 2012 more than 105,000 water-efficient devices were installed in the region through the program with a lifetime water savings of more than 10,000 acre-feet. Examples of the types of efficient water-use devices are shown below:

Plumbing Fixtures

- High-efficiency toilets
- Ultra-low and zero water urinals
- Plumbing control valves

Landscape Equipment

- Irrigation controllers
- Rotating and large rotary nozzles
- In-stem flow regulators
- Soil moisture sensor systems

Food Equipment

- Connectionless food steamers
- Air-cooled ice machines

HVAC Equipment

- Cooling tower conductivity controllers
- Cooling tower ph controllers

Medical and dental equipment

- Dry vacuum pumps

9.3.6. Water Use Efficiency Programs Available in San Diego Region

Commercial, Industrial & Institutional Incentives & Programs:

1) Water Efficiency Surveys
2) Agricultural Water Management Program
3) Water Efficient Landscape Dual Certification Program (WELDCP)
4) Landscape Evaluation and Value Enhanced Services (LEAVES)
5) SoCalWaterSmart Device Rebates:
   a) Turf Replacement Program
      i) Weather Based Irrigation Controller
   b) Rotating nozzles
   c) Large rotary nozzle
   d) Flow sensors and master valves
   e) In-stem flow regulator
   f) Soil moisture sensor system
   g) Premium high-efficiency toilet
   h) Ultra-low and zero water urinal
   i) Plumbing flow control valve
   j) Food equipment devices
   k) Connectionless food steamer and air-cooled ice machines rebates
   l) Cooling tower conductivity controllers and cooling tower pH controller rebates
   m) Dry vacuum pump and laminar flow restrictor rebates
6) HVAC equipment
7) Medical and dental equipment
8) Recycled Water On-Site Retrofit Program
9) Water Savings Incentive Program
10) Income-based/DAC direct install for toilets and irrigation controllers
11) County of San Diego Waterscape Rebates for unincorporated customers: WBICs and turf supplemental rebates

Residential Rebates, Programs, and Classes

1) Landscaping workshops
2) Landscape makeover videos on demand
3) SoCalWaterSmart Device Rebates
   a) Turf Replacement Program
   b) Weather based irrigation controllers
   c) Rain barrel
   d) Soil moisture sensor
   e) Sprinkler nozzle
   f) Flow monitoring/leak detection device
   g) Premium high-efficiency toilet
   h) High-efficiency clothes washer
4) Income-based/ DAC direct install for toilets and irrigation controllers
5) County of San Diego Waterscape Rebates for unincorporated customers: rain barrels, cisterns, WBICs and turf supplemental rebates

Other

1) Member Agency Administered Program (MAAP) Funding for regional programs

9.3.7. Water Savings Incentive Program

The Water Savings Incentive Program targets commercial, industrial, institutional and agricultural customers with high water use

to improve water-use efficiency through financial incentives for customized water efficiency projects. Projects eligible to participate included changing an industrial process water system to capture, treat and reuse process wastewater; installing new, water-efficient equipment in commercial kitchens and laundries; and contracting with a qualified water manager to improve landscape irrigation efficiency.

9.3.8. Water and Energy Efficiency Programs

For more than 25 years, the Water Authority and SDG&E have partnered on a variety of programs and projects to generate significant water and embedded energy savings. Highlights from the Water Authority and SDG&E partnership include showerhead distributions, pre-rinse spray valve installations, high-efficiency clothes washer rebates, energy efficiency assessments for water agencies, home energy and water savings kit distributions, joint marketing strategies, and a water-energy pilot program that evaluated embedded energy use in the water sector. Over the last five years, the focus on the relationship between water use and energy use in California increased and the California Public Utilities Commission (CPUC) directed energy utilities to form partnerships with water agencies to reduce embedded energy use through water efficiency programs. Moving forward, Water Authority and SDG&E partnership activities include a continuation of the joint rebate for residential high-efficiency clothes washers, collaboration with SDG&E on its residential Energy Savings Assistance Program, cross-marketing of water and energy efficiency programs, and an assessment of additional joint program opportunities. Information on existing and previous partnership programs is shown below.

<u>WaterSmart Landscape Efficiency Program</u>

The WaterSmart Landscape Efficiency Program targeted a 20 percent reduction in water use at sites with multiple acres of irrigated landscape. The program achieved a portion of the water savings through a pre-implementation audit of the site's irrigation system to identify and fix any malfunctioning and broken irrigation components, and a portion of the water savings through services provided by a water management service company that adjusted the site's irrigation schedule to match the site's irrigation demand. The program is being redesigned to address the reduction of stormwater runoff associated with dry weather flows and inefficient irrigation.

9.3.9. WaterSmart Customer Education and Workforce Training

Consistent with its focus to promote the long-term market transformation of conventional urban landscapes to more water-efficient and sustainable landscapes,

the Water Authority offers a variety of education and training opportunities for customers and landscape industry professionals, respectively. Course content is designed to promote best practices for landscape water-use efficiency while empowering customers to take action and make informed purchasing decisions when upgrading their landscapes. The following are offered in partnership with the Water Authority's 24-member agencies:

WaterSmart Landscape Makeover Series

The series of four workshops provides homeowners an overview and the basic skills necessary for the successful conversion of a traditional turf grass yard into a WaterSmart landscape. Participants receive technical assistance that includes a professional site inspection and development of a base plan to scale, in addition to a professional design consultation. Upon completion of the course, participants have a landscape design with planting and irrigation plans that are ready for implementation. Recent program upgrades include providing stormwater retention plans based on "first flush" calculations. The average size of the turf replacement projects planned by participants is more than 1,000 square feet.

WaterSmart Landscape Design for Homeowners Workshop

To accommodate homeowners who prefer an abbreviated version of the WaterSmart Landscape Makeover Series of classes, the Water Authority developed a three-hour version of the classes. This short-format workshop accommodates higher numbers of participants per session, which helps to accelerate the number of homeowners who will be empowered to convert existing water-intensive yards into landscapes that can achieve significant water savings through climate-appropriate plant choices, irrigation efficiency upgrades and stormwater runoff prevention.

WaterSmart Landscape Makeover Videos on Demand

To help make the main content of the WaterSmart Landscape Makeover Series even more widely available and convenient for homeowners to access, the Water Authority transformed the program Section 3. Demand Management into a series of online videos. These videos, as well as links to a variety of resources, take the participant through the steps to achieve a WaterSmart landscape. The steps include identification of their landscape target, creation of a basic plot plan, an evaluation of their site, soil analysis, landscape design, irrigation retrofit and landscape maintenance. Future videos

will address sustainable landscape concepts such as capturing rainwater to prevent urban stormwater runoff.

California Friendly Landscape Training

The Water Authority and its member agencies partnered with Metropolitan to offer free introductory training classes on WaterSmart landscaping. The classes introduced a holistic approach to landscape design and maintenance that emphasized water-use efficiency. The three-hour classes were fast-paced and informative and offered solutions to common landscape problems. Participants learned to think about landscapes from the soil up. In addition, they learned how to design landscapes that are sustainable in the region's climate. Class topics included how to make the best use of the region's limited rainfall, irrigate efficiently, and choose the best plants for the site.

Qualified Water Efficient Landscaper (QWEL) Training

The Water Authority introduced this robust training program to San Diego County as a workforce training opportunity to help landscape industry professionals learn the latest techniques for landscape water-use efficiency. Originally developed by the Sonoma-Marin Saving Water Partnership, QWEL is recognized by U.S. Environmental Protection Agency (EPA) as a WaterSense labeled Professional Certification Program for Irrigation System Audits.

9.3.10. WaterSmart Tools and Resources

Feedback from polls and focus groups indicates the public understands the need for water-use efficiency and wants to do the right thing, but is often overwhelmed by how to accomplish it. In response, tools and resources were developed to inspire, educate and empower residents and business to take a water-efficient action. These tools and resources foster long-term behavioral change and market transformation by showcasing the beauty and value of WaterSmart landscapes, products and services. Tools and resources developed by the Water Authority are described below.

WaterSmartSD Website

In 2013, the Water Authority launched a comprehensive water conservation website as an online resource to inspire, educate, and empower the region's residents to make water-efficient lifestyle choices. The website, WaterSmartSD.org, features information about conservation incentives, tools and programs designed to make the most of the region's limited water supplies. The site is organized to provide content relevant to the residential and business sectors. The website also features news

items and events, videos, a photo gallery highlighting successful WaterSmart landscaping projects, case studies and other information about indoor and outdoor water-use efficiency. It includes conservation tips and answers to frequently asked questions, along with links to helpful tools such as a water-use calculator, free garden design software and residential landscape design templates. The Water Authority updates WaterSmartSD.org regularly and visitors can sign up for automatic notifications relevant to their areas of interest.

eGuide to a WaterSmart Lifestyle

The eGuide to a WaterSmart Lifestyle is an online magazine that covers a wide array of topics, including landscape design, water-efficient plants, outdoor rooms, finding and fixing leaks, healthy soil, smart buys on plumbing fixtures, landscape maintenance and drought survival for gardens. It offers everything from design ideas for creating themed planting zones to strategies for using graywater at homes and irrigating efficiently.

A Homeowner's Guide to a WaterSmart Landscape

A Homeowner's Guide to a WaterSmart Landscape is the companion guide to the Water Authority's award-winning WaterSmart Landscape Makeover Series. This no-cost guide offers instructions for homeowners who want to make their landscapes more water-efficient. The guide reflects California's Model Water-Efficient Landscape Ordinance standards and explains the principles of a WaterSmart landscape design and irrigation, climate-appropriate plants and BMPs.

Residential Landscape Design Templates

Professionally drawn, water-efficient landscape plans are available online to provide ideas and inspiration for single-family homeowners, particularly for do-it-yourselfers. San Diego landscape architects designed four templates that support the state's 2020 Model Water Efficient Landscape Ordinance. Plans are themed to fit common family audiences, including Empty Nesters, Entertainer, Pet Friendly, Children Friendly, and Native/Wildlife Friendly Landscape.

Online Residential Water-Use Calculator

The Water Authority launched its Residential Water-Use Calculator (watersmartsd.org/watercalculator) in 2013 in partnership with the Alliance for Water Efficiency. The objective of the water-use calculator is to assess and educate homeowners about their indoor and outdoor water use and inspire them to make

changes in their behavior, fixtures or landscape that will make their home more water-efficient.

Smart Water Application Technologies

The Water Authority collaborated with industry for many years to promote the research and application of the best practices and technologies to save water. Under the auspices of the Irrigation Association, water utilities, irrigation product manufacturers and other landscape professionals collaborated in the Smart Water Application Technologies (SWAT) committee. SWAT's achievements include the development of a standardized testing protocol for weather-based irrigation controllers to help water utilities establish product eligibility standards for rebates. The standardized testing protocol was also a precursor to the establishment of EPA's ongoing WaterSense product labeling standards. Looking ahead, SWAT testing protocols under development include pressure-regulating spray heads, spray head sprinkler nozzles, pop-up sprinkler head check valves, rain sensors, weather-based controllers, and soil moisture–based controllers. The test results will provide valuable information in the development of the next generation of water-efficient products.

Water Conservation Garden

The Water Conservation Garden opened in 1999 to educate the public about the steps they can take to conserve water in landscapes. It occupies nearly six acres adjacent to Cuyamaca College in the eastern part of the Water Authority's service area. The Garden showcases 16 different mini-gardens and exhibits and provides school-education programs and outreach, low-water-use classes and workshops, and community events. CWA joined the Garden's Joint Powers Authority in 2001 and continues to support its efforts to promote water efficiency in the landscape sector.

San Diego Botanic Garden

The San Diego Botanic Garden is located in the north-coastal area of San Diego County. The Water Authority supports its vision through a corporate sponsorship. The mission of the Botanic Garden is to promote sustainable use of natural resources. Low-water-use plants and water-saving technologies and displays make up the majority of the gardens. In an effort to reduce outdoor water use in the region, the Botanic Garden also provides classes on water conservation and garden tours throughout the year in an effort to reduce outdoor water use in the region.

9.4. Public Outreach

The District continues to actively promote water use efficiency and conservation through a variety of channels. Bills are sent to all customers every two months which may include messaging along with newsletters, website articles, messaging on the envelopes and bill inserts have proven effective.

