

A G E N D A

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

December 3, 2024

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 November 5, 2024.
7. Review the October 2024 Treasurers Report for the Annual Audit. Request to Note and File in Preparation.
8. Operations Report. Johnze
9. Consider Revisions to the Administrative Code Section 8.1-8 Sick Leave (A) Accrual and 8.1-9 Vacation (A) Accrual. Sanders
10. Presentation on the Capacity Fee and Annexation Fee Review Update for 2025. Sanders
11. Consider Board Meeting Calendar for 2025. Sanders
12. Approve Demands of the Treasurer for November 2024.
13. CWA Report
14. Director's Reports and/or Ad Hoc Sub-Committees Reports.
15. General Managers' Report.

16. Closed Session – Closed to the Public

Personnel Exception per Government Code Section 54957; Employee Performance Evaluation – General Manager

17. Adjourn; Next Regular Meeting Date January 7, 2024.

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 November 29, 2024, 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](https://www.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).

Brett Sanders, General Manager / Board Secretary

**MINUTES OF A REGULAR MEETING OF THE BOARD OF DIRECTORS OF THE
LAKESIDE WATER DISTRICT
HELD ON November 5, 2024**

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 Hilliker.
- 2) Prayer/Invocation – Director Johnson introduced Dr. Eric King to provide the prayer for the night's meeting.
- 3) Pledge of Allegiance – The pledge was led by Director Jenkins
- 4) Approval of Agenda. Motion by Director Robak to accept the agenda as submitted.

Motion: Robak

Second: Jenkins

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). No Comments.
- 6) Approve Minutes of a Regular Meeting held on October 8, 2024. Motion by Director Robak to approve the as presented.

Motion: Robak

Second: Neumeister

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

- 7) Review the September 2024 Treasurers Report for the Annual Audit. Request to Note and File in Preparation. Approved to Note and File
- 8) 20-Year Service Award for Robert McFadden the District's System Operation 3. General Manager Sanders provided a summary of Roberts career highlights and

valued attributes. The Board thanked Robert for his length of service, excellent skills and work ethic.

9) Operations Report. General Manager Sanders provided a summary of the following items.

- a. Johnson Lake Reservoir. Colon Coatings has completed warranty work as directed by Harper Engineering with the assistance of District crews, and is back in service.
- b. Winter Preparations. District crews have been making sure drains are clear and hatches are sealed, and pulling the jackets out.
- c. Cla-Valve Maintenance: The District hired out a specialized contractor to refurbish control valves at the Hwy 67, Wintergardens PS and Poteet PS.
- d. Pump Station Structures: Structure repairs have been done by District crews.
- e. AWP Pipeline Crossings and Inspections. Orion continues replacing District lines located in the Valle Vista at Lakeside Ave. intersection.
0 Mainbreak, 1 Service Leak (Chossier), 0 Fire Hydrants

10) Rescind Resolution 24-14 for the Pass-Through Adjustment to offset the wholesale rate increase from the San Diego County Water Authority and to declare the action exempt from the California Environmental Quality Act. Lakeside Water District Administrative Code 2.13-2(B)(2)(a), Approved at the September 10, 2024 Board of Director's meeting. General Manager Sanders summarized the process of the pass through increase and the calculation used to make the determination of the \$0.68 per unit wholesale pass through increase for 2025.

Motion: Robak

Second: Jenkins

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

11) Consider Resolution 24-14a for the Pass-Through Adjustment to offset the wholesale rate increase from the San Diego County Water Authority and to declare the action exempt from the California Environmental Quality Act. Lakeside Water District Administrative Code 2.13-2(B)(2)(a). General Manager Sanders provided a review of a revised schedule of a proposed pass-through increase, with a final pass-through approval to recover a \$954,504 CWA increase for 2025. Approved "Exhibit A Alternate" that divided up Pass-Through increase. CWA water charge \$0.46 per unit added to the fixed charge increase as a base charge increase that equals \$7.45 for our 5/8" and 3/4" meter sizes, increased by our meter delivery ratio schedule to larger meter sizes. Renamed "Exhibit A Alternate" to "Exhibit A". Change date to November 5, 2024. Motion by Director Robak to approve the Resolution as revised and presented.

Motion: Robak

Second: Neumeister

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

12) Approve General Manager Sanders to Perform Treasurer Responsibilities for the District. The General Manager provided a brief summary of the duties of the

Treasurer position. Motion by Director Jenkins to approve naming the General Manager as the District's Treasurer.

Motion: Jenkins

Second: Johnson

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

- 13) Consider Resolution 24-16 to Authorize the General Manager to Perform Treasurer Duties and to Revise Contacts with the California State Treasury and the Local Agency Investment Fund. Motion by Director Robak to approve the Resolution as presented.

Motion: Robak

Second: Neumeister

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

- 14) Approve Demands of the Treasurer for October 2024. List was distributed to the Board at the meeting because of technical issue. Motion by Director Jenkins to approve the demands as presented.

Motion: Jenkins

Second: Robak

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

- 15) CWA Report – CWA Representative Hilliker reported that the Board is making progress reducing spending. Also approved a Federal Advocacy Contract for a two-year contract with Pace Government Relations at a reduced cost. Continuing to work for litigation resolution with MWD. Faster meetings since budget has been done. Participated in a San Vicente Dam tour with Washington DC dept. heads. City of San Diego received a grant for the Lake Hodges dam repair. MWD provided a work committee to update the CWA board of the Bay Delta Conveyance Plan of a single pipe plan.

- 16) Director's Report and Ad Hoc Sub-Committees Reports. No reports.

- 17) Manager's Quarterly Report. The General Manager reported.

- 1) Administration and Operations Solar Installation Update: Permits have been finalized and equipment has been ordered. Installation date is projected for January 2025.
- 2) Office Personnel Update:
 - Autumn Herwehe has started as the District's new Customer Service Representative.
 - Final interviews are being conducted for the District's new Financial and Accounting Specialist. Projected start date before the end of November.

AI Boom Puts Pressure on America Water Systems
Retirements by Water and Wastewater Plant Operators Leading to Shortages

- 17) Adjourn; There being no further business the meeting adjourned to the next Regular Meeting to be held on December 3, 2024 at 5:30 p.m.