CWA has consistently promoted water-use efficiency programs through its communications and outreach channels as part of its overall long-term strategy to improve the reliability of the region's water supplies by diversifying its water supply sources and advancing conservation. In addition, during times of shortage or drought, CWA dedicates additional resources to public awareness campaigns that call upon the public to take more immediate actions to save water.

<u>"20-Gallon Challenge" Campaign</u>

In response to worsening water supply conditions that began in 2007 and lasted until April 2011, the Water Authority conducted an aggressive outreach campaign branded as the "20-Gallon Challenge." The campaign's name reflected the initial call to cut urban water use voluntarily by 10 percent, or about 20 gallons per capita per day (GPCD) at the time. The outreach campaign was a multi-faceted approach to educate the community on the short- and long-term water supply challenges, specific tips to save water, and resources available to implement those changes. Tactics to help the region meet an 8 percent overall shortage allocation between July 2009 and April 2011 included traditional advertising, media relations, online communications, water agency relations, education curriculum and contests, government relations, and community outreach via presentations and events. The campaign, combined with the ongoing implementation of other Water Authority conservation programs and outreach efforts conducted by its local member agencies, helped achieve water savings well above the allocation target. Total potable water use dropped from 211 gallons per person per day in fiscal year 2007 to 140 gallons per person per day in fiscal year 2011.

<u>Promoting WaterSmart Programs</u>

Since the end of shortage allocations in 2011, the Water Authority has been focusing outreach efforts on building awareness and public acceptance for water-use efficiency as a desirable lifestyle and permanent civic responsibility through promoting the Water Authority's WaterSmart-branded conservation programs and classes. Staff promotes these resources primarily through ongoing media relations, community relations activities (such as attending special

events and making presentations to community groups), targeted advertising, promotional materials, videos, electronic newsletters, innovative public-private partnerships such as the water-efficient plant fairs with local The Home Depot stores, and through tools such as social media (primarily Facebook, Twitter and YouTube) and the WaterSmartSD.org website.

"When in Drought" Campaign

In early 2014, water supply conditions worsened to the point where it again became necessary to launch an urgent drought-response outreach campaign as called for under the Water Authority's Water Shortage and Drought Management Plan. Since April 2014, the Water Authority has executed an aggressive drought response outreach campaign themed "When in Drought: Save Every Day, Every Way," to help achieve increased water conservation by the public, and to enhance public understanding of how ratepayers' investments in projects and their commitment to water conservation have reduced the region's vulnerability to shortages from drought conditions. The campaign was partially supported in 2014 and 2015 by state Proposition 50 grant funds. In May 2015, the Board authorized an additional $1 million to support enhanced outreach and water conservation programs designed to help the Water Authority's member agencies comply with state mandated water-use reduction targets that are in effect from June 2015 through October 2016. In anticipation of continued drought conditions in 2016, the Water Authority was awarded $1.1 million in Proposition 84 Final Round grant funds to sustain enhanced drought response outreach efforts in 2016 and potentially beyond.

The campaign employed a wide array of communications tactics, including paid advertising, ongoing media relations, website communications, electronic newsletters, social media posts, videos, a Speakers Bureau, school education programs, community partnerships and promotions, and government relations. Ads and messages were translated into Spanish, and advertising and community event schedules were constructed to ensure reach into a diverse set of audiences around the region. The Water Authority also launched a "When in Drought" smartphone app in August 2015 to make it more convenient for the region's residents to report potential incidents of water waste to local water districts so they can be fixed sooner. The Water Authority also used public opinion polls and other research opportunities to test messages and tactics and revise them as needed to increase effectiveness. If drought and water supply conditions ease to the point where maintaining the "When in

Drought" campaign is no longer necessary, the Water Authority will continue to promote the "WaterSmart" brand or conduct other outreach on an ongoing basis that continues to advocate water-use efficiency as a desirable and permanent way of life in the San Diego region.

Other Outreach Efforts

In addition, the Water Authority consistently promotes conservation activities and programs through a range of activities, including the following:

- Conducting research on the public's knowledge of water issues
- Support for water conservation and other supply management and development strategies, and attitudes toward water-efficient landscaping
- Using social media, electronic newsletters, community events, and speaker's bureau presentations
- Supporting regional water-efficiency demonstration gardens, such as the Water Conservation Garden and the San Diego Botanic Garden
- Developing and providing school education materials, assemblies, and an exhibit at the Reuben H. Fleet Science Center in Balboa Park
- Administering a Citizens Water Academy that educates emerging leaders on regional water issues, including the importance of water-use efficiency and prudent investments in water supply reliability, through in-depth and engaging interactions with senior Water Authority staff and tours of key regional water facilities
- Sharing updates on local water issues, fact sheets, and information on Board meetings via a Water News smartphone app for Apple and Android devices

WEST&ASSOCIATES
ENGINEERING, INC.

8.1 Chapter Summary

The District has included this summary of Chapter 8 in accordance with CWC Section 10630.5. The CWC mandates that water agencies include in their UWMPs a water shortage contingency plan (WSCP). A WSCP, which is a detailed proposal for how an urban water supplier intends to act in the case of an actual water shortage condition, exists as a stand-alone document and can be amended, as needed, without amending the UWMP. A water shortage may occur due to a number of reasons, such as drought, climate change, or catastrophic events. A water shortage means that there are insufficient water supplies to meet the District's normal customer water use demands at a given point in time. The District has developed this WSCP to serve as an operating manual to prevent catastrophic service interruptions through proactive, rather than reactive management. If and when shortage conditions arise, the WSCP allows the District's board, staff, and the public to identify and efficiently implement predetermined steps to manage a water shortage. The District's WSCP includes and addresses the following elements:

1) Water supply reliability assessment
2) Annual water supply and demand assessment procedures
3) Six standard water shortage stages
4) Shortage response actions
5) Communication protocols
6) Compliance and enforcement
7) Legal authorities
8) Financial consequences of the WSCP
9) Monitoring and reporting
10) WSCP refinement procedures
11) Special water feature distinction
12) Plan adoption, submittal, and availability

The WSCP is intended to be consistent with the District's UWMP and CWA's UWMP and is further intended to implement CWA's WSCP. CWA's WSCP is a response program developed by CWA in consultation with its member agencies for responding to water supply limitations resulting from drought conditions. The response levels included in the District's WSCP correspond with CWA's WSCP.

8.2 Water Supply Reliability Analysis

The District is located in a region with limited local water supplies. Since 1948, the District has relied on imported water as its primary water supply source, and it maximizes the use of available local supplies to supplement imported supplies.

As discussed in Chapter 7 of the District's 2025 UWMP, historically, water from CWA has accounted for the majority of the District's water supplies and has accounted for 90% of the District's water supply on average. Imported water is purchased from CWA, the water wholesaler for the San Diego region. The imported supplies from CWA are a mix of sources including water from the Delta and Colorado River. Looking forward, imported water is estimated to account for 3,200 to 3,500 AF of the district's annual water supplies over the next 20 years. Due to constraints on the Delta and Colorado River supplies, CWA has developed a mix of projects to diversify the imported water supply portfolio to increase reliability and reduce dependence solely on the Delta and Colorado River. Projects completed by CWA to increase reliability of supply for the region and the District include the Imperial Irrigation Conservation and Transfer Agreement, All American Canal and Coachella Canal Relining projects, San Vicente Dam Raise and Carryover Storage project, and the Carlsbad Desalination project. Additional details on CWA's water supply reliability are discussed in Chapter 9 of CWA's UWMP and are incorporated by reference herein.

Local ground water accounts for 20% of the District's supplies on average. The district estimates that groundwater will provide 360 AF annually of the district's water supplies over the next 20 years. Groundwater, which is sourced from the El Monte Valley Basin within the San Diego River Valley Basin, is pumped from our well field located at the administrative headquarters. In fiscal year 2025, the well produced 356 AF.

Every five years, the District updates its Urban Water Management Plan, which includes projecting supplies over the next 25 years, in five-year increments, for a normal water year, a single dry year, and a drought lasting five consecutive years. CWA notes that certain of its supplies, which consist of the Imperial Irrigation District water transfer, All-American Canal and Coachella Canal lining projects, and regional seawater desalination, no reduction in the availability over the five-year drought period is assumed due to the drought resilience of those supplies.

Given the development of CWA's and the District's supplies as planned and the achievement of conservation targets, as quantified in the District's Urban Water Management Plan, the District anticipates having sufficient supplies to meet demand during future normal water years, single dry years, and for a drought lasting five consecutive years.

However, low probability, high impact events can result in sudden, unanticipated loss of water supply on a catastrophic scale. These threats can be naturally occurring, such as earthquakes, wildfires or lightning that could result in dependency hazards such as loss of utility power that in turn could affect the conveyance of imported water or the functionality of the District's treatment plant. These threats can also be malevolent, such as various forms of acts of terrorism. CWA, as the regional wholesaler, has created an Integrated Contingency Plan (ICP) in conjunction with its member agencies to address catastrophic events that could eliminate access to imported water supplies. CWA's ICP identifies potential emergency situations and incidents that could trigger activation of CWA's ICP and Emergency Operations Centers, along with the policies, procedures, multi-agency coordination, mutual aid agreements and activation/deactivation guidelines associated with emergency response activities.

CWA has also created the Emergency Storage Project which is a system of reservoirs, pipelines, pump stations and other conveyance facilities (See Section 8.2 of CWA's 2025 Water Shortage Contingency Plan) intended to improve San Diego County's regional water storage capacity and allow stored emergency water to be delivered to CWA's member agencies within San Diego County during a prolonged regional interruption. The ESP facilities can be used to help deliver emergency water supply to member agencies during two- and six-month emergency events in which the region is either completely unable or partially able to receive imported water deliveries due to a disaster that renders their transmission system inoperable. CWA also has Emergency Water Delivery Plans, which identify emergency water supply deliveries to its member agencies during two- and six-month emergency events through CWA Quantification Settlement Agreement transfers, spot transfers, out-of-region storage supplies, and MWD supplies.

8.3 Annual Water Supply and Demand Assessment Procedures

Water Code Section 10632(a)(2) requires urban water suppliers to conduct an annual water supply and demand assessment and submit an Annual Assessment Report to the state beginning July 1, 2022.

The information below provides an overview of the District's process to annually assess projected water supplies and customer demands. The assessment is used to determine if there will be a shortfall in District supplies for the current year and one dry year. If the assessment identifies a shortfall in District supplies, it would trigger the District's shortage response actions as outlined in the District's WSCP.

8.3.1 Decision-Making Process

This section summarizes the decision-making process that the District will use each year to determine, and subsequently report to the state, its annual water supply and demand assessment:

Table 8-A: Decision Making Process for Annual Water Supply and Demand Assessment Procedures

Timeframe (No Later Than)	Action	Responsible District Department
May 1	Authority announces member agency allocation determination for current year, if applicable	Authority provides to Systems, if applicable
May 1	Authority determines carryover (and emergency storage apportionments if under emergency), if applicable	Authority provides to Systems, if applicable
May 1	District determines District local supply available	Systems
May 1	District determines total supply available – inclusive of local and imported supplies	Systems
May 1	District determines infrastructure constraints	Systems
May 1	District determines expected demands	Finance
May 1	District compares supply and demand and makes a determination of the water supply reliability for the current and one dry year	Water Conservation
June 15	District prepares and submits Annual Assessment Report to the state in coordination with CWA	Water Conservation
July 1, if applicable	District implements its water shortage response actions as outlined in this WSCP, if there is a gap between available water supplies and projected demand	Water Conservation makes recommendation to General Manager and/or Board as outlined in WSCP, if applicable

8.3.2 Data and Methodologies

The District will evaluate current year available supply and one dry year available supply in its annual assessment. The District's systems department will conduct the water supply evaluation annually by May 1 and by assessing the following hydrological conditions:

8.3.2.1 Local Sources

- Local stored water - Determine storage in each reservoir available for transfer.
- Wells - Determine last year's production and potential production constraints.

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8.3.2.2 Imported Sources

Imported water – Allocation determined by CWA, including available CWA carryover and CWA emergency storage, based on local and statewide hydrological conditions and contractual availability, if applicable CWA's supply allocation methodology, developed in collaboration with CWA and its member agencies, is detailed in CWA's WSCP. Since the District relies primarily on imported water, continued coordination with CWA is crucial in determining the District's available water supply.

8.3.2.3 Infrastructure Considerations

The District's systems department will also consider the District's existing infrastructure capabilities and potential constraints for the upcoming fiscal year and one dry year. The District's existing water supply infrastructure is documented in the District's geographical information system, including its treatment plant, storage tanks, pump stations, pipelines, and valves. Constraints that could potentially limit water supply availability include shutdowns due to maintenance, construction impacts, and water quality impacts. The District will also coordinate with CWA to identify regional infrastructure constraints to determine if, and how, they would impact District water supply availability. Once constraints have been identified, the District will determine if the total water supply identified as available under local and imported sources should be adjusted.

8.3.2.4 Projected Water Demand

The annual assessment will use the District's latest demand forecast. The demand forecast is completed by the District's finance department by May 1 each year. Key inputs include, but are not limited to, the District's unconstrained demand, recent water demand trends, pending water use efficiency regulations, mandatory water use restrictions, weather, and population and economic growth.

8.3.2.5 Water Supply Reliability Annual Assessment Report

The CWA's systems and finance departments will provide projected water supply and demand data to the water conservation department by May 1. CWA's water conservation department will compare supply and demand and make a determination of the water supply reliability for the current and one dry year by June 1. The District will complete and submit the District's Annual Assessment Report, and will coordinate with CWA as appropriate. The report will be submitted to the state within 14 days of receiving final allocation from the State Water Project or by July 1.

8.3.2.6 Gap Between Available Water Supplies and Projected Water Demand

If there is a gap between available water supply and projected water demand, the District's water conservation department will recommend implementation of the District's water shortage response actions as outlined in this WSCP, or reasonable alternative action, provided that descriptions of the alternative actions are submitted with the Annual Assessment Report pursuant to Water Code 10632.1.

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8.4 Six Standard Water Shortage Levels

The District has established six levels of water shortages, outlined in this WSCP and in coordination with CWA, to be implemented in times of shortage, with increasing restrictions on water use in response to decreasing available supplies due to drought or emergency events. See Submittal Table 8-1 below. To determine the appropriate level, the District will assess the water supply and demand per the procedures outlined in Section 8.3.

Submittal Table 8-1
Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions (*Narrative description)*
1	Up to 10%	Communicates supply shortage with customers and promotes voluntary water Conservation measures including recommended watering schedules and ways to reduce water waste.
2	Up to 20%	Increases conservation communications. Begins the enforcement of mandatory water use prohibitions and places limits on watering days and times.
3	Up to 30%	Increases water use efficiency and conservation communication. Deploys more restrictive water use prohibitions and gives District opportunity to issue water allocations and/or ban new connections.
4	Up to 40%	Makes more restrictive water use prohibitions. Focuses communication on extraordinary need for conservation. Expands resources for customers to help avoid damage from extreme conservation.
5	Up to 50%	Stops all landscape irrigation except for specific reasons. Bans all new connections unless project meets stringent criteria. Focuses communication and messaging to handle imminent needs.
6	>50%	Limits exemptions for watering days. Communicates the need for all businesses and residents to work together to help weather the situation.
NOTES:		

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8.5 Shortage Response Actions

Although the District has ongoing demand reduction measures in place, the District has identified three additional potential supply mitigation tools that can be utilized in response to water shortages:

1) Communication plan
2) Mandatory water use prohibitions
3) Operational changes

As noted in Table 8-B, below, the Shortage Response Matrix includes a list of potential shortage response actions available to the District at each of the six standard water shortage levels. To determine the locally appropriate actions that should be taken at each level, the District will evaluate conditions specific to the timing, supply availability, supply reduction levels, costs, and other variables. Depending on the situation, the District may not implement each of the identified actions in a response level but select only those that are most appropriate.

Table 8-B: Shortage Response Matrix

Water Shortage Level	Use Restrictions	Ongoing Water Use Efficiency	Communication Plan	Mandatory Water use Prohibitions	Operational Changes
Normal Conditions		X			
Level 1: Up to 10% (Voluntary)	Voluntary	X	X		
Level 2: Up to 20% (Mandatory)	Mandatory	X	X	X	X
Level 3: Up to 30% (Mandatory)	Mandatory	X	X	X	X
Level 4: Up to 40% (Mandatory)	Mandatory	X	X	X	X
Level 5: Up to 50% (Mandatory)	Mandatory	X	X	X	X
Level 6: Above 50% (Mandatory)	Mandatory	X	X	X	X

8.5.1 Demand Reduction

The District has adopted policies and procedures manual Section 10.1, which is also known as the Water Shortage Response Policy and Procedure and has been provided by the District in Appendix L. This policy and procedure establishes both permanent water use efficiency measures and additional demand reduction measures to be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes six levels of water shortage response actions to be implemented in times of shortage, with increasing restrictions on water use in response to worsening drought conditions and/or decreasing available supplies. The demand reduction measures correspond to the District's six water shortage levels and CWA's WSCP, as noted in Table 8-B:

Additionally, Table 8-2 summarizes the demand reduction actions, estimated percent demand reduction per action, operational changes, and whether a penalty applies.

Submittal Table 8-2: Demand Reduction Actions

Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap?	Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
1	Expand Public Information Campaign	5%		No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	2%		No
1	Other - Require automatic shut of hoses	1%		No
1	Other - Prohibit use of potable water for washing hard surfaces	1%		No
2	Expand Public Information Campaign	5%		No
2	Landscape - Limit landscape irrigation to specific times	1%		Yes
2	Landscape - Limit landscape irrigation to specific days	2%	3 days/wk	Yes
2	Water Features - Restrict water use for decorative water features, such as fountains	1%		Yes
2	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	5 days	Yes
3	Expand Public Information Campaign	5%		No
3	Landscape - Limit landscape irrigation to specific days	1%	2 days/wk	Yes
3	Implement or Modify Drought Rate Structure or Surcharge	5%		Yes
3	Moratorium or Net Zero Demand Increase on New Connections	1%		No
3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	3 days	Yes
4	Expand Public Information Campaign	5%		No
4	Landscape - Prohibit certain types of landscape irrigation	1%		Yes
4	Implement or Modify Drought Rate Structure or Surcharge	5%		Yes
4	Increase Water Waste Patrols	1%		Yes
4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	2 days	No
5	Expand Public Information Campaign	5%		No
5	Landscape - Prohibit all landscape irrigation	1%		Yes
5	Implement or Modify Drought Rate Structure or Surcharge	5%		Yes
5	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	1%	1 day	Yes
5	Implement or Modify Drought Rate Structure or Surcharge	1%		No
6	Expand Public Information Campaign	3%		No
6	Landscape - Prohibit all landscape irrigation	5%		Yes
6	Implement or Modify Drought Rate Structure or Surcharge	5%		Yes
6	Increase Water Waste Patrols	2%		Yes
NOTES: In each progressing level restrictions are cumulative.				

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PERMANENT WATER USE EFFICIENCY MEASURES

At all times, the following practices shall be in effect:

1. No outdoor watering during a rain event or within 48 hours after measurable rainfall.
2. No watering down a sidewalk with a hose instead of using a broom or a brush except to alleviate safety or sanitary conditions.
3. No washing of automobiles with hoses not equipped with a shut-off nozzle.
4. No overwatering a landscape in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures.
5. Homeowners associations (HOAs) and local governments may not penalize homeowners for certain outdoor conservation practices during a declared shortage.
6. No use of a non-recirculated potable water in fountain or other decorative water feature.
7. No serving of drinking water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served and/or purchased
8. No irrigation with potable water of ornamental turf on public street medians
9. No irrigation with potable water of landscapes outside of newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission and The Department of Housing and Community Development.

Level 1 through 6 Water Shortage Contingency Plan details are in Appendix L as updated from the Drought Response Plan in 2020.

8.5.2 Supply Augmentation

The District purchases the majority of its water from CWA, the regional water wholesaler for the San Diego region. As previously described, the District is dependent on both the CWA and the Helix Water District facilities to supply its potable water needs. CWA and its 24-member agencies, including the District, have worked collaboratively over the past two decades to diversify water supplies and develop robust water supply shortage plans. If CWA identifies a water supply shortfall, it evaluates the use of stored water reserves from CWA's Carryover Storage or pursues supply augmentation measures, such as dry-year transfers, to reduce or eliminate the shortfall. Details on CWA's supply augmentation plan are available in CWA's WSCP, referenced and incorporated herein as Appendix K. These supply augmentations occur before the district purchases water from CWA.

At a local level, the District maintains imported treated water and local groundwater. In the event that the treated water supply was interrupted, the District would have to rely on the operational storage contained in its 10 potable water reservoirs. The wells can currently supply less than one-fifth of the normal day demands. If the District were to have supplies reduced by 50 percent for a lengthy duration, as might result from a severe drought, compensatory reductions in potable water consumption would need to occur. Therefore, a 50 percent reduction in the District's supply would be matched by a 50 percent reduction in consumption throughout the District. A Level 5 would go into effect (Appendix L) and Tier 3 and Tier 4 pricing levels would also go into effect for high water usage customers.

The current combined total potable emergency water storage of 12.6 MG available in District reservoirs can provide approximately five days use under existing maximum day demand. With a 50 percent reduction in customer maximum day demand and outdoor use banned this reserve could last for 10 days. Additionally, the district maintains another 5 days of emergency storage or 11.73 MG in Padre Dams's wholesale storage system. Combined storage could last up to 20 days with 50% conservation level. The district would consider using this emergency storage in shortage Levels 5 and above. The exact amount of emergency storage available, and how long it would last, depends on projected demands and the water shortage level.

8.5.3 Operational Changes

When faced with a potential water shortage, the District will consider the following operational changes, as appropriate, to help address the shortage on a short-term basis:

- Evaluate customer water monthly using bimonthly billing data which is available on a rolling basis
- Increase customer communications
- Reduce water budget allocations for irrigation accounts
- Implement customer water shortage penalties
- Begin water patrols and enforcement
- Expedite system repairs and prioritize maintenance projects to reduce water loss
- Defer routine maintenance projects that involve extensive flushing/draining

8.5.4 Additional Mandatory Restrictions

The District's mandatory restrictions, which include limitations on outdoor watering and restrictions on using water for certain functions, are outlined in the District's Water Shortage Levels 2 through 6. See Appendix L. These will be flexibly deployed as locally appropriate to each unique water shortage situation.

8.5.5 Emergency Response Plan

The District maintains an Emergency Response Plan that establishes policies, procedures, and organizational structure for responses to major emergencies such as natural disasters, power outages, and water supply disruptions. The plan establishes emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts that utilize the Standard Emergency Management System (SEMS), as described by Government Code 8607(a) for managing the response to emergencies in California. It also incorporates the elements of the National Incident Command System (NIMS) which is a nationwide standardized approach to incident management and response. The EOP meets state and federal emergency response and recovery requirements.

The District is a member of the East County Shared Service Network of water agencies that supports and promotes statewide emergency preparedness, disaster response and mutual assistance between agencies

Supply interruption is possible by several means, including but not limited to, natural disasters such as earthquakes and local or regional power interruptions. The District maintains several water supplies that include water emergency interconnections with agencies that border the District. The District also maintains a fleet of stationary and mobile power generators capable of operating District facilities in the event of local or regional power outages. Additionally, the District maintains an inventory of critical system supplies including piping and valves for use in system repairs.

The plan addresses assessment and utilization of all water supply sources, stationary and mobile power generators, and critical inventory as required to meet the emergency at hand in order to maintain system supply during emergency interruptions.

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8.5.6 Seismic Risk Assessment and Mitigation Plan

In 2019, Helix Water District our wholesale imported water connection, commissioned Jacobs Engineering Group Inc. (Jacobs) to conduct a Risk and Resilience Assessment (RRA) in accordance with the relevant requirements of the America's Water Infrastructure Act of 2018 (AWIA), Section 2013. This RRA addresses the following key goals and objectives:

- Identifying and evaluating risks for the Helix water system by employing an all- hazards approach to include evaluation of natural hazard, dependency, and proximity threats in addition to malevolent threats.
- Conducting an RRA applying the current industry-standard methodology.
- Developing cost-effective risk-reduction recommendations to address the risks identified in accordance with industry best practices.

To meet these needs, the RRA team used the American Water Works Association's (AWWA's) methodology entitled J100-10 Standard for Risk and Resilience Management of Water and Wastewater Systems, which is the current water and wastewater industry standard for RRAs. See Helix Water District's UWMP for more information. The RRA contains seismic risk analysis and mitigation recommendations. Accordingly, the District relies on it and incorporates herein its RRA for its seismic risk assessment and mitigation plan. In general, the estimated annual likelihood of a mission-defeating seismic event on the District's systems is estimated to be very low, on the order of 2% per year or less.