Attest:

Brett Sanders, Board Secretary
Lakeside Water District

Frank Hilliker
Board President

Lakeside Water District
Statement of Revenues and Expenses
July through October 2024

	TOTAL			
	Oct 24	Jul - Oct 24	Budget	% of Budget
Operating Revenue				
Water Sales				
4003 · Water Lifeline	\$ 184,227.00	\$ 735,843.00		
4004 · Water Standard	\$ 541,935.00	\$ 2,546,780.00		
4000 · Water Sales on Account - Other	\$ (3,202.00)	\$ (12,700.00)		
Total 4000 · Water Sales on Account	\$ 722,960.00	\$ 3,269,923.00	\$ 8,843,735.00	37%
4010 · System meter charge	\$ 90,001.00	\$ 360,035.00	\$ 1,168,973.00	31%
4020 · CWA/IAC	\$ 37,176.00	\$ 146,022.00	\$ 443,760.00	33%
4040 · Penalties / other	\$ 13,643.00	\$ 49,668.00		
Total Water Sales	\$ 863,780.00	\$ 3,825,648.00	\$ 9,287,495.00	41%
4100 · Capacity Fees LWD	\$ -	\$ 22,812.00	\$ 237,773.00	10%
4101 · SDCWA Capacity & Treatment	\$ -	\$ 30,466.00	\$ 314,039.00	10%
4200 · Meter Services	\$ 15,286.00	\$ 16,849.00	\$ 35,000.00	48%
4210 · Engineering & Inspection Fees	\$ -	\$ -	\$ 7,500.00	0%
4220 · Fire Hydrants	\$ -	\$ -	\$ 30,000.00	0%
4230 · Tapping	\$ -	\$ -	\$ 15,000.00	0%
4300 · Miscellaneous Income	\$ -	\$ 2,807.00	\$ 20,000.00	14%
4310 · Water Letters	\$ 200.00	\$ 1,179.00	\$ 250.00	472%
4400 · Rent - Land Lease	\$ 26,400.00	\$ 108,810.00	\$ 279,976.00	39%
4600 · Interest Income	\$ 20,520.00	\$ 82,996.00	\$ 227,645.00	36%
4700 · Taxes Revenue	\$ 11,304.00	\$ 31,227.00	\$ 720,000.00	4%
4951 · High Meadow Ranch	\$ 2,976.00	\$ 8,184.00	\$ 9,200.00	89%
Total Operating Revenue	\$ 940,466.00	\$ 4,130,978.00	\$ 11,183,878.00	37%
Expense				
Administrative and General				
7000 · General Manager/Secretary	\$ 20,955.00	\$ 79,484.00	\$ 233,446.00	34%
7001 · Incentive Compensation	\$ -	\$ -	\$ 5,000.00	0%
7020 · Director's Fees	\$ 625.00	\$ 3,125.00	\$ 10,750.00	29%
7100 · General Insurance	\$ -	\$ 16,848.00	\$ 66,575.00	25%
7200 · Annual Audit	\$ 15,275.00	\$ 26,975.00	\$ 29,000.00	93%
7210 · Attorney Fees	\$ 2,500.00	\$ 6,110.00	\$ 30,000.00	20%
7230 · Consultants	\$ 7,800.00	\$ 19,528.00	\$ 2,000.00	976%
7300 · Elections/Registrar	\$ -	\$ -	\$ 2,000.00	0%
7320 · Lafco Operating Costs	\$ -	\$ 5,607.00	\$ 5,634.00	100%
7401 · Administrative Expense	\$ -	\$ 545.00	\$ 7,000.00	8%
7450 · Public Info/Public Relat	\$ -	\$ -	\$ 11,350.00	0%
7500 · State Health Dept./ SWRCB	\$ -	\$ -	\$ 49,064.00	0%
7800 · Bad Debt Expense	\$ -	\$ -	\$ 2,000.00	0%
7900 · Water Dev./Conservation Program	\$ -	\$ -	\$ 9,500.00	0%
Total Administrative and General	\$ 47,155.00	\$ 158,222.00	\$ 463,319.00	34%
Operations and Maintenance				
5000 · Water Purchases	\$ 635,099.00	\$ 2,688,930.00	\$ 6,762,714.00	40%
5075 · Padre Dam Deliver Charge	\$ -	\$ -	\$ 2,600.00	0%

TOTAL				
	Oct 24	Jul - Oct 24	Budget	% of Budget
5080 · Water Treatment & Testing	\$ 735.00	\$ 8,375.00	\$ 20,040.00	42%
5090 · Infrastructure Access Charge	\$ 36,458.00	\$ 145,832.00	\$ 443,760.00	33%
5091 · SDCWA Capacity & Treatment Fees	\$ 5,859.00	\$ 30,466.00	\$ 314,039.00	10%
5100 · Electric Power	\$ 47,618.00	\$ 198,101.00	\$ 395,566.00	50%
5200 · Water Treatment -Maint/Supplie	\$ 2,626.00	\$ 29,813.00	\$ 90,000.00	33%
5620 · Yerba Valley Annexation	\$ 1,375.00	\$ 3,093.00	\$ 30,000.00	10%
5627 · County - Road Improvements	\$ -	\$ -	\$ 15,000.00	0%
5628 · Telemetry Repair	\$ 142.00	\$ 7,705.00	\$ 3,000.00	257%
6000 · Wages, Field	\$ 61,780.00	\$ 262,123.00	\$ 783,592.00	33%
6100 · Distribution - Maint/Supplies	\$ 12,508.00	\$ 59,605.00	\$ 130,000.00	46%
6102 · Dist. Pump & Maint	\$ 44.00	\$ 6,629.00	\$ 60,000.00	11%
6110 · Emergency Repairs & Service	\$ -	\$ -	\$ 45,000.00	0%
6200 · Trucks-Fuel,Maintenance,Repair	\$ 12,344.00	\$ 29,644.00	\$ 70,000.00	42%
6400 · Outside Labor	\$ 4,498.00	\$ 16,598.00	\$ 42,000.00	40%
6410 · Engineering	\$ -	\$ 157.00	\$ 20,000.00	1%
7010 · Wages, Office	\$ 31,926.00	\$ 112,359.00	\$ 328,315.00	34%
7030 · Payroll Taxes	\$ 7,058.00	\$ 30,864.00	\$ 102,508.00	30%
7040 · Group Insurance	\$ 29,350.00	\$ 145,799.00	\$ 326,740.00	45%
7050 · CalPers Retirement				
7052 · Pension Expense - 457 Match	\$ 1,161.00	\$ 4,616.00		
7050 · CalPers Retirement - Other	\$ 11,492.00	\$ 74,885.00	\$ 216,831.00	35%
Total 7050 · CalPers Retirement	\$ 12,653.00	\$ 79,501.00	\$ 216,831.00	37%
7070 · Unemployment Insurance	\$ -	\$ -	\$ 5,000.00	0%
7400 · Office Expense	\$ 12,223.00	\$ 62,938.00	\$ 157,714.00	40%
7440 · Dues & Subscriptions	\$ 149.00	\$ 20,988.00	\$ 29,225.00	72%
7920 · Miscellaneous Expense	\$ 132.00	\$ 5,744.00	\$ 5,000.00	115%
Total Operations and Maintenance	\$ 914,577.00	\$ 3,945,263.00	\$ 10,398,644.00	38%
Total Expense	\$ 961,732.00	\$ 4,103,485.00	\$ 10,861,963.00	38%
Net Income	\$ (21,266.00)	\$ 27,493.00	\$ 321,915.00	9%
Capital Requirements				
1510 · Buildings & Land Improvements	\$ -	\$ -	\$ 4,000	0%
1520 · O & M Equipment	\$ -	\$ -	\$ 10,000	0%
1530 · Office Furniture & Equipment	\$ -	\$ -	\$ 4,000	0%
1548 · Office Solar	\$ -	\$ -	\$ 275,000	0%
1547 · CIP Design/Engineering	\$ 108	\$ 43,926	\$ 40,000	110%
xxxx · Yerba Valley Annexation Pipeline	\$ -	\$ -	\$ 300,000	0%
1550 · Pumping Plant & Distribution	\$ 6,757	\$ 13,987	\$ 25,000	56%
1551 · New Service/Meters	\$ -	\$ 1,186	\$ 10,000	12%
1750 · Cellular Transmit Meters (42)	\$ -	\$ -	\$ -	0%
Total Capital Expense	\$ 20,767	\$ 52,234	\$ 668,000	8%

Lakeside Water District
Investment Report
As of October 31, 2024

	Oct 31, 24
ASSETS	
Current Assets	
Checking/Savings	
1020 · UBS Cash Fund	9,440.43
1030 · King Cash Fund	283,274.34
1050 · Multi-Bank Securities, Inc.	633,592.68
1070 · Investment - LAIF	986.10
Total Checking/Savings	927,293.55
Other Current Assets	
Investments	
1321.65 · StBkIndia 1.1% 5/28/25 33682	104,000.00
1321.66 · FHLMC 0.6% 8/12/25	200,000.00
1321.67 · FFCB 0.62% 8/25/25	240,000.00
1321.69 · BkUnited 0.55% 1/22/26 58979	242,000.00
1351.10 · Knoxville 1.95% 11/26/24 68085	100,000.00
1351.11 · St Bk India2.05% 11/27/24 33682	145,000.00
1351.15 · RaymondJame 1.75% 2/14/25 33893	249,000.00
1351.18 · Adirondack 1.1% 3/25/25 28380	249,000.00
1351.19 · CenterstateBk 1% 3/31/25 33555	249,000.00
1351.20 · Evergreen 1.15% 4/28/25 35230	249,000.00
1351.21 · PacifWestrn 1.25% 4/30/25 24045	249,000.00
1351.24 · M1 Bk 1% 5/8/25 9797	249,000.00
1351.25 · EnterpriseB 0.85% 5/14/25 34786	249,000.00
1351.26 · Summit 0.85% 5/15/25 32203	249,000.00
1351.29 · Chippewa 0.5% 7/29/25 12322	151,000.00
1351.30 · FNMA 0.65% 8/14/25	270,000.00
1351.31 · FNMA 0.55% 9/30/25	512,000.00
1351.32 · FMCC 0.625% 11/24/25	500,000.00
1351.33 · FHLB 0.875% 3/10/26	245,000.00
1351.34 · Greenstate 0.7% 3/12/26 60269	249,000.00
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
1351.47 · FHLN 3.75% 5/26/27 no call 12mo	1,000,000.00
1351.48 · StBk India 3.3% 6/1/27 33682	100,000.00
1351.49 · TSRY 3.54% 5/15/27	342,826.69
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
1383.10 · LiveOak 1.85% 1/20/25 58665	230,000.00
1383.15 · Celtic 1.45% 4/17/25 57056	249,000.00
1383.19 · TexasEx 1.1% 5/13/25 20099	125,000.00
1383.20 · Bk Baroda 0.65% 7/22/25 33681	249,000.00
1383.21 · 1st Carolina 0.6% 6/26/25 35530	175,850.50
1383.23 · JP MorganC 0.55% 7/31/25 628	249,000.00
1383.24 · FHLM 0.6% 8/12/25	260,000.00

Lakeside Water District
Investment Report
As of October 31, 2024

	Oct 31, 24
1383.25 · FNMA 0.51% 8/14/25	375,000.00
1383.26 · FNMA 0.57% 12/30/25	270,000.00
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
Total Investments	14,056,861.69
Total Other Current Assets	14,056,861.69
Total Current Assets	14,984,155.24
TOTAL ASSETS	14,984,155.24
LIABILITIES & EQUITY	0.00

Investments by Maturity

October 2024

Description	Cusip	Maturity	Rate	Amount	Est. Yr Interest	Avg Rate
King Fidelity Treasury MM	FZFX		5.00%	\$ 250,000	\$ 12,500.00	
Knoxville Credit Union	499724AK8	11/26/2024	1.95%	\$ 100,000	\$ 1,950.00	
STATE BK INDIA	856285RS2	11/27/2024	2.05%	\$ 145,000	\$ 2,972.50	
Maturity in 2024	\$ 495,000	3%				3.52%
Live Oak Bk	538036HP2	1/20/2025	1.85%	\$ 230,000	\$ 4,255.00	
RAYMOND JAMES BK	75472RBB6	2/14/2025	1.75%	\$ 249,000	\$ 4,357.50	
ADIRONDACK BK UTICA	00687QAT9	3/25/2025	1.10%	\$ 249,000	\$ 2,739.00	
CENTERSTATE BK FLA	15201QCJ4	3/31/2025	1.00%	\$ 249,000	\$ 2,490.00	
CELTIC BANK	15118RUW5	4/17/2025	1.45%	\$ 249,000	\$ 3,610.50	
EVERGREEN BK GROUP	300185JM8	4/28/2025	1.15%	\$ 249,000	\$ 2,863.50	
PACIFIC WESTN BK	69506YRL5	4/30/2025	1.25%	\$ 249,000	\$ 3,112.50	
M1 BK MACKS CREEK MO	55316CAY2	5/8/2025	1.00%	\$ 249,000	\$ 2,490.00	
TEXAS EXCHANGE BANK SSB	88241THD5	5/13/2025	1.10%	\$ 125,000	\$ 1,375.00	
ENTERPRISE BK	29367RLM6	5/14/2025	0.85%	\$ 249,000	\$ 2,116.50	
SUMMIT ST BK SANTA	866264DP6	5/15/2025	0.85%	\$ 249,000	\$ 2,116.50	
State Bank of India	856285TQ4	5/28/2025	1.10%	\$ 104,000	\$ 1,144.00	
FIRST CAROLINA BANK	31944MAY1	6/26/2025	0.60%	\$ 175,851	\$ 1,055.10	
Bank of Baroda	06063HMS9	7/22/2025	0.70%	\$ 249,000	\$ 1,743.00	
CHIPPEWA VY BK	169894AT9	7/29/2025	0.50%	\$ 151,000	\$ 755.00	
JPMORGAN CHASE BANK NA	48128UHS1	7/31/2025	0.55%	\$ 249,000	\$ 1,369.50	
FHLMC	3134GWND4	8/12/2025	0.60%	\$ 260,000	\$ 1,560.00	
FHLMC	3134GWND4	8/12/2025	0.60%	\$ 200,000	\$ 1,200.00	
FNMA	3135G05S8	8/14/2025	0.51%	\$ 375,000	\$ 1,912.50	
FNMA	3136G4C43	8/14/2025	0.65%	\$ 270,000	\$ 1,755.00	
FFCB	313EL4W1	8/25/2025	0.63%	\$ 240,000	\$ 1,502.40	
FNMA	3136G44F7	9/30/2025	0.55%	\$ 512,000	\$ 2,816.00	
FHLMC	FMCC5080214	11/24/2025	0.63%	\$ 500,000	\$ 3,125.00	
FNMA	3135G06Q1	12/30/2025	0.57%	\$ 270,000	\$ 1,541.70	
Maturity in 2025	\$ 6,151,851	43%				0.86%
Bank United	066519QC6	1/22/2026	0.58%	\$ 242,000	\$ 1,410.86	
FHLB	3130ALLS1	3/10/2026	0.88%	\$ 245,000	\$ 2,143.75	
Greenstate	39573LAY4	3/12/2026	0.70%	\$ 249,000	\$ 1,743.00	
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	