8.6 Communication Protocols

The District's communication protocols include the various channels the District will utilize to convey critical messages regarding voluntary and mandatory water shortage actions and allocations, if applicable.

Public outreach programs can help increase awareness of water shortages, while customer classes and workshops can encourage ratepayers to actively participate in demand reducing strategies. A strong communication plan will help educate District customers, including local leaders and the business community, on the water supply situation; what actions are proposed; what the intended achievements are; and how these actions are to be implemented.

While specific types of messaging are deployed at various shortage response levels, how these messages can be conveyed to the public are described here. The communication protocols can be initiated upon declaration of a water shortage Level 1. Utilization of the communication protocols will continue through all subsequent water shortage levels. At times, specific communities may require specialized outreach. The District will ensure outreach efforts are reaching key audiences.

The District will communicate to ratepayers the following when urgent conservation is needed:

- Specific actions needed to save water;
- How much water needs to be saved and for how long;
- Why water needs to be saved; and
- What the district is doing to correct the supply problem or address the situation.

8.6.1 Regional Coordination

In order to communicate effectively, avoid confusion and maintain credibility, the District will work in close coordination with CWA at various organizational levels. These levels include the Joint Public Information Council/Conservation Coordinators (JPIC; staff level), the Member Agency Managers group (management level), and CWA Board's Legislation and Public Outreach Committee (Board level). During droughts or other times of limited supply, the frequency and extent of coordination will increase to ensure outreach tactics are consistent with the changing needs of the District and its ratepayers. The District will seek opportunities to leverage external resources to complement its own outreach.

8.6.2 Communication Objectives

Communication objectives during the various water shortage levels of the WSCP include the following:

- Motivate water users to quickly increase conservation in ways that are consistent with any voluntary or mandatory actions called for at the current level of the WSCP.
- Raise awareness and understanding of the drought, regulatory, or other condition affecting water supplies and the need for increased conservation.
- Minimize confusion and maintain regional consistency with conservation messages using an appropriate tone that preserves credibility and avoids noncompliance backlash.
- Make water users feel appreciated for existing accomplishments in improving their water-use efficiency, and for supporting regional and local investments in water supply reliability.
- Educate regional civic and business leaders, elected officials, and the public that the District, in conjunction with the Authority and its member agencies, has greatly improved its regional water supply reliability.
- Prepare the District for any potential escalation (or de-escalation) of the WSCP based on trending supply conditions.
- Ensure all stakeholders believe they are being treated fairly in relationship to other stakeholders.
- Maintain communication effectiveness by soliciting or monitoring feedback from member agencies, key stakeholders, and the general public to update or adapt messages or communication tools.
- Exit WSCP implementation having demonstrated the effectiveness and value of conservation actions and water supply reliability investments in minimizing impacts to the District's economy and quality of life.

8.6.3 Communication Channels

The District has developed various channels and means of implementing its communication to customers. The District may update its website, newsletters, envelope snipes, and direct mailers to reflect conditions and convey key messaging. The District may also provide press releases and host interviews or hold other events to announce or explain changes in conditions.

8.6.4 Communication Protocols for Current or Predicted Shortage

A current or predicted shortage, as determined by the annual assessment, will be communicated to the public upon submittal of the Annual Assessment Report in June of any given year.

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The existence of a water shortage response Level 1 condition may be declared by the general manager upon a written determination of the existence of the facts and circumstances supporting the determination. A copy of the written determination shall be filed with the board secretary and provided to the board of directors. The general manager may post in the lobby of the administration office and publish a notice of the determination of existence of drought response Level 1 condition in one or more newspapers, including a newspaper of general circulation within the District. The District may also post notice of the condition on its website.

The existence of water shortage response Level 2, Level 3, Level 4, Level 5, or Level 6 conditions may be declared by resolution of the District board of directors adopted at a regular or special public meeting held in accordance with state law. The mandatory conservation measures applicable to drought response Level 2, Level 3, Level 4, Level 5, or Level 6 conditions shall take effect on the tenth calendar day after the date the response level is declared. Within five days following the declaration of the response level, the District shall publish a notice of the resolution in a newspaper used for publication of official notices and post it on the District's website. If the District establishes a water allocation, it shall provide notice of the allocation by including it in the regular billing statement or by any other mailing to the address to which the District customarily mails the billing statement or fees or charges for ongoing water service. Water allocation shall be effective on the fifth calendar day following the date of mailing or at such later date as specified in the notice.

The existence of a water shortage response Level 6 condition may be declared in accordance with the procedures specified in California Water Code Sections 351 and 352. The mandatory conservation measures applicable to water shortage response Level 6 conditions shall take effect on the tenth day after the date the response level is declared. Within five days following the declaration of the response level, the District shall publish a notice of the resolution in a newspaper used for publication of official notices.

The District's board of directors may declare an end to a water shortage response levels 2 through 6 by the adoption of a resolution at any regular or special meeting held in accordance with state law.

8.6.5 Water Shortage Communications

To reduce water consumption during any water shortage level, the District will increase its public education and outreach efforts to build awareness of needed action from the public. In addition, the District's outreach campaign will be regularly revised to reflect current conditions. Key communication strategies and associated water shortage level implementation are listed below. Communication strategies built from previous levels are assumed to be built upon as the Shortage Level increases. Communication strategies by water shortage level may include, but are not limited to, the following:

8.6.5.1 Levels 1 and 2

- Announce status change to key stakeholders and the general public.
- Share regular updates to customers on conditions.
- Promote consistent regional messaging and conservation programs to customers in coordination with CWA and neighboring agencies.
- Engage with member agencies to develop a more serious campaign message that reflects the need for compliance with mandatory water-use restrictions (Level 2)
- Conduct briefings of shortage and restrictions to key civic and business leaders (Level 2)
- Provide conservation information and other support as necessary to government officials for their own media events, hearings, community meetings, etc.

- Send clear, consistent, and understandable messages regarding mandatory water-use restrictions in effect.
- Enhance media relations activities and social media communications related to water-use restrictions, conservation programs and drought conditions.
- Expand community engagement on drought campaign through bill inserts and website information.
- Enhance efforts to encourage customers to report incidents of water waste.
- Promote available resources to aid vulnerable populations.

8.6.5.2 Levels 3 and 4

- Announce status change to key stakeholders and the general public.
- Share regular updates to customers on conditions.
- Promote available water assistance resources for vulnerable populations.
- Work with member agencies to develop and share a more serious campaign message that reflects the need for higher level of extraordinary conservation.
- Initiate targeted outreach to major CII water users to help them identify, prepare for and, as much as possible, avoid negative impacts from extreme water conservation requirements.
- Promote compliance with specific, District-wide water-use restrictions.
- Provide specialized technical assistance sessions or resources to help homeowners achieve immediate reductions in water use while minimizing landscape damage.
- Consider providing specialized technical assistance to large landscape customers (HOAs, cities, schools, etc.) to help achieve large-scale reductions in discretionary outdoor water use.
- Conduct specialized outreach to industries (hospitality, car washes, restaurants, etc.) or other large-scale water users (schools, park, and recreation districts) that will likely experience impacts from emergency conservation to determine solutions for minimizing economic or quality of life impacts.

8.6.5.3 Levels 5 and 6

- Work with member agencies to develop campaign messages and tactics that raise awareness of the extreme shortage conditions facing the region and the likely need to focus water use on essential public health and safety needs.
- Announce status change to key stakeholders and the general public.
- Share regular updates to customers on conditions.
- Suspend promotion of long-term water use efficiency programs/tools to focus on imminent needs.
- Promote all available resources to aid vulnerable populations.
- Send clear, consistent, and understandable messages regarding what uses of water or levels of water use remain acceptable for residential, commercial, and public water users.
- Emphasize the need for all residents and businesses to work together to help the region successfully weather the situation.
- Coordinate with regional emergency response agencies/services on messaging/additional outreach tactics if needed.

8.6.6 Catastrophic Communications

In the event of a catastrophic supply interruption that requires water use to be quickly prioritized for or limited to essential public health and safety needs, the District will immediately deploy appropriate strategies from Water Shortage Levels 1 through 6. In addition, outreach messaging will reflect

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emergency conditions and the need to focus on health and public safety. Catastrophic communications strategies may include, but are not limited to, the following:

- Announce status change to key stakeholders and the general public.
- Provide regular update to stakeholders and the media on conditions.
- Implementation of any appropriate strategies and tactics from Levels 1-6
- Shift to messages that reflect emergency condition and need to focus water use on health/safety needs
- Provide joint news release/news events with public health officials to announce conditions and explain needed action.
- Ensure ongoing coordination with emergency response services.
- Send clear, consistent, and understandable messages regarding what uses of water or levels of water use remain acceptable for residential, commercial and public water users, and the expected duration of this restricted level of water use.
- Conduct specialized outreach to landscape and related industries with significant outdoor water use to urge immediate end to landscape water use.

8.7 Compliance and Enforcement

The District's inclining block rate structure contains two or three different prices for water used in different quantities. The highest rate is called "High Water Usage" and is priced to discourage water used in quantities subject to these rates.

Contained within the District's Rules and Regulations are penalties or charges for violations of the water use restrictions during water shortage conditions. An increasing level of fines is levied for up to four violations at the same address. Any subsequent violations at the same address will result in appropriate limitation of service by use of a flow restrictor or discontinuance of service.

The District Policy 10.1-12 of the WSCP lists violations and penalties as follows:

(a) Any person, who uses, causes to be used, or permits the use of water in violation of this policy is guilty of an offense punishable as provided herein.

(b) Each day that a violation of this policy occurs is a separate offense.

(c) Administrative fines may be levied for each violation of a provision of this policy as follows:

1. A warning for a first violation.
2. One hundred dollars for a second violation.
3. Two hundred dollars for a third violation of any provision of this policy within one year.
4. Five hundred dollars for each additional violation of this policy within one year.

(d) Violation of a provision of this policy is subject to enforcement through installation of a flow-restricting device in the meter.

(e) Each violation of this policy may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding $1,000, or by both as provided in Water Code section 377.

(f) Willful violations of the mandatory conservation measures and water use restrictions as set forth in Section 7.0 and applicable during a Level 4 condition may be enforced by discontinuing service to the property at which the violation occurs as provided by Water Code section 356.

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(g) All remedies provided for herein shall be cumulative and not exclusive.

Procedures for notice, nonpayment and appeal of water shortage penalties, along with procedures for hardship variances, are outlined in the District's Water Shortage Response Policy and Procedures (Appendix L).

8.8 Legal Authority

The District has the legal authority to implement and enforce its WSCP. California Constitution Article X, Section 2 and Water Code Section 100 provide that water must be put to beneficial use, the waste or unreasonable use or unreasonable method of use of water shall be prevented, and the conservation of water is to be exercised with a view of the reasonable and beneficial use thereof in the interest of the people and the public welfare. Sections of Water Code Chapter 3 commencing with Section 350 of Division 1, provide the authority for the governing body of a water agency to declare a water shortage and to adopt and enforce water conservation restrictions. (Water Code §§ 350- 359, 375-378.0.)

If necessary, the District shall declare a water shortage emergency in accordance with Water Code Chapter 3 of Division 1. Once having declared a water shortage, the District is provided with broad powers to implement and enforce regulations and restrictions for managing a water shortage. For example: Water Code Section 375(a) provides:

> Notwithstanding any other provision of the law, any public entity which supplies water at retail or wholesale for the benefit of persons within the service area or area of jurisdiction of the public entity may, by ordinance or resolution adopted by a majority of the members of the governing body after holding a public hearing upon notice and making appropriate findings of necessity for the adoption of a water conservation program, adopt and enforce a water conservation program to reduce the quantity of water used by those persons for the purpose of conserving the water supplies of the public entity.

(Water Code Section 375(a).) CWC Section 375(b) grants the District with the authority to set prices to encourage water conservation. Under California law, including CWC Chapters 3.3 and 3.5 of Division 1, Parts 2.55 and 2.6 of Division 6, Division 13, and Article X, Section 2 of the California Constitution, the District is authorized to implement the water shortage actions outlined in this WSCP. In water shortage cases, shortage response actions to be implemented will be at the discretion of the District and will be based on an assessment of the supply shortage, customer response, and need for demand reductions as outlined in this WSCP and the District's adopted Water Shortage Response Policy and Procedure. The District has included a copy its Water Shortage Response Policy and Procedure in Appendix L.