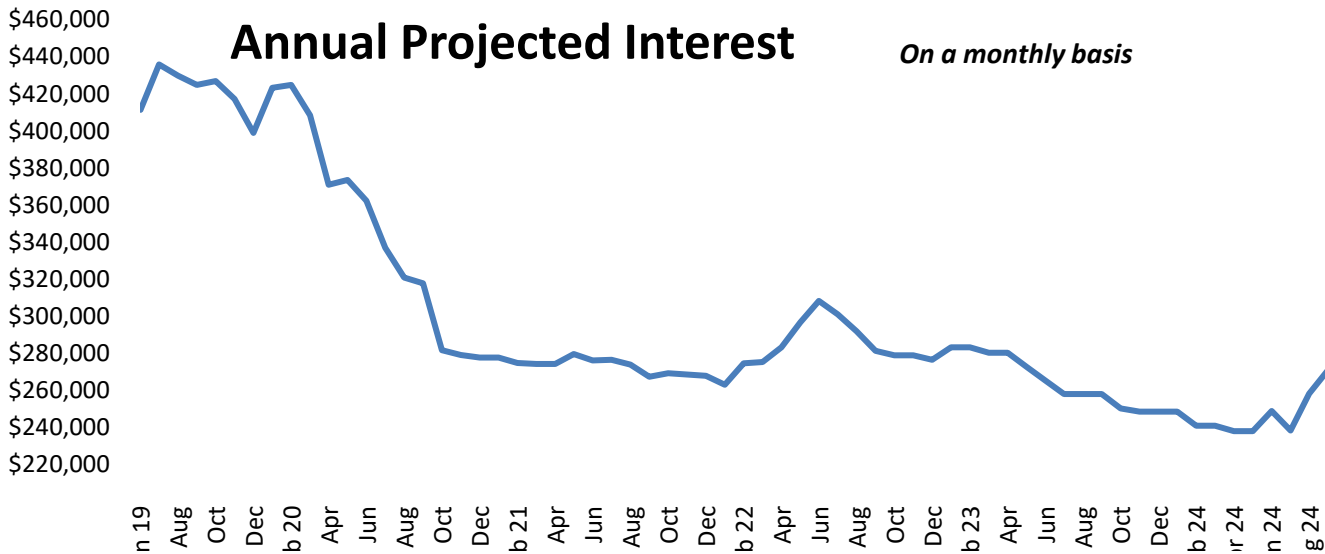
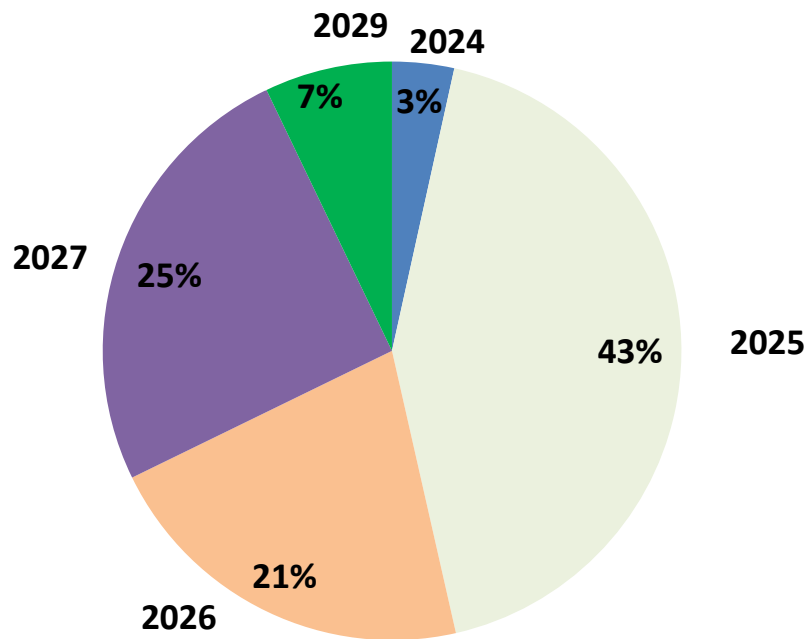
Investments by Maturity

October 2024

<u>Description</u>	<u>Cusip</u>	<u>Maturity</u>	<u>Rate</u>	<u>Amount</u>	<u>Est. Yr Interest</u>	<u>Avg Rate</u>
FHLB	3130AQBE2	12/30/2026	1.65%	\$ 270,000	\$ 4,455.00	
Maturity in 2026	\$ 3,049,000	21%				1.08%
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 Treasury	912828X88	5/15/2027	3.54%	\$ 342,827	\$ 12,136.08	
FHLB	3130ARMS7	5/26/2027	3.75%	\$ 1,000,000	\$ 37,500.00	
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	\$ 3,589,827	25%				3.09%
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	
Maturity in 2029	\$ 1,021,185	7%				4.08%
				<u>Total Investments</u>	<u>Total Yr Interest</u>	<u>Avg</u>
				\$ 14,306,862	\$ 255,981	1.79%

Description	Cusip	Maturity	Rate	Amount	Est. Yr Interest	Avg Rate
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Investments by Maturity Year



OPERATIONS REPORT
December 2024
BOARD OF DIRECTORS MEETING

General Operation:

- *Valle Vista reservoir roof re-coating*
- *Winter preparations*
- *Waste Discharge Basin improvements*
- *SCADA troubleshooting and tuning up*

Contractor/ Developer/ County Projects:

- *AWP pipeline crossings and inspections. Two PRVs put into use.*

District Emergencies Repairs:

- *Main breaks 0*
- *Service leaks 1*
- *Fire hydrants 0*

C. Group Life Insurance

After two months of employment, on the first of the following month, non-temporary full time employees are eligible for life insurance coverage at no cost. This program provides life insurance at the rate of one times annual salary rounded up to the next even \$1000 with a maximum of \$50,000.

D. Disability Benefit Plan

The District has both Short and Long Term Disability Plans available for full time employees upon completion of two (2) month's employment at no cost. The District's Short Term Disability Plan has a 30 day waiting period and will provide 66 2/3% of the regular monthly salary, not to exceed \$7,500 per month. Sick leave and/or vacation may be used to provide full pay during the waiting period. No sick leave or vacation time will accrue after the 30 day waiting period.

Long Term Disability Benefit provides 66 2/3% of the first \$7,500 of your monthly Pre-Disability earnings; the benefit waiting period is 180 days. No sick leave or vacation time will accrue after the 180 day waiting period.

E. Workers Compensation

Any employee injured on the job will be entitled to benefits under the District's Workers Compensation Insurance coverage. It begins with the fourth (4th) calendar day off the job and continues until the employee is considered able to return to work.

F. Unemployment Insurance

The District provides Unemployment Insurance. To apply for benefits or to determine eligibility, employees should contact their nearest Employment Development Department office.

G. Premium Refund Reward Program

At the Discretion of the Board, premium refunds received from the District's insurance provider the Joint Powers Insurance Authority may be distributed among District personnel as determined by the Board. Refunds of premium insurance costs are only paid back to the District when there is zero or low loss claims against District.

8.1-8 SICK LEAVE

A. Accrual

The District provides non-temporary full-time employees with eighty (80) hours sick leave per year, with a limit of two hundred forty hours (240), which may be accrued. Absence from work due to non-work related illness or injury may be deducted from accumulated sick leave. Any accumulation of sick leave over the maximum will be paid on the basis of 50 percent of the current pay rate of the employee in January of each year. If an employee has no sick leave or vacation credit he/she shall not receive compensation for days not worked.

Sick leave may be taken in increments of one (1) hour. New hire full-time employees will receive sixteen (16) hours on date of hire. Any hours remaining on January 1, will drop off when annual allocation is applied.

B. Conversion to Family Leave

Available sick leave can be converted to family leave, a maximum of five days' per year due to sickness in the immediate family where the employees presence at home is required to give care to the family member (i.e. spouse; son or daughter; parents, brother, sister; in-laws, grandchildren or any person over which employee acts as legal guardian).

C. Termination

Upon termination of employment (either voluntary or involuntary less than 15 years' service), other than death or retirement, any accumulated sick leave will be paid on the basis of 25 percent of the current pay rate of the employee, at the time of termination. In the event of retirement or in the event of death, any accumulated sick leave will be paid for on the basis of 50 percent of the current pay rate of the employee at the time of death or retirement of employee. A minimum of 15 years' service with the District is required for a retirement payout of 50%.

D. Short and Long Term Disability Benefit Plans

The District has both Short and Long Term Disability Plans available for full time employees upon completion of two (2) month's employment at no cost. The District's Short Term Disability Plan has a 30 day waiting period and will provide 66 2/3% of the regular monthly salary, not to exceed \$7,500 per month. Sick leave and/or vacation may be used to provide full pay during the waiting period. No sick leave or vacation time will accrue after the 30 day waiting period.

Long Term Disability Benefit provides 66 2/3% of the first \$7,500 of your monthly Pre-Disability earnings; the benefit waiting period is 180 days. No sick leave or vacation time will accrue after the 180 day waiting period.

8.1-9 VACATION

A. Accrual

Full time non-temporary employees shall be credited vacation time after the completion of one (1) year employment, except that twenty-fours will be allocated to a new employee on the date of hire. Any hours remaining at the end of the first year will be carried over.

Vacation shall be earned in accordance with the following schedule.

<u>Years of Service Completed</u>	<u>Earned Vacation Days Per Year</u>
Over One (1) but less than Two (2)	5
Over Two (2) but less than Five (5)	10
Over Five (5) but less than Seven (7)	15
Over Seven (7) but less than Nine (9)	16
Over Nine (9) but less than Eleven (11)	17
Over Eleven (11) but less than Thirteen (13)	18

LAKESIDE WATER DISTRICT CAPACITY AND ANNEXATION FEE REPORT 2024



2025 Lakeside WD Board Meeting Calendar

January

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

February

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

March

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

April

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

May

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

June

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

July

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

August

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

September

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

October

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

November

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Yellow for Regular Meeting

Green for Holidays

Black for Canceled Meeting

**Lakeside Water District
Disbursements List
October 2024**

Num	Name	Account	Original Amount
16416		Payroll Check	Added to Payroll Below
16417	ACWA-Dues	7440 · Dues & Subscriptions	\$ 18,885.00
16418	ACWA JPIA W/C	7100 · General Insurance	\$ 5,439.96
16419	County of San Diego - DPW	6100 · Distribution - Maint/Supplies	\$ 48.00
16420	Excel Telemessaging	7400 · Office Expense	\$ 159.58
16421	Ferguson Waterworks	6100 · Distribution - Maint/Supplies	\$ 2,651.66
16422	Gallade Chemical	5200 · Water Treatment -Maint/Supplie	\$ 1,489.36
16423	HASA	5200 · Water Treatment -Maint/Supplie	\$ 2,834.10
16424	Helix Water District	5080 · Water Treatment & Testing	\$ 909.00
16425	Home Depot Credit Services	6100 · Distribution - Maint/Supplies	\$ 752.69
16426	Inland Pacific Resource Recovery, Inc.	6100 · Distribution - Maint/Supplies	\$ 300.00
16427	Jan-Pro	7400 · Office Expense	\$ 340.00
16428	Kimball Midwest	6100 · Distribution - Maint/Supplies	\$ 24.89
16429	Napa Auto Parts Inc	6200 · Trucks-Fuel,Maintenance,Repair	\$ 22.32
16430	Nyhart Company	7200 · Annual Audit	\$ 1,850.00
16431	Payton's Hardware, Inc.	Split	\$ 197.21
16432	Procopio Cory Hargreaves & Savitch	Split	\$ 1,414.00
16433	Republic Services	6100 · Distribution - Maint/Supplies	\$ 674.58
16434	Robert Half	7010 · Wages, Office	\$ 5,792.00
16435	S.D. Heavy Truck Equipment Repair, Inc	6200 · Trucks-Fuel,Maintenance,Repair	\$ 5,918.27
16436	Sheets, Gregory	Split	\$ 4,725.00
16437	Techniclean Inc.	6400 · Outside Labor	\$ 450.00
16438	Underground Service Alert	7440 · Dues & Subscriptions	\$ 148.75
16439	UniFirst Corp	6100 · Distribution - Maint/Supplies	\$ 1,010.71
16440	United Site Service	6100 · Distribution - Maint/Supplies	\$ 628.58
16441	Wave.Band	7400 · Office Expense	\$ 946.57
16442	WestAir	6100 · Distribution - Maint/Supplies	\$ 300.81
16443	Wintergardens Smog & Tune	6200 · Trucks-Fuel,Maintenance,Repair	\$ 1,232.90
16444	Paramount Property Advisors	Split	\$ 1,934.00
16445	Bradley Foundation Trust	Split	\$ 141.00
16446	A & B Saw & Lawnmower Shop	6100 · Distribution - Maint/Supplies	\$ 354.50
16447	ARCO CONSTRUCTION CO, INC	4000 · Water Sales on Account	\$ 567.95
16448	ATP GENERAL ENGINEERING	4000 · Water Sales on Account	\$ 212.02
16449	Bennett, Randall	4000 · Water Sales on Account	\$ 134.09
16450	BERKI, ED	4000 · Water Sales on Account	\$ 171.52
16451	Border Tire	6200 · Trucks-Fuel,Maintenance,Repair	\$ 35.70
16452	BRANDT, SUSAN	4000 · Water Sales on Account	\$ 159.37
16453	DEMARA, PEARL & ARMANDO	4000 · Water Sales on Account	\$ 144.64
16454	GRIESHABER, F R	4000 · Water Sales on Account	\$ 122.58
16455	HIMES, TAYLOR R	4000 · Water Sales on Account	\$ 107.88
16456	Imperial Sprinkler Supply	5200 · Water Treatment -Maint/Supplie	\$ 20.77
16457	JAKEL, JESSE	4000 · Water Sales on Account	\$ 155.88
16458	KOTINOPOULOS, CANDICE	4000 · Water Sales on Account	\$ 145.97
16459	Leaf & Cole, LLP	7200 · Annual Audit	\$ 5,185.00
16460	MCCONAUGHEY, GLYNDA	4000 · Water Sales on Account	\$ 23.09
16461	MILES, PATRICIA C	4000 · Water Sales on Account	\$ 180.21
16462	OWENS, KRYSTAL	4000 · Water Sales on Account	\$ 112.88
16463	Quadient - Postage	7400 · Office Expense	\$ 1,113.81
16464	Safe & Sound	7400 · Office Expense	\$ 122.85
16465	Scattergood, Philip	4000 · Water Sales on Account	\$ 146.18
16466	SMITH, SAM	4000 · Water Sales on Account	\$ 531.37
16467	TODT, IOVANKA	4000 · Water Sales on Account	\$ 40.00
16468	UniFirst Corp	6100 · Distribution - Maint/Supplies	\$ 204.32
16469	VAN AKEN JR, GARY MARTIN	4000 · Water Sales on Account	\$ 146.98
16470	WARREN, TYLER	4000 · Water Sales on Account	\$ 99.30
16471	HASA	5200 · Water Treatment -Maint/Supplie	\$ 612.78
16472	Snell & Wilmer	7210 · Attorney Fees	\$ 2,500.00
16473	ACWA - Group Ins	7040 · Group Insurance	\$ 30,970.83