It is noted that upon proclamation by the governor of a state of emergency under the California Emergency Services Act (Chapter 7 (commencing with Section 8550) of Division 1 of Title 2 of the Government Code) based on drought conditions, the state will defer to implementation of locally adopted water shortage contingency plans to the extent practicable. The District will coordinate with regional and local water suppliers for which it provides water supply services for possible proclamation of a local emergency as necessary under California Government Code, California Emergency Services Act (Article 2, Section 8558).

8.9 Financial Consequences of WSCP

The Act requires that water suppliers prepare a shortage contingency analysis to address the impacts on revenue and expenditures when water shortages occur. The District completed an analysis of financial impacts and methods to mitigate the effects of reduced revenues as a result of severe water shortages of various levels of severity. High Usage water tiers would be implemented and added or adjusted to balance revenues and expenditures by drought stages ranging from 10%to 50% reduced water supply.

Initially, drought conditions may result in increased usage and water sales revenue as outdoor water use increases due to higher temperatures and below average rainfall. Severe or prolonged drought conditions could decrease water availability and cause usage to be curtailed resulting in a reduction of the District's water sales revenues.

With the decreased usage during severe drought conditions, water purchase expenses, pumping expenses, and water treatment costs would decrease by a corresponding amount. Other operating expenses, such as administrative expenses, would be relatively unaffected unless specific actions are taken to reduce staff and or services.

The District relies on water sales revenue to cover operating expenses. A shortfall in water sales could be covered by increasing of water use tiers and increases water rates and by reserve fund balances in the short term. The District has a rate stabilization reserve fund along with general reserve funds that could be utilized to cover operating expenses. However, in severe drought situations where the offset of reserve fund balances and acceptable rate increases are not enough to cover operating expenses, the nonessential operating expenses may need to be cut back in order to offset lower revenues.

8.10 Monitoring and Reporting

The District monitors how effective the combination of water shortage response actions in each water shortage level is with meters. All residential, commercial, and irrigation customer accounts are metered. During times of declared water shortages under the District's Water Shortage Response Policy and Procedure, the District will review the metered billing data and compare this data with water billing data in prior months and during non-shortage years to determine if demand is being reduced. If the needed percent reductions are not being met, the District can implement additional shortage response actions. The District will be required to report its annual supply and demand to the state in the annual assessment report, due June 1 of each year starting in 2022. Additionally, the District reports total monthly production to the State Water Resources Control Board as originally required by Governor Brown's Executive Orders B-29-15 and B-36-15.

The District has a 24-hour telemetry system, installed in 1992 and updated to utilize current technology, which monitors the water flows in the distribution system, pump stations, and reservoirs (water storage tanks), as well as control valve settings on the turnouts. If any difficulties or questions of accuracy develop in the telemetry monitoring of the District's facilities, due to power outages, etc., crews will be dispatched at least twice a day to take manual readings. During emergencies, or 50% supply cutbacks, the reservoir levels will be reported to the General Manager on a daily basis.

8.11 Special Water Feature Distinction

Per Water Code Section 10632(b), for purposes of developing a WSCP pursuant to subdivision (a), an urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

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The District's demand reduction measures clearly define water features subject to restrictions to only include ornamental fountains, ornamental lakes, and ornamental ponds. Refer to Section 8.5.

8.12 Plan Adoption and Implementation

The District's adoption, submittal, and implementation of its WSCP is completed in a transparent manner that is accessible to all interested parties, including its customers, local government agencies and their employees, as well as proactive coordination with neighboring water agencies. Transparency is important for a successful operation and planning of our local, regional and state water resources.

In most cases, the District notices, adopts, submits and makes available its WSCP in conjunction with its UWMP every five years and follows the processes and schedule outlined in Chapter 10 of the District's UWMP. However, the WSCP may be periodically amended independently of the UWMP as needed. The District will adhere to the following steps for adoption, submittal and availability when independently amending the WSCP.

- Staff reviews WSCP and proposed amendments based on analysis
- Provide legally required notice to public, cities, and counties
- Public Hearing & Board Adoption, Implement
- Submit to Department of Water Resources
- Publish WSCP on website and notify customers via existing print/digital outreach channels

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RESOLUTION NO. 26-03

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE LAKESIDE WATER DISTRICT
ADOPTING THE URBAN WATER MANAGEMENT PLAN

WHEREAS, The Urban Water Management Planning Act (Water Code Section 10610 et. seq.) requires every urban water supplier, as defined in the act, to prepare and adopt an urban management plan; and

WHEREAS, the Lakeside Water District is an urban water supplier within the meaning of the act; and

WHEREAS, in cooperation with the San Diego County Water Authority, the District has drafted such a plan, a public hearing thereon following publication within the jurisdiction of the District of a notice of the time and place of the hearing pursuant to section 6066 of the Government Code; and

WHEREAS, it is in the interest of the District to adopt an urban water management plan;

NOW, THERFORE, IT IS HEREBY RESOLVED, DETERMINED AND ORDERED by the Board of Directors of the Lakeside Water District as follows:

1. That the URBAN WATER MANAGEMENT PLAN FOR THE LAKESIDE WATER DISTRICT, 2025, be and it is approved and adopted as the plan required by the Urban Water Management Planning Act.

2. That the District shall implement its plan in accordance with the schedule set forth in the plan.

3. That the Secretary of the District be and he is hereby authorized and directed to file with the Department of Water Resources of the State of California a copy of the District's plan no later than 30 days after its adoption.

PASSED AND ADOPTED at a regular adjourned meeting of the Board of Directors of the Lakeside Water District held on June 2, 2026, by the following vote to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Eileen Neumeister, President
Board of Directors

_____
Brett Sanders, Secretary
Lakeside Water District

RESOLUTION NO. 26-04

RESOLUTION OF THE BOARD OF DIRECTORS OF THE LAKESIDE WATER DISTRICT ADOPTING THE WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the California Water Code Section 10632 requires every urban water supplier shall prepare and adopt a Water Shortage Contingency Plan (WSCP) as part of its Urban Water Management Plan (UWMP); and

WHEREAS, the Lakeside Water District is an urban supplier of water providing water; and

WHEREAS, the Lakeside Water District has prepared and adopted a UWMP under separate Resolution No. 2026-03; and

WHEREAS, State Senate Bill 606 passed in 2018 has amended the Water Code related to the requirements of WSCPs to include six standard stages for water shortages up to and beyond 50 percent; and

WHEREAS, the Lakeside Water District has updated its WSCP in accordance with these changes in the Water Code, and said WSCP is included as part of the UWMP; and

WHEREAS, the conservation of water is critically important if the Lakeside Water District is to sustain itself; and the effective and equitable management of limited water supplies during a water shortage minimizes the impact on the people and the economy of the community of Lakeside; and

WHEREAS, the City of Banning is granted the authority by the State Water Code Section 350 and District's administrative code to declare a water supply shortage and to adopt by resolution regulations and restrictions on the delivery and consumption of water; and

WHEREAS, the Lakeside Water District has therefore, prepared and circulated for public review a draft UWMP, and a properly noticed public hearing regarding said UWMP, held by the Lakeside Water District on June 2, 2026, wherein the WSCP was also presented in the public hearing, and

WHEREAS, the Lakeside Water District shall file said WSCP with the California Department of Water Resources within 30 days of adoption; and

WHEREAS, the Lakeside Water District, an urban water supplier, shall make available the WSCP prepared pursuant to this article to its customers and any city or county within which it provides water supplies no later than 30 days after adoption of the WSCP.

NOW, THEREFORE, IT IS HERBY RESOLVED, DETERMINED AND ORDERED by the Board of Directors of the Lakeside Water District as follows:

1. The Lakeside Water District is in conformance with all applicable requirements of the Water Code.

2. This resolution shall be in full force and effect immediately upon its passage and adoption thereof.

3. The Secretary of the District be and he is hereby authorized and directed to submit the WSCP along with UWMP to the California Department of Water Resources within 30 days after adoption of this resolution.

PASSED AND ADOPTED at a regular adjourned meeting of the Board of Directors of the Lakeside Water District held on June 2, 2026, by the following vote to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Eileen Neumeister, President
Board of Directors

_____
Brett Sanders, Secretary
Lakeside Water District

LAKESIDE WATER DISTRICT

BOARD REPORT

TO: Board of Directors

FROM: Brett Sanders, General Manager

DATE: June 2, 2026

SUBJECT: Consideration of Resolution 26-05 to Approve the Low Bid for the Yerba Valley Annexation Pipeline Project-Private Customer Lines

Recommendation:

The board to accept the bid by Narrow Path Engineering Inc. in the amount of $513,324 and approve Resolution 26-05 directing the Board Secretary/General Manager to execute contract documents on behalf of the District.

Alternative:

Reject all bids and do not approve Resolution 26-05, and re-advertise for construction bids as soon as possible.

Background:

The Yerba Valley Annexation Pipeline Project Private Customer Lines Project involves approximately 5,500 L.F. trenching and 19,500 L.F. of 2” PVC pipe installation within a common private property roadway easement with individual utility rights serving 17 properties, projected to be funded by District financing.

This project was separated from the water main project because of prior requirements of the USDA funding criteria that all funded projects shall be under public agency ownership. This could not happen in this situation with numerous property’s having individual utility access rights and the District’s position that we do not own customer lines from the meter to the house. This requirement required the separation of the pipeline work. To keep the project on track for a timely completion, the split pipeline work remains in place.

The project was first bid in March 2026 and the Board rejected all bids at the April 7, 2026 meeting due to the lack of bidders and the high cost of the bids, well above the budget for the project. A second bid was scheduled for May 21, 2026.

Discussion:

The estimate for this project was $353,126 and was based on the District's estimation of time, material and the scope of the job. The district received five bids ranging from $513,324 to $2,027,426.

A Notice Inviting Bids was advertised on April 10th, 2026 with a pre-bid meeting held on May 7, 2026. There were six attendees at the pre-bid conference. The advertised construction cost was $353,126. The District received five bids with the apparent low bid from Narrow Path Engineering in the amount of $513,324, which is $160,198 higher than the advertised construction cost. Our evaluation of the bid compared to our projected costs showed higher costs trenching, pipe installation, backfill and paving.

Fiscal Impact:

This project is to be paid for by the Community Facilities District 2022-1, formed by the property owners and the District. The apparent low bid is approximately $222,796 below the second lowest bid. A third bidding of the project is not likely to bring a lower bid total and may risk an even higher bid. The District budgeted $450,000 for the pipeline project, which includes legal and engineering this is low for this fiscal year, but the project will carry over to the 2026-27 fiscal year budget and will be evaluated for a cost carryover based on expenditures up until 6-30-2026.

BOARD OF DIRECTORS:
FRANK I. HILLIKER
PETE JENKINS
STEVE JOHNSON
EILEEN NEUMEISTER
STEVE ROBAK

LAKESIDE WATER DISTRICT

BRETT SANDERS
GENERAL MANAGER

ADRIANA OCHOA
ATTORNEY

DEXTER WILSON
ENGINEER

SUMMARY OF BIDS

For the

YERBA VALLEY ANNEXATION PIPELINE PROJECT PRIVATE CUSTOMER LINES

(Preliminary Apparent Bid Submittals)

May 21, 2026

Narrow Path Engineering	$ 513,324
A.B. Hashmi	$ 736,120
TC Construction Inc.	$ 755,832
A.M. Ortega Const.	$ 996,157
Kyne Construction	$2,027,426

10375 VINE STREET, LAKESIDE, CA 92040
(619) 443-3805 FAX (619) 443-3690

RESOLUTION NO. 26-05

RESOLUTION OF THE BOARD OF DIRECTORS OF THE LAKESIDE WATER DISTRICT AWARDING CONTRACT FOR THE YERBA VALLEY ANNEXATION PIPELINE PROJECT – PRIVATE CUSTOMER LINES

WHEREAS, by Motion the Board of Directors approved plans and specifications for the Yerba Valley Annexation Pipeline Project – Private Customer Lines.

WHEREAS, pursuant to said Motion the District called for the submission of the bids for said project in accordance with said plans and specifications; and

WHEREAS, at the time fixed for the opening of said bids, all bids that had theretofore been received were opened and publicly read aloud. Narrow Path Engineering Incorporated was deemed to have submitted the apparent low bid.

WHEREAS, it is in the best interest of the District to accept the lowest responsible bid.