Num	Name	Account	Original Amount
16474	Asphalt & Concrete Enterprises, Inc.	6400 · Outside Labor	\$ 3,748.00
16475	Barone, Inc.	6200 · Trucks-Fuel,Maintenance,Repair	\$ 334.51
16476	D & H Water Systems Inc.	5200 · Water Treatment -Maint/Supplie	\$ 268.77
16477	Dexter Wilson Engineering, Inc.	1547 · CIP Design/Engineer	\$ 17,084.25
16478	Enniss, Inc.	6100 · Distribution - Maint/Supplies	\$ 1,227.98
16479	Foxcroft Equipment & Service Inc.	5200 · Water Treatment -Maint/Supplie	\$ 664.50
16480	Hose & Rubber Products	6100 · Distribution - Maint/Supplies	\$ 90.24
16481	Napa Auto Parts Inc	6200 · Trucks-Fuel,Maintenance,Repair	\$ 26.05
16482	Payton's Hardware, Inc.	Split	\$ 145.17
16483	Robert Half	7010 · Wages, Office	\$ 5,212.80
16484	San Diego County Water Authority	5091 · SDCWA Capacity & Treatment Fees	\$ 24,607.00
16485	UniFirst Corp	6100 · Distribution - Maint/Supplies	\$ 204.32
16486	West & Associates Engineering	7230 · Consultants	\$ 1,250.00
16487	WestAir	6100 · Distribution - Maint/Supplies	\$ 169.12
16488-16489		Payroll Checks	Added to Payroll Below
16490	Variable Annuity Life Insurance	2100 · Payroll Liabilities	\$ 3,321.18
16491	Standard Insurance	7040 · Group Insurance	\$ 477.40
eft	First Bankcard - Visa	Split	\$ 6,174.70
eft	First Bankcard - Visa	Split	\$ 4,430.70
eft	San Diego County Water Authority	5000 · Water Purchases	\$ 739,718.20
eft	Verizon	7400 · Office Expense	\$ 140.43
eft	SDGE	5100 · Electric Power	\$ 15.08
eft	SDGE	5100 · Electric Power	\$ 878.64
eft	SDGE	5100 · Electric Power	\$ 1,367.49
eft	SDGE	5100 · Electric Power	\$ 12,895.97
eft	SDGE	5100 · Electric Power	\$ 31,753.38
eft	Cal Pers	2100 · Payroll Liabilities	\$ 6,106.47
eft	Cal Pers	7050 · CalPers Retirement	\$ 11,491.98
eft	Union Bank InstaTax State	2100 · Payroll Liabilities	\$ 5,274.56
eft	San Diego County Credit Union	2100 · Payroll Liabilities	\$ 7,050.00
E-pay	Union Bank InstaTax Federal	2100 · Payroll Liabilities	\$ 26,648.31
Payroll	Payroll	Split	\$ 69,094.80



SUMMARY OF FORMAL BOARD OF DIRECTORS' MEETING NOVEMBER 21, 2024

1. Consideration of Proposed 2025 Legislative Policy Guidelines.
The Board approved the proposed 2025 Legislative Policy Guidelines.
2. Monthly Treasurer's Report on Investments and Cash Flow.
The Board noted and filed the Treasurer's report.
3. Vote Entitlement Resolution for Calendar Year 2025.
The Board adopted Resolution No. 2024-21, a Resolution of the Board of Directors of the San Diego County Water Authority, establishing the vote and representative entitlements of each member agency effective January 1, 2025.
4. Resolution approving the distribution of tax apportionment funds related to Fallbrook Public Utility District to Eastern Municipal Water District.
The Board adopted Resolution No. 2024-22, a Resolution of the Board of Directors of the San Diego County Water Authority, authorizing the General Manager, or designee, to distribute tax apportionment funds received after December 31, 2023, from the County of San Diego for Fallbrook Public Utility District to the Eastern Municipal Water District.
5. Adopt the Annual Statement of Investment Policy, as amended, and continue to delegate authority to the Treasurer to invest Water Authority funds for Calendar Year 2025.
The Board adopted the Annual Statement of Investment Policy, as amended, and continued to delegate authority to the Treasurer to invest Water Authority funds for Calendar Year 2025.
6. Adopt Water Use Efficiency Policy Principles.
The Board adopted the updated Water-Use Efficiency (WUE) Policy Principles.
7. Resolution for WaterSMART Water and Energy Efficiency Grant Application to the Bureau of Reclamation for Water Use Efficiency Projects.
The Board adopted Resolution 2024-23, a Resolution of the Board of Directors of the San Diego County Water Authority, supporting the Water Authority's grant application, authorizing the General Manager to accept any grant funds awarded, and committing the Water Authority to the financial and legal obligations associated with the receipt of grant funds.
8. Resolution for the WaterSMART Desalination Construction Projects Grant Awarded by the Bureau of Reclamation for the Lewis Carlsbad Desalination Intake Permanent Upgrade Project.
The Board adopted Resolution 2024-24, a Resolution of the Board of Directors of the San Diego County Water Authority, supporting the Water Authority's grant application for the Lewis Carlsbad Desalination Intake Permanent Upgrade Project (Project), authorizing the General Manager to accept any grant funds awarded and committing the Water Authority to the financial and legal obligations associated with the receipt of grant funds.



9. Diving services contract with J.F. Brennan Company, Inc. for cathodic protection system replacement on Olivenhain Dam Inlet/Outlet (I/O) Tower gate structures.
The Board awarded professional services contract, with non-material modifications as approved by the General Manager or General Counsel, to J.F. Brennan Company Inc. for a not-to-exceed amount of \$183,416 for diving services for a period of three months, and authorize the General Manager, or designee, to execute the contract.
10. Approval of Minutes
The Board approved the minutes of the Formal Board of Directors' meeting of October 24, 2024.
11. Retirement of Director Tom Kennedy, The City of Escondido.
The Board adopted Resolution No. 2024-25, a Resolution of the Board of Directors of the San Diego County Water Authority, honoring Tom Kennedy upon his retirement from the Board of Directors.
12. Retirement of Director Mike Hogan, Santa Fe Irrigation District.
The Board adopted Resolution No. 2024-26, a Resolution of the Board of Directors of the San Diego County Water Authority, honoring Mike Hogan upon his retirement from the Board of Directors.
13. Audit Committee Annual Report.
The Board accepted and filed the Audit Committee Annual Report pursuant to the Administrative Code, Section 2.00.066, and accepted and filed the Annual Comprehensive Financial Report (ACFR) for fiscal year ended June 30, 2024, prepared in accordance with Generally Accepted Accounting Principles (GAAP).

General Managers
Quarterly Report – State of the District & Report of Capital Outlays and Expenses

December 3, 2024

Board of Directors Meeting

The top issues facing the District in the 1st quarter of 2025 are;

- 1) High Meadow Ranch/Trevi Hills O&M Agreement Update**
- 2) Rate Increase/Implementation**

Our Current Capital Outlays for fiscal year 2024/25 are for the following;

		%Complete
a. Plant & Distribution	\$ 25,000	0
b. New Services and Meters	\$ 10,000	12
c. O & M Equipment	\$ 10,000	0
d. Building & Land Improvements	\$ 4,000	0
e. Office Equipment & Furnishings	\$ 4,000	0
f. Office Solar	\$ 275,000	0
g. Capital Improvement Design/Engineering		
Admin Office Expansion Design	\$ 40,000	110
h. Pumping Plant & Distribution	\$ 25,000	56
i. Building and Land Improvements	\$ 10,000	0
j. Yerba Valley Annexation Pipeline	\$ 300,000	0
	Budget Total	
	\$ 668,000	
	Current Outlay	
	\$ 52,234	14%

News Articles/Editorials Enclosed:

Climate-driven impacts on water in US West will raise the cost of grid decarbonization

What to know about a newly defined chemical byproduct found in drinking water

How will the Northwest's "bomb cyclone" impact San Diego

Climate-driven impacts on water in US West will raise the cost of grid decarbonization: Study

by [Sharon Udasin](#) - 11/25/24 1:08 PM ET

The western U.S.'s plans to decarbonize electricity grids by 2050 may be much more expensive than anticipated, as such targets fail to account for the effects of climate change on water resources, a new study has found.

Shifts in water availability due to warming could decrease hydropower production by up to 23 percent by midcentury, while electricity demand could rise by 2 percent annually, according to the study, published Monday in Nature Communications.

To bridge this gap, the western states would need to add up to 13 gigawatts of transmission capacity and up to 139 gigawatts of generating capacity between 2030 and 2050 — equivalent to almost three times California's peak demand and costing about \$150 billion, per the research.

"Grid planning that ignores climate projections and water linkages underestimates the capacity and investment needed to achieve decarbonization and maintain grid reliability," the authors stated.

Today, hydropower comprises about 20 percent of annual average power production in the U.S. West, and electricity use for water makes up about 7 percent of electricity consumption, according to the study.

In the future, not only may climate change and associated groundwater pumping decrease water availability, but adaptation measures such as desalination and water recycling can also be energy-intensive, the authors explained.

"Failing to account for these changes in energy supply and demand via the water sector may overlook cascading vulnerabilities," the researchers stated.

Ignoring these threats could “jeopardize electricity system climate resilience, and make decarbonization goals elusive,” warned the authors, who partnered across multiple federal research laboratories, the University of California and the University of Toronto.

To draw these conclusions, the scientists created simulations that connected the U.S. West’s water supplies and electricity systems. They then assessed how the region could adapt to various climate change scenarios from 2030 to 2050, amid a shift to carbon-free electricity sources.

No matter which climate change scenario they evaluated, the researchers found that hydropower production plunged. A mix of renewable energy resources, such as wind and solar, complemented by flexible battery storage and geothermal power, would be necessary to compensate for these losses, according to the study.

At the same time, the authors observed that increased needs for air conditioning would drive up power demands, particularly in the Southwest. However, they noted that decreased electricity use for heating in the Pacific Northwest would offset this surge at least in part.

Moving forward, the researchers stressed the importance of integrating robust adaptation strategies into the power sector, with an emphasis on diversifying capacity investments and allowing for more flexibility in policy planning.

A failure on the part of grid planners to explicitly quantify how climate change and water interdependencies could impact electricity supply and demand could be detrimental to the region, the authors noted.

Incorporating these factors into grid expansion models, they concluded, could play a critical role in ensuring “a climate-resilient and zero-emissions grid of the future.”

What to know about a newly defined chemical byproduct found in drinking water

The byproduct has been in tap water for decades, but was hard to isolate.

By [Mary Kekatos](#)

November 22, 2024, 11:02 AM

A chemical byproduct found in some treated drinking water in the U.S. that remained a mystery for more than 40 years may have finally been identified by scientists.

The authors of the study, published Thursday in the [journal Science](#), have named the byproduct chloronitramide anion, and believe it is a decomposition byproduct of chloramine, which is used as a disinfectant in tap water.

The study does not suggest that tap water with the byproduct is unsafe to drink -- but does call for more research to be done. It's estimated [more than 113 million people](#) drink chloraminated processed water in the U.S.

"It's putting a name to the face of this chemical that's been in our water for many years," Dr. Stephanie Widmer, a board-certified medical toxicologist and emergency medicine physician, who was not involved in the study, told ABC News. "The reality is that no one really knows too much about this chloronitramide and its impact on human health, and more research needs to be done."

"These disinfecting chemicals have been giving us clean drinking water for decades, so no reason to fear drinking water as a result of this study," she added.

The study authors suggest, in general, adding a carbon filter to a sink or a standalone pitcher may be a good option for those concerned.

Here's what you need to know about chemicals in drinking water.

How is drinking water treated?

Historically, water systems used chlorine, a chemical element, as a disinfectant for drinking water to remove harmful bacteria, viruses and certain microorganisms.

However, some studies found that [chlorine can have harmful health effects](#). At low levels of exposure, it can irritate the eyes, skin or airways. At high levels, it can cause chest tightness and difficulty breathing.

Chlorine is [still the most commonly used disinfectant](#) in drinking water at treatment plants in the U.S., but the [Environmental Protection Agency sets legal limits](#) on how much is allowed in drinking water and is safe for consumption.

Some water systems decided to use chloramine -- a chemical compound formed by mixing chlorine and ammonia -- as a disinfectant instead. Chloramine forms fewer byproducts than chlorine and is [believed to be more stable](#), making it useful for water systems that deliver water over large distances.

What is this byproduct?

Although chloramine was becoming commonly used as drinking water disinfectant, scientists noticed that byproducts seemed to form as a result. While some were easy to identify, one was more difficult to recognize.

"Chloramine itself, when you add any chemical to water, which itself is another chemical, there are chemical reactions; byproducts are made," Widmer said.

Widmer explained the byproduct, chloronitramide, has been in treated drinking water for years but, because of chemical complexities, it was difficult to isolate and identify.

Performing a chemical study, the authors were able to break down the compound and identify its composition. It was [synthesized in a laboratory and sent for analysis](#). The byproduct was then detected in 40 drinking water samples from 10 U.S. drinking water systems.

"It's not that it's a new chemical that was found, just it's been there," Widmer said.