NOW, THEREFORE, IT IS HEREBY RESOLVED, DETERMINED, AND ORDERD by the Board of Directors of Lakeside Water District as follows:

1. That the bid by Narrow Path Engineering Inc. in the amount of $513,324 for the labor, equipment and materials for the Yerba Valley Annexation Pipeline Project – Private Customer Lines, represented the lowest responsible bid and it hereby is accepted on the conditions hereinafter stated.
2. That the acceptance of this bid if further conditioned upon the execution of the contract, the delivery of the certificates referred to therein, and the furnishing of bonds of faithful performance and for payment of all persons performing labor or furnishing material in connection therewith, all as provided in the contract documents.

3. That upon fulfillment of the conditions prescribed in Part 2 thereof, the General Manager be and he hereby is authorized and directed to notify said contractor of the action of the Board.
4. That the President or Secretary be and they hereby are authorized and directed to execute said contract of behalf of the Lakeside Water District with Narrow Path Engineering Inc. at such time as the conditions contained in this resolution and in the billing and contract documents have been complied with by said contractor.
5. That upon final approval and execution of said contract, the General Manager is hereby authorized to send to said contractor a written notice to proceed, directing said contractor to commence work upon said project.

PASSED AND ADOPTED at a regular meeting of the Board of Directors of the Lakeside Water District held on June 2, 2026 by the following vote to wit:

AYES:

NOES:

ABSTAIN:

ABSENT:

Attest:

_____	_____
Brett Sanders, Secretary Lakeside Water District	Eileen Neumeister, President Board of Directors

OPERATIONS REPORT
June 2026
BOARD OF DIRECTORS MEETING

General Operation:

- *EOS Building updates*
- *Tank site and Pump Station Landscaping*
- *Preventative Maintenance on Pumps, Motors, and Control Valves*
- *Looking to hire 0ne part-time meter reader*
- *Looking to hire two new full-time employees*

Contractor/ Developer/ County Projects:

- *River Street-City of San Diego job*

District Emergencies Repairs:

- *Main breaks 0*
- *Service leaks 2 Katie Ln*
- *Fire hydrants 0*

LAKESIDE WATER DISTRICT
5 YEAR CAPITAL IMPROVEMENT PLAN

2026/27 through 2030/31
Draft Presentation to Board
June 2026
Exhibit A

C=Complete IP=In Progress AC=Annual Capital MT=Moved To MF=Moved From A=Annual
Moved From Moved To Bring In New Carryover Engineering Only

2025/2026	(Current Fiscal Year for Reference) **Total**	**$ 789,000**
Administration Office Board Room Expansion Project		$ 195,000
Yerba Valley Annexation Pipeline Installation		$ 450,000
Julian Ave. Multiple Pipe Replacement (Los Coches Rd. to Lakeview Rd.) (Engineering)		$ 20,000
Rocoso Rd. Pipe Replacement Engineering		$ 20,000
SCADA Telemetry Upgrades		$ 30,000
Buildings & Land Improvements		$ 4,000
O & M Equipment	(Replacement Construction Equipment)	$ 10,000
Office Furniture & Equipment		$ 15,000
Plant & Distribution	(Miscellaneous System Upgrades)	$ 30,000
New Service & Meters		$ 10,000
CIP Design and Engineering		$ 5,000

2026/2027	**Total**	**$1,869,000**
~~Operations, Engineering and Security Management Bldg.~~	~~(Remove)~~	~~$ 50,000~~
Single Oak Pump Station Rehabilitation (Built 1972) (Engineering)		$ 20,000
Yerba Valley Annexation Pipeline Installation	(Carryover + add)	$ 600,000
Julian Ave. Multiple Pipe Replacement (Los Coches Rd. to Lakeview Rd.)	(Two-year project, first year)	$1,100,000

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Vehicle Replacement (Truck 4 – ¼ tn. Service Truck) (Sport Trac)	$ 75,000
Buildings & Land Improvements	$ 4,000
O & M Equipment (Replacement Construction Equipment)	$ 10,000
Office Furniture & Equipment	$ 15,000
Plant & Distribution (Miscellaneous System Upgrades)	$ 30,000
New Service & Meters	$ 10,000
CIP Design and Engineering	$ 5,000
2027/2028 Total	**$1,609,000**
Julian Ave. (Los Coches to Lakeview) (Multiple Pipe Consolidation) (Two year project, second year)	$1,100,000
Single Oak Pump Station Piping and Pump Upgrade (Built 1972)	$ 225,000
Vine Street Well 9 (Engineering)	$ 45,000
Casa Vista Pipeline Repl. Consolidate and Extend (Move from 2030-31)	$ 90,000MF
Vehicle Replacement (Service Truck)	$ 75,000
Buildings & Land Improvements	$ 4,000
O & M Equipment (Replacement Construction Equipment)	$ 10,000
Office Furniture & Equipment	$ 15,000
Plant & Distribution (Miscellaneous System Upgrades)	$ 30,000
New Service & Meters	$ 10,000
CIP Design and Engineering	$ 5,000
2028/2029 Total	**$ 2,224,000**
Vine Street Well 9 Construction Project (New)	$1,100,000
El Monte Reservoir Tank Rehabilitation Built in 1960	$ 950,000
Single Oak Reservoir Rehabilitation 1996 (Rehab) (Engineering) (Moved from 2026/27)	$ 20,000

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Johnson Lake Pump Station Rehab. (Built in 1972) (Engineering) (Moved from 2023/24)	$	20,000
Wintergardens Pump Station Rehabilitation (Built 1981) (Engineering)	$	20,000
Buildings & Land Improvements	$	4,000
Vehicle Replacement (Service Truck)	$	40,000
O & M Equipment (Replacement Construction Equipment)	$	10,000
Office Furniture & Equipment	$	15,000
Plant & Distribution (Miscellaneous System Upgrades)	$	30,000
New Service & Meters	$	10,000
CIP Design and Engineering	$	5,000

2029/2030	**Total**	**$ 1,545,000**
Wintergardens Pump Station Rehabilitation (Built 1981) (Rehab) (NEW)	$	450,000
Johnson Lake Pump Station Rehab. (Built in 1972) (Rehab) (Moved from 2023/24)	$	476,000
Single Oak Reservoir Rehabilitation Last Rehab 1998 (Moved from 2026/27)	$	450,000
Valle Vista Reservoir Rehabilitation Last Rehab 2003 (Engineering) (NEW)	$	35,000
Lakeshore Drive Pipeline Repl. (Vine St. to Lakeview Rd.) (Engineering)	$	20,000
Buildings & Land Improvements	$	4,000
Vehicle Replacement (Service Truck)	$	40,000
O & M Equipment (Replacement Construction Equipment)	$	10,000
Office Furniture & Equipment	$	15,000
Plant & Distribution (Miscellaneous System Upgrades)	$	30,000
New Service & Meters	$	10,000
CIP Design and Engineering	$	5,000

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2030/2031	**Total**		**$ 1,714,000**
Lakeshore Drive Pipeline Repl. (Vine St. to Lakeview Rd.)			$ 800,000
Valle Vista Reservoir Rehabilitation	2003 (Rehab)	(NEW)	$ 800,000
Buildings & Land Improvements			$ 4,000
Vehicle Replacement	(Service Truck)		$ 40,000
O & M Equipment	(Replacement Construction Equipment)		$ 10,000
Office Furniture & Equipment			$ 15,000
Plant & Distribution	(Miscellaneous System Upgrades)		$ 30,000
New Service & Meters			$ 10,000
CIP Design and Engineering			$ 5,000

INFORMATION BELOW WILL NOT BE INCLUDED IN 5 YEAR CIP RESOLUTION

2031 - 2066 CAPITAL IMPROVEMENT PROJECTION

2031/32 – 2036/37

Pipeline Replacements	$4,760,000
Lakeshore Dr. Pipeline Repl. Vine St. to Lakeview Dr.	$2,300,000
Los Coches Main Extension (Los Coches Rd. to 9623 Los Coches Rd.)	$ 110,000
Wintergardens Blvd. at Woodside Ave. Pipeline Interconnection (Increase flow capability and connection clean-up)	$ 275,000
Rocoso Road (Euc Hills Drive to No. end) (Moved from 2023/2024)	$1,600,000MF
Willow Road Pipeline Upsize Project (Moved from 2022/23)	$ 475,000MF

Pump Station Upgrades	$2,100,000
Highway 67 Pump Station -	1977 (Built)
El Monte Pump Station –	1977 (Built)
Emerald Grove Pump Station –	1975 (Built)
Riverview Emergency #1 –	1972 (Built)

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Reservoir Recoating's/Rehabilitations		$4,000,000

Steel:

Lakeside Ave Reservoir	Built 1977 Last Rehab 2017 Coating & Access
Sky Rim Reservoir	Built 2002 Last Rehab NA
Johnson Lake Reservoir	Built 1960 Last Rehab 2023 Coating/Vent/2017
El Monte Reservoir	Built 1960 Last Rehab 1997
Single Oak Reservoir	Built 1966 Last Rehab 1998 Coating/Vent 2017
Valle Vista Reservoir #1	Built 1966 Last Rehab 2003 Coating/Vent 2017
Valle Vista Reservoir #2	Built 2003 Last Rehab 2014
High Meadow Ranch Reservoir	Built 2006 Last Rehab NA

Concrete:

Gay Rio Reservoir	Built 1968/ Seismic and Roof Upgrade 2017
Poteet Reservoir	Built 1975/ Roof RPL 2012
Sherman Reservoir	Built 1962/ Seismic Upgrade 2008/Roof 2022

Special Projects		$4,000,000
Riverview Well Field Well and Treatment Project		$4,000,000
Continuous Capital Replacement		$3,000,000
Vehicle Replacement	Service Truck Replacement (Electric Vehicle Mandate)	$ 150,000
Vehicle Replacement	#20 Dump Truck, Vacuum Trucks (Electric Vehicle Mandates)	$ 225,000
Buildings & Land Improvements		$ 20,000
O & M Equipment	(Replacement Construction Equipment)	$ 50,000
Office Equipment		$ 40,000
Plant & Distribution	(Miscellaneous System Upgrades)	$ 160,000
New Service & Meters		$ 50,000
CIP Design and Engineering		$ 25,000

2036/37 – 2041/42 Overview

Pipeline Replacements		$7,500,000
Pump Station Upgrades		$1,900,000
Amato Pump Station –	1985 (New)	
Reservoir Recoatings/Rehabilitations		

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Steel:

Lakeside Ave Reservoir	Built 1977 Last Rehab 2017 Coating & Access
Sky Rim Reservoir	Built 2002 Last Rehab NA
Johnson Lake Reservoir	Built 1960 Last Rehab 2023 Coating/Vent/2017
El Monte Reservoir	Built 1960 Last Rehab 1997
Single Oak Reservoir	Built 1966 Last Rehab 1998 Coating/Vent 2017
Valle Vista Reservoir #1	Built 1966 Last Rehab 2003 Coating/Vent 2017
Valle Vista Reservoir #2	Built 2003 Last Rehab 2014
High Meadow Ranch Reservoir	Built 2006 Last Rehab NA

Concrete:

Gay Rio Reservoir	Built 1968/ Seismic and Roof Upgrade 2017
Poteet Reservoir	Built 1975/ Roof RPL 2012
Sherman Reservoir	Built 1962/ Seismic Upgrade 2008/Roof 2022

Vine St. Filter #1	Filter Media replacement	Last Done 2013	$ 55,000
Vine St. Filter #2	Filter Media replacement	Last Done 2014	$ 55,000
Vehicle Replacement			$ 150,000
Backhoe Replacement			$ 140,000
Buildings & Land Improvements			$ 20,000
O & M Equipment	(Replacement Construction Equipment)		$ 50,000
Office Equipment			$ 20,000
Plant & Distribution	(Miscellaneous System Upgrades)		$ 160,000
New Service & Meters			$ 50,000
CIP Design and Engineering			$ 25,000

2041/42 – 2046/47 Projection

Pipeline Replacements	$7,500,000

Pump Station Replacements
Gay Rio Pump Station Last Rehab 2019

Reservoir Recoatings and Rehabilitations

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Steel:

Lakeside Ave Reservoir	Built 1977 Last Rehab	2017
Sky Rim Reservoir	Built 2002 Last Rehab	NA
Johnson Lake Reservoir Last	Built 1960 Last Rehab	2023
El Monte Reservoir	Built 1960 Last Rehab	1997
Single Oak Reservoir	Built 1966 Last Rehab	1998
Valle Vista Reservoir #1	Built 1966 Last Rehab	2003
Valle Vista Reservoir #2	Built 2003 Last Rehab	2014
High Meadow Ranch Reservoir	Built 2006 Last Rehab	NA

Concrete:

Gay Rio Reservoir	Built 1968/ Seismic and Roof Upgrade 2017
Poteet Reservoir	Built 1975/ Roof RPL 2012
Sherman Reservoir	Built 1962/ Seismic Upgrade 2008/Roof 2022

Building Repair and Replacement

2046/47 – 2051/52 Projection

Pipeline Replacements	$7,500,000
Pump Station Upgrades	$1,900,000

Reservoir Recoatings/Rehabilitations

Steel:	Lakeside Ave Reservoir	Built 1977 Last Rehab	2017
	Sky Rim Reservoir	Built 2002 Last Rehab	NA
	Johnson Lake Reservoir Last	Built 1960 Last Rehab	2023
	El Monte Reservoir	Built 1960 Last Rehab	1997
	Single Oak Reservoir	Built 1966 Last Rehab	1998
	Valle Vista Reservoir #1	Built 1966 Last Rehab	2003
	Valle Vista Reservoir #2	Built 2003 Last Rehab	2014
	High Meadow Ranch Reservoir	Built 2006 Last Rehab	NA

Concrete:

Gay Rio Reservoir	Built 1968/ Seismic and Roof Upgrade 2017
Poteet Reservoir	Built 1975/ Roof Upgrade 2012
Sherman Reservoir	Built 1962/ Seismic Upgrade 2008/Roof 2022

2056-2067 Projection

Reservoir Recoatings/Rehabilitations

Steel:	Lakeside Ave Reservoir	Built 1977 Last Rehab
	Sky Rim Reservoir	Built 2002 Last Rehab
	Johnson Lake Reservoir Last	Built 1960 Last Rehab
	El Monte Reservoir	Built 1960 Last Rehab
	Single Oak Reservoir	Built 1966 Last Rehab
	Valle Vista Reservoir #1	Built 1966 Last Rehab

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Valle Vista Reservoir #2	Built 2003 Last Rehab
High Meadow Ranch Reservoir	Built 2006 Last Rehab

Concrete:

Gay Rio Reservoir	Built 1968/ Seismic and Roof Upgrade 2017
Poteet Reservoir	Built 1975/ Roof RPL 2012
Sherman Reservoir	Built 1962/ Seismic Upgrade 2008/Roof 2022

Pump Station Upgrades

Poteet Hydropneumatic Pump Station	Built 2006
High Meadow Ranch Pump Station	Built 2007

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Lakeside Water District

Disbursements List

May 2026

Num	Name	Account	Original Amount
17814	ALANEY, ABD. MOHAMMED	4000 · Water Sales on Account	70.12
17815	BECKER, DILLON	4000 · Water Sales on Account	166.81
17816	CAREY, PATRICK	4000 · Water Sales on Account	31.48
17817	DICKERSON, ETHAN	4000 · Water Sales on Account	70.12
17818	GIRARD, SAVANNAH	4000 · Water Sales on Account	24.23
17819	HARRIS, DANIELLE	4000 · Water Sales on Account	49.63
17820	HENNESY, CAROL	4000 · Water Sales on Account	166.81
17821	Henning, Larry	4000 · Water Sales on Account	93.47
17822	KLOCK, CHRISTOPHER & JESSICA	4000 · Water Sales on Account	147.76
17823	MOORE, THOMAS	4000 · Water Sales on Account	114.93
17824	REYES, MARIO	4000 · Water Sales on Account	61.22
17825	SOLIS, CHELSEA	4000 · Water Sales on Account	75.03
17826	VARGAS, MARY	4000 · Water Sales on Account	75.03
17827	VONBADINSKI, JOHN	4000 · Water Sales on Account	86.98
17828	WRIGHT, ROBYN	4000 · Water Sales on Account	114.57
17829	ACWA - Group Ins	7040 · Group Insurance	32,374.76
17830	America's Finest City Backflow Ser.	6400 · Outside Labor	235.00
17831	American Messaging	7400 · Office Expense	110.63
17832	Barone, Inc.	6200 · Trucks-Fuel,Maintenance,Repair	963.22
17833	Bee Removal Logics	6400 · Outside Labor	275.00
17834	Border Tire	6200 · Trucks-Fuel,Maintenance,Repair	38.78
17835	Core & Main, LP	6102 · Dist. Pump & Maint	98.77
17836	CrispImaging Inc.	1581 · Yerba Valley Annex. Pipeline	228.86
17837	Excel Telemessaging	7400 · Office Expense	433.83
17838	Ferguson Waterworks	Split	5,677.63
17839	Freedom Automation	5628 · Telemetry Repair	1,600.00
17840	Gregory Sheets, CPA	7230 · Consultants	1,275.00
17841	Harris Computer Systems	7440 · Dues & Subscriptions	12,234.83
17842	HASA	5200 · Water Treatment -Maint/Supplie	1,327.66
17843	Helix Water District	5080 · Water Treatment & Testing	807.00
17844	Heritage Landscape Supply	6110 · Emergency Repairs & Service	157.87
17845	Home Depot Credit Services	1520 · O & M Equipment	87.18
17846	Jan-Pro	7400 · Office Expense	360.00
17847	JM Integration, LLC	1580 · SCADA Telemetry Upgrade	4,111.14
17848	Knight Security & Fire Systems	Split	3,333.00
17849	Napa Auto Parts Inc	6200 · Trucks-Fuel,Maintenance,Repair	199.91
17850	Nossaman, LLP	1581 · Yerba Valley Annex. Pipeline	5,040.00
17851	Pacific Pipeline Supply, Inc.	6100 · Distribution - Maint/Supplies	10,441.82
17852	Payton's Ace Hardware, Inc.	**voided check	0.00
17853	Pollardwater.com	6102 · Dist. Pump & Maint	1,124.50
17854	PowerPlan	6200 · Trucks-Fuel,Maintenance,Repair	3,946.85
17855	Quadient - Maint	7400 · Office Expense	268.19
17856	Quadient - Postage	7400 · Office Expense	2,000.00
17857	Republic Services	6100 · Distribution - Maint/Supplies	903.12
17858	Snell & Wilmer	7210 · Attorney Fees	127.50
17859	Snipes-Dye Associates	6410 · Engineering	300.00
17860	Underground Service Alert	7440 · Dues & Subscriptions	145.45
17861	UniFirst Corp	6100 · Distribution - Maint/Supplies	407.16

17862	**Utility Cost Management, LLC**	5101 · UCM Savings Adjustment	22,161.39
17863	**Wave.Band**	7400 · Office Expense	946.91
17864	**Payton's Ace Hardware, Inc.**	Split	1,146.82
17865	**Superior Ready Mix Concrete**	1582 · Oper, Eng. & Security Bldg.	1,241.29
17866	**San Diego County Water Authority**	5091 · SDCWA Capacity & Treatment Fees	10,693.00
17867	**FedEx**	5080 · Water Treatment & Testing	141.74
17868	**A & B Saw & Lawnmower Shop**	6100 · Distribution - Maint/Supplies	66.63
17869	**Alpha Analytical Laboratories, Inc**	5080 · Water Treatment & Testing	508.00
17870	**Boot World, Inc.**	6100 · Distribution - Maint/Supplies	160.00
17871	**Border Tire**	6200 · Trucks-Fuel,Maintenance,Repair	505.08
17872	**Cintas First Aid & Safety**	6100 · Distribution - Maint/Supplies	1,131.86
17873	**City of San Diego-C**	5200 · Water Treatment -Maint/Supplie	2,603.00
17874	**Foxcroft Equipment & Service Inc.**	5200 · Water Treatment -Maint/Supplie	971.00
17875	**HASA**	5200 · Water Treatment -Maint/Supplie	985.03
17876	**Lakeside Equipment, Inc.**	1550 · Pumping Plant & Distribution	239.78
17877	**Lakeside Petroleum, Inc.**	6200 · Trucks-Fuel,Maintenance,Repair	3,448.52
17878	**Metropolitan Compounds, Inc.**	1520 · O & M Equipment	1,083.66
17879	**Napa Auto Parts Inc**	6200 · Trucks-Fuel,Maintenance,Repair	8.79
17880	**Omni Graphics**	7400 · Office Expense	371.35
17881	**Target River**	7400 · Office Expense	110.00
17882	**ULine**	6200 · Trucks-Fuel,Maintenance,Repair	201.61
17883	**UniFirst Corp**	6100 · Distribution - Maint/Supplies	436.29
17884	**United Site Service, Inc.**	6100 · Distribution - Maint/Supplies	114.90
17885	**WestAir**	6100 · Distribution - Maint/Supplies	178.29
17886	**West & Associates Engineering, Inc.**	7230 · Consultants	12,233.00
17887	****included in payroll**	Payroll Check	0.00
17888	**Standard Insurance**	7040 · Group Insurance	447.71
17889	**Variable Annuity Life Insurance**	2100 · Payroll Liabilities	4,533.44
eft	**First Bankcard - Visa**	First Bankcard	1,425.69
eft	**First Bankcard - Visa**	First Bankcard	1,188.11
eft	**First Bankcard - Visa**	First Bankcard	11,698.58
eft	**US Bank-Register**	7400 · Office Expense	169.27
eft	**US Bank-NSF**	1200 · Accounts Receivable	53.68
eft	**San Diego County Water Authority**	5000 · Water Purchases	743,719.00
eft	**InvoiceCloud Fee**	7400 · Office Expense	824.40
eft	**US Bank-Fees**	7400 · Office Expense	712.76
eft	**SDGE**	5100 · Electric Power	19,051.06
eft	**SDGE**	5100 · Electric Power	27.57
eft	**SDGE**	5100 · Electric Power	1,789.61
eft	**SDGE**	5100 · Electric Power	768.94
eft	**SDGE**	5100 · Electric Power	16.98
eft	**SDGE**	5100 · Electric Power	52.62
eft	**Verizon**	7400 · Office Expense	172.16
eft	**US Bank-NSF**	1200 · Accounts Receivable	136.32
eft	**Cal Pers**	2100 · Payroll Liabilities	6,694.26
eft	**Cal Pers**	7050 · CalPers Retirement	12,389.43
			959,542.38

General Managers

Quarterly Report – State of the District & Report of Capital Outlays and Expenses

June 2, 2026
Board of Directors Meeting

The top issues facing the District in the 3rd quarter of 2026 are;

1) Yerba Valley Annexation Pipeline Project and Funding

2) Lafco Hearing on Annexation for Turner Property on Oak Creek Dr.

3) 2026 Newsletter

Our Current Capital Outlays for fiscal year 2025/26 are for the following;

			Budget	%Complete
a.	Buildings & Land	$	4,000	124
b.	O & M Equipment	$	10,000	58
c.	Office Furniture & Equipment	$	15,000	50
d.	CIP Design/Engineering	$	5,000	305
e.	Pumping Plant & Distribution	$	30,000	103
f.	New Service/Meters	$	10,000	95
g.	SCADA Telemetry Upgrade	$	30,000	92
h.	Yerba Valley Annexation Pipeline	$	450,000	6
i.	Operations, Engineering & Security Bldg.	$	195,000	137
j.	Julian Ave. Multiple Pipe Replacement	$	20,000	73
k.	Rocoso Rd. Pipe Replacement Engineering	$	20,000	30
	Budget Total	$	789,000	
	Current Outlay	**$**	**415,773**	**53%**

News Articles/Editorials Enclosed:

Trump officials plan to repeal limits on PFAS

Could ocean desalination help solve Las Vegas supply

Trump officials plan to repeal limits on ‘forever chemicals’ in drinking water

EPA outlines effort to kill Biden-era rules as critics condemn RFK Jr and Lee Zeldin’s ‘hocus pocus’

Tom Perkins
Mon 18 May 2026 16.19 EDT
Prefer the Guardian on Google

The Trump administration has announced a plan to kill Biden-era drinking water limits on four Pfas “forever chemicals”, and to delay the implementation of standards for two other compounds.

The Environmental Protection Agency is proposing two separate rules to delay and rescind the limits. The rules must go through an approval process that can take several years, and almost certainly will be challenged in court.