Is tap water safe to drink?

The levels of chloronitramide anion in drinking water that could pose a risk to health are unknown.

Widmer said more research is needed on the byproduct, and on water supplies in general, but the findings show that research and surveillance of our water systems are ongoing, and scientists are continuing to collect new information.

Unless there is a boil water notice issued in a community, there is nothing to suggest that tap water in a community is unsafe to drink, she said.

"We health professionals, we encourage people to drink a certain amount of water per day," Widmer said. "Water is good for you. We shouldn't be afraid to drink our water. But it's so important that continued research and surveillance is ongoing with regards to our water."

"But, because of this study that came out, no one should be afraid to drink water," she continued. "It hasn't changed anything with regards to our water. It's just a new piece of information that we have to follow up on."

Widmer said people can use sink filters or water pitcher filters if they choose, but he recommended that people do research first on what is being filtered out of the water before making a purchase.

How will the Northwest's "bomb cyclone" impact San Diego?

Bomb cyclones can often reach their levels of destruction when they tap into long, narrow regions of atmospheric moisture, often referred to as "atmospheric rivers."

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SAN DIEGO — As [San Diego's wet season](#) arrives and rain totals climb, scientific terms like "bomb cyclone" and "atmospheric river" are used to give context as to what is causing rain in the region. But, what do these terms really mean? And, will the same impact seen in other parts of the state carry over to San Diego?

The questions carry weight as the first atmospheric river of the season hits the [Pacific Northwest](#) this week and rain and snow are expected to hit [Northern California](#) through Sunday.

Bomb Cyclone

The phrase "bomb cyclone" refers to bombogenesis, a term used to describe rapidly intensifying cyclones that originate between the tropics and the polar regions. According to NOAA, a bomb cyclone "is represented by a drop in millibars, a measurement of pressure used in meteorology. Bombogenesis can happen when a cold air mass collides with a warm air mass, such as air over warm ocean waters."

Atmospheric Rivers

Bomb cyclones can often reach their levels of destruction when they tap into long, narrow regions of atmospheric moisture, often referred to as "atmospheric rivers." They can sometimes be referred to as "rivers in the sky" because the average atmospheric river carries an amount of water vapor roughly equivalent to the average flow of water at the mouth of the Mississippi River. Exceptionally strong atmospheric rivers can transport up to 15 times that amount.

When the atmospheric rivers make landfall, they often release this water vapor in the form of rain or snow. NOAA notes that while atmospheric rivers are responsible for great quantities of rain that can produce flooding, they also contribute to beneficial increases in snowpack and can also provide beneficial rain or snow that is crucial to the water supply.

Pineapple Express

When an atmospheric river pulls moisture located in the tropics north to the subtropics, it's often referred to as the "pineapple express." Much of the moisture is pulled from Hawaii and surrounding ocean areas, hence the pineapple mention.

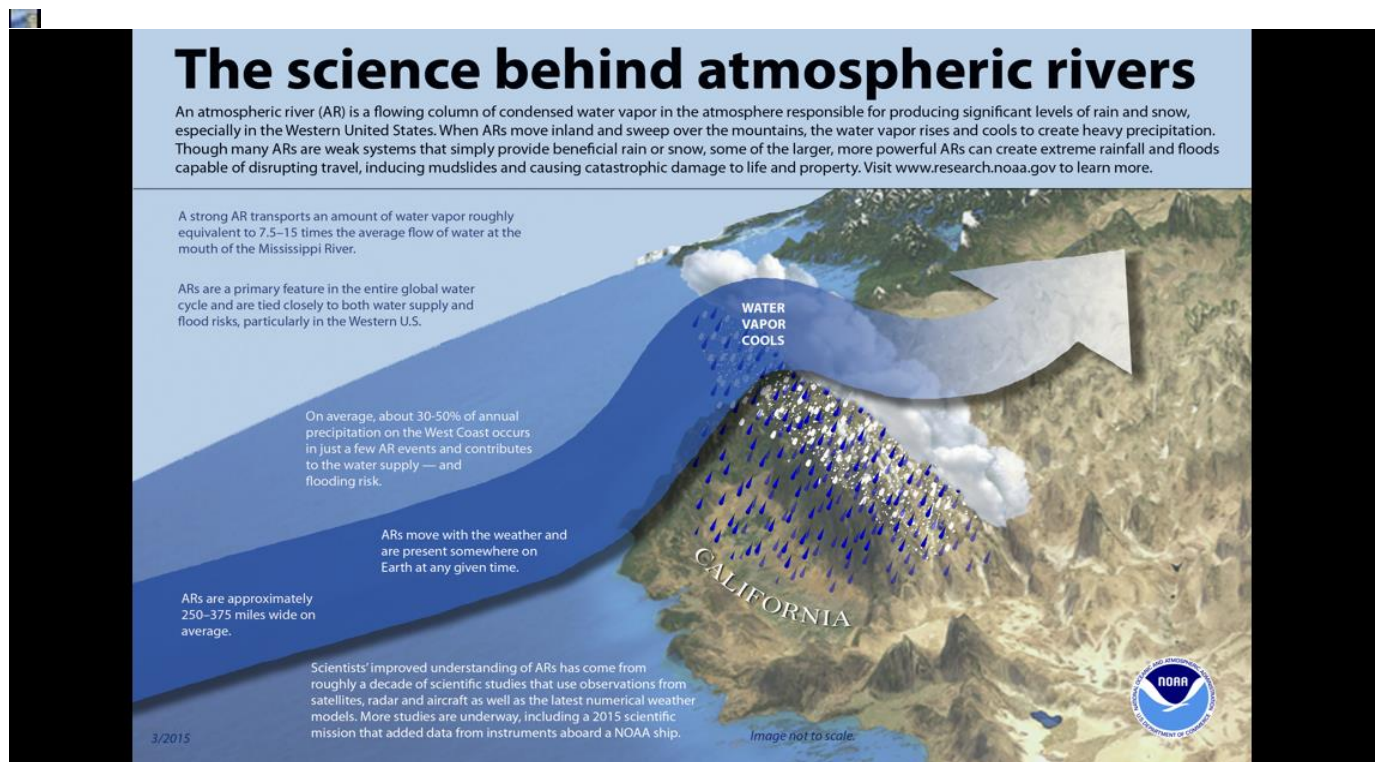
Will the bomb cyclone impact San Diego

Simply put, a very strong trough of low pressure is currently up around the Pacific Northwest and tapping into enormous quantities of moisture that are currently battering other parts of the country. But as this low pressure system travels south, how will it impact San Diego?

While it is still too far out to forecast with certainty, it's doubtful that a storm with any similar intensity will hit San Diego. These systems tend to lose moisture and weaken as they move south, especially when encountering land as opposed to open water. Cyclones are more likely to develop in higher altitudes, like the Pacific Northwest, as opposed to San Diego.

With this specific storm, most models point to a dramatic weakening as it moves south, with less and less moisture in the forecast for Central and Southern California compared to other parts of the state like Northern California. Periods of light to moderate rain are expected between Saturday and Monday, with the heaviest accumulations expected on Sunday.

As we near the arrival of any storm, models tend to become more accurate in what to expect.



Credit: NOAA

North America from space. Elements of this image furnished by NASA