The Trump administration’s plan comes just two years after the US Environmental Protection Agency set legally enforceable drinking water limits for six of the most dangerous Pfas compounds that have been studied. The chemicals include some of the most toxic substances, and are linked to a range of cancers and other serious health problems.

The new Trump plan aims to undo or delay those limits, which public health advocates say would put the nation’s health at risk. Pfas are ubiquitous in the environment and estimated to be contaminating drinking water for more than 200 million people across the US.

At the Monday press conference, the EPA administrator, Lee Zeldin, and US health secretary, Robert F Kennedy Jr, announced the new plan.

“The Trump EPA is committed to Make America Healthy Again by ensuring clean air, land, and water – and by taking on Pfas the right way, across the full life cycle and built to last,” Zeldin said in a statement.

PFAS are a class of at least 16,000 compounds most frequently used to make products water-, stain- and grease-resistant. They have been linked to cancer, birth defects, decreased immunity, high cholesterol, kidney disease and a range of other serious health problems. They are dubbed “forever chemicals” because they do not naturally break down in the environment.

Public health advocates in 2024 hailed “historic” limits that would dramatically improve the safety of the nation’s water, and the rules marked the first time in 27 years the EPA had put in place new drinking water limits for contaminants. But the move was fiercely opposed by industry, including those now in leadership positions at the EPA.

EPA officials said in 2024 that the limits would reduce Pfas exposure for 100 million people and help prevent thousands of illnesses, including fewer birth-weight related infant deaths, kidney-cancer deaths, bladder-cancer deaths and deaths from cardiovascular disease.

Public health advocates on Monday condemned the EPA.

“Zeldin and Kennedy are trying to sell potions out of the back of a covered wagon,” said Dr Anna Reade, director of Pfas advocacy at Natural Resources Defense Council. “The millions of Americans demanding safe drinking water are not going to fall for their hocus pocus.”

The move is widely viewed as at odds with Donald Trump’s pledge to eliminate toxic chemicals from drinking water.

Kennedy is a leader of the Make America Healthy Again (Maha) movement, of which eliminating toxic chemicals from food and water is a cornerstone. Maga and Maha have been at odds over the last year as the administration fails to follow through on many of its promises.

Kennedy defended the delay and rescission of the limits at the press conference.

“I’ve read articles in the corporate media that say we’re trying to roll back Pfas protections, but that’s not true,” Kennedy said. He said the administration was putting in place a “clean water mandate”.

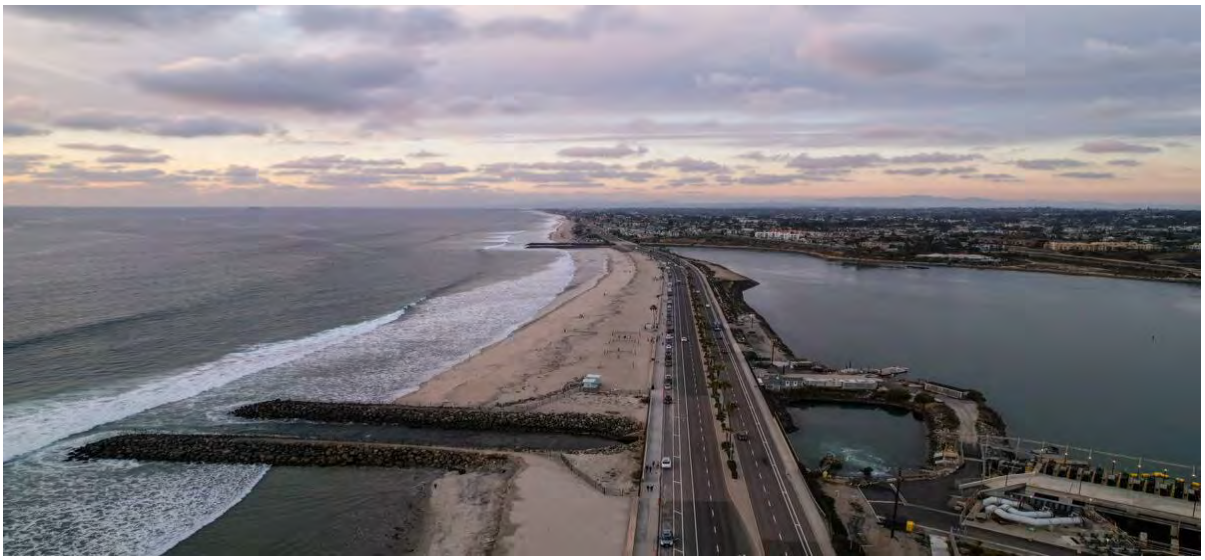
The agency in 2024 under Biden set limits of 10 parts per trillion (ppt) for any combination of three Pfas compounds, including PFNA, PfHxS, and HFPO dimer acid, more commonly called GenX. For any combination of those three compounds and PFBS, the agency set a variable limit.

The administration is proposing new rules to rescind those limits and alleged that Biden’s EPA did not follow the correct legal process, moved too quickly in developing the limits, and that the limits would not survive a court challenge. The Trump EPA will “redo” the process to determine if limits should be set for the four chemicals, which Kennedy alleged would save time by avoiding litigation.

EPA science showed that no level of exposure to Pfoa and Pfos in drinking water is safe, and the agency in 2022 set non-enforceable advisory health limits of 0.02 ppt and 0.004 ppt, respectively.

The Biden administration in 2024 set drinking water limits of four ppt for the two compounds, in part because that is the level at which technology can reliably detect them. The EPA said it would give utilities two extra years, until 2031, to comply with the standards.

Could ocean desalination help solve Las Vegas’ water woes? It might



Carlsbad desalination plant's intake lagoon is visible on the right and the discharge canal on the left, Dec. 2, 2025, in Carlsbad, Calif. (AP Photo/Annika Hammerschlag, File)

Reverse osmosis machinery operates at the Carlsbad desalination plant in Carlsbad, Calif., Dec. 2, 2025. (AP Photo/Annika Hammerschlag, File)

Southern Nevada is now looking to the Pacific Ocean to ease its water woes.

In a vote Thursday, the Southern Nevada Water Authority board approved a memorandum of understanding that allows General Manager John Entsminger to hammer out a first-of-its-kind water transfer deal with the San Diego County Water Authority. In a region where growth could outpace permanent water supplies in the next few decades, that matters.

The terms are far from certain. But California would leave water in Lake Mead that Nevada could use in exchange for compensation; California would fill that gap with ocean water treated by the Carlsbad Desalination Plant.

"It's a pellet of the silver buckshot, but it's not a silver bullet," said Entsminger, in a Monday interview.

However, if a contract materialized, it could revolutionize what water managers thought was possible, effectively adding permanent water to an arid region's portfolio amid what is on track to be the poorest runoff season on record in the Colorado River Basin.

How much water?

Entsminger declined to share how much water Southern Nevada could stand to gain, saying that the number could vary year to year depending on the changing water demands of San Diego County.

The annual capacity of the plant is 56,000 acre-feet per year, said Dan Denham, general manager of the San Diego County Water Authority, in an interview. Within existing permits, that figure could grow to 62,000 acre-feet per year if one of the interested states helps fund the plant's expansion, he said.

An acre-foot of water, roughly 351,850 gallons, is enough to serve two single-family homes for a year, by most estimates.

Nevada's full yearly allocation from the Colorado River — the smallest of any state — is 300,000 acre-feet. Last year, after cashing in credits from water recycling, Nevada's consumptive use came in at 198,000 acre-feet in total, a number that only represents water that wasn't returned to Lake Mead.

Under a current proposal from the Lower Basin states of Nevada, California and Arizona, the Las Vegas metro area could voluntarily give up at least 50,000 acre-feet or as much as 100,000 acre-feet of its water in both 2027 and 2028.

Denham said his agency is equipped to eventually pass off all of the plant's water via a water transfer if a deal surfaces, but the volume of water that could be included depends on several factors, including the length of the agreement. Arizona officials are in early talks to benefit from some of the water, too.

Negotiations shouldn't take more than a year, Denham estimates, though how current interstate talks go as the federal government prepares to intervene in a seven-state deadlock could dictate the speed.

"I don't think hydrology is going to wait; we can't wait for the next snowpack year," Denham said. "It has to happen faster. This is the test case."

About 60 percent of San Diego County's water supply comes from the Colorado River Aqueduct, a 242-mile pipeline that moves water from Lake Havasu to Southern California. As population growth has stagnated and even more supplies became available with an investment in water recycling, Denham said his region's supply now outweighs demand.

While the amount of water that could come from a desalination water transfer may seem small compared with California's larger 4.4-million acre-foot annual share of the river, Denham said it could have an outsized impact for Southern Nevada.

"Small amounts do make a difference to agencies of our size," Denham said.

Focus on water augmentation

The news of the potential deal comes at a time when the Trump administration has directed states to take inventory of possible water augmentation projects, or those that add water to the system, such as desalination.

Arizona negotiator Tom Buschatzke revealed at a public meeting this month that his state is working on a list of possibilities.

Simultaneously, the governors of the seven states have asked Interior Secretary Doug Burgum to release the remaining $550 million from the Inflation

Reduction Act — a 2022 law that represented the largest investment in climate change mitigation in U.S. history. The Trump administration has clawed back that funding, labeling it unnecessary spending.

The governors don't specify any one project it could fund but say the money is necessary to provide a buffer for state economies as they face operational changes.

Separately, a group of water users and nongovernmental organizations from across the Colorado River Basin sent a letter to Congress on May 13, calling for at least $2 billion in federal investment in drought relief.

Someone who has been one of the loudest advocates for desalination is Pat Mulroy, who served as the first general manager of the Southern Nevada Water Authority from the early '90s until 2014.

In an interview, Mulroy reiterated that conservation alone isn't enough. Banking water when it's available will become increasingly important, she added.

"We've become a one-trick pony, and that's not how we're going to solve the problem," she said.

Mulroy said that beyond funding, California-specific regulatory challenges and lawsuits are a hindrance to seeing more desalination through. Between 2006 and 2012, environmental groups such as the Surfrider Foundation filed multiple lawsuits and permit appeals, alleging harm to marine life and causing significant project delays.

The big price tag for building desalination plants shouldn't scare off water managers, Mulroy said. She pointed to the financing structure of the original Lake Mead intake for Southern Nevada, a 30-year loan.

Going forward, Mulroy said key considerations of the negotiation include figuring out cost and what levels of government must approve a final deal. Even if it ends up expensive, Mulroy contends that the days of cheap, new water supplies are gone.

"Our systems have to be flexible, and they have to be able to adapt," Mulroy said. "The only way they can is by having as many options for water resources as we can possibly get."

Southern Nevada hit with cease-and-desist

In a move Entsminger called puzzling, the memorandum has received pushback from some residents, namely the Water Fairness Coalition organization that has advocated against conservation measures that its members say are unfair and unequally applied.

The group sent officials a cease-and-desist letter, authored by Las Vegas attorney Sam Castor. He is leading two active lawsuits against the Southern Nevada Water Authority over its excessive use charges levied against residents and the implementation of a 2021 law outlawing the use of Colorado River water for decorative grass.

In the letter, Castor argues that the agency is acting outside of its legal authority, and instead the Colorado River Commission of Nevada would be the appropriate party to permit a deal, according to existing laws.

"If the SNWA Board authorizes Mr. Entsminger to execute the MOU and he uses that improper authority, the WFC will challenge that conduct in the courts and seek to invalidate it," he wrote.

Entsminger, during Thursday's board meeting, said he was confused by public comment from Castor and the coalition.

"Nothing in this MOU contemplates transferring any portion of Nevada's water rights to anyone else," Entsminger said. "I find it semi-ironic that a number of speakers said what we need to be doing is out there fighting to get more water. This is about getting more water."

Asked in a follow-up interview about why her organization is fighting against a desalination deal, coalition founder Laura McSwain said she is not opposed to the idea of the transfer.

Rather, McSwain said it's important to hold the agency to its charter and the legal framework of the 1922 Colorado River Compact. She believes much of the agency's punitive approach to conservation measures has been unlawful.

It shouldn't be an either-or situation, McSwain said, as to whether Nevada gets to keep the water it has while building in new supplies like the desalination water transfer. In her view, Entsminger should be more aggressive in asserting

that Nevada shouldn’t take voluntary cuts to its share of the river following decades of proactive conservation.

“(Entsminger) has been willing to negotiate away what I consider state assets,” McSwain said. “I want to make sure that the law is actually absolutely followed and the community has every opportunity for visibility to what is taking place.”