



LAS VIRGENES MUNICIPAL WATER DISTRICT

**4232 Las Virgenes Road
Calabasas, CA 91302**

AGENDA

LVMWD BOARD OF DIRECTORS - REGULAR MEETING TUESDAY, JULY 21, 2026 – 9:00 AM

PUBLIC PARTICIPATION: The public may join this meeting virtually or attend in person in the Board Room. Teleconference participants will be muted until recognized at the appropriate time by the Board President. To join via teleconference, please use the following Webinar ID:

Webinar ID: <https://lvmwd.zoomgov.com/j/1610876866>

To join by telephone, please dial (669) 900-6833 or (346) 248-7799 and enter Webinar ID:

161 087 6866

For members of the public wishing to address the Board during Public Comment or during a specific agenda item, please press "Raise Hand" if you are joining via computer; or press *9 if you are joining via phone; or inform the Executive Assistant/Clerk of the Board if attending in person.

Members of the public can also access and request to speak at meetings live on-line, with audio and limited video, at www.lvmwd.com/livestream. To ensure distribution of the agenda, please submit comments 24 hours prior to the day of the meeting. Those comments, as well as any comments received during the meeting, will be distributed to the members of the Board of Directors and will be made part of the official public record of the meeting. Contact Nancy Lawrence, Executive Assistance/Clerk of the Board, at (818) 251-2123 or nlawrence@lvmwd.gov with any questions.

ACCESSIBILITY: If requested, the agenda and backup materials will be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), and the federal rules and regulations adopted in the implementation thereof. Any person who requires a disability-related modification or accommodation, to attend or participate in this meeting, including auxiliary aids or services, may request such reasonable modification or accommodation by contacting the Executive Assistant/Clerk of the Board by telephone at (818) 251-2123 or via email to nlawrence@lvmwd.gov at least 48 hours prior to the meeting.

Members of the public wishing to address the Board of Directors are advised that a statement of Public Comment Protocols is available from the Clerk of the Board. Prior to speaking, each speaker is asked to review these protocols, complete a speakers' card, and hand it to the Clerk of the Board. Speakers will be recognized in the order the cards are received. A live webcast of the meeting will be available at LVMWD.com. Also, a web-based version of the speaker card is available for those who would like to submit written comments electronically or request to make public comment by telephone during the meeting.

The Public Comments agenda item is presented to allow the public to address the Board on matters not on the agenda. The public may also present comments on matters on the agenda; speakers for agenda items will be recognized at the time the item is called up for discussion.

Materials prepared by the District in connection with the subject matter on the agenda are available for public inspection at 4232 Las Virgenes Road, Calabasas, CA 91302. Materials prepared by the District and distributed to the Board during this meeting are available for public inspection at the meeting or as soon thereafter as possible. Materials presented to the Board by the public will be maintained as part of the records of these proceedings and are available upon request to the Clerk of the Board.

PLEDGE OF ALLEGIANCE

1. **CALL TO ORDER AND ROLL CALL**
2. **APPROVAL OF AGENDA**
3. **PUBLIC COMMENTS**

*Members of the public may now address the Board of Directors **ON MATTERS NOT APPEARING ON THE AGENDA**, but within the jurisdiction of the Board. No action shall be taken on any matter not appearing on the agenda unless authorized by Subdivision (b) of Government Code Section 54954.2*

4. **CONSENT CALENDAR**

Matters listed under the Consent Calendar are considered to be routine, non-controversial and normally approved with one motion. If discussion is requested by a member of the Board on any Consent Calendar item, or if a member of the public wishes to comment on an item, that item will be removed from the Consent Calendar for separate action.

- 4.A **List of Demands: July 21, 2026 (Pg. 5)**

Receive and file.

- 4.B **Minutes: Regular Meeting of June 16, 2026, Special Meeting of July 2, 2026, (Pg. 71)**

and Regular Meeting of July 7, 2026

Approve.

4.C Directors' Per Diem: June 2026 (Pg. 87)

Ratify.

4.D Online Billing Presentment Services: Contract Extension (Pg. 93)

Authorize the General Manager to execute a one-year contract extension with four one-year renewal options with InvoiceCloud, Inc., in an annual amount not-to-exceed \$155,000, for online billing and presentment services.

4.E Contract for Retired Annuitant Part-Time Limited Duration Assignment: (Pg. 95) Increase

Authorize an increase of \$30,000 to the contract for the part-time, limited duration assignment for retired annuitant, Robert Stanwood, from \$50,000 to \$80,000.

4.F McCoy Tank Rehabilitation Project: Change Order No. 1 (Pg. 97)

Authorize the General Manager to execute Change Order No. 1 with Cal Sierra Construction, Inc., in the amount of \$678,425, for full roof and rafter replacement as part of the McCoy Tank Rehabilitation Project, increasing the total construction contract amount from \$1,976,106.70 to \$2,654,531.70, and extending the contract duration by 348 calendar days.

4.G Westlake Filtration Plant Forklift Replacement: Authorization (Pg. 102)

Authorize the General Manager to issue a purchase order to National Lift Fleet Leasing & Sales, in the amount of \$78,678.92, for a new Bobcat Pro 7 Series B25X-7 80V zero-emission forklift.

5. ILLUSTRATIVE AND/OR VERBAL PRESENTATION OF AGENDA ITEMS

5.A MWD Representative Report (Pg. 117)

5.B External Affairs Update: Customer Service (Pg. 125)

6. TREASURER

7. BOARD OF DIRECTORS

7.A ACWA Region 8 Board of Directors: Nomination and Support (Pg. 131)

Pass, approve, and adopt proposed Resolution No. 2676, nominating and supporting Director (to be determined) as a candidate for the ACWA Region 8 Board of Directors.

RESOLUTION NO. 2676

**A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES
MUNICIPAL WATER DISTRICT PLACING IN NOMINATION DIRECTOR (TO BE
DETERMINED) AS A MEMBER OF THE ASSOCIATION OF CALIFORNIA WATER
AGENCIES REGION 8 BOARD OF DIRECTORS**

(Reference is hereby made to Resolution No. 2676 on file in the District's Resolution

Book and by this reference the same is incorporated herein.)

8. **GENERAL MANAGER**

8.A **Water Supply Reliability and Diversification Study (Pg. 145)**

Receive and file the Water Supply Reliability and Diversification Study.

8.B **Internal Audit Program: Results of Regulatory Compliance Audit and Approval of Fiscal Year 2026-2027 Internal Audit Program (Pg. 372)**

Receive and file the Regulatory Compliance Audit and authorize an amendment to the professional services agreement with Eide Bailly, in the amount of \$65,000, to complete a Human Resources Internal Control Audit.

9. **NON-ACTION ITEMS**

A. General Manager's Reports

(a) General Business

(b) Follow-up Items

B. Directors' Comments and Reports on Outside Meetings

10. **FUTURE AGENDA ITEMS**

11. **CLOSED SESSION**

11.A **Threat to Public Services or Facilities and Security Training (Government Code 54957(a))**

Consultation with Eric Schlageter, Director of Engineering and Facilities; Jim Korkosz, Facilities Manager; Ivo Nkwenji, Information Systems Manager; Sophia Crocker, Director of Human Resources and Risk Management; David Pedersen, General Manager; and Tomer Benito, Security and Emergency Manager at Metropolitan Water District of Southern California

12. **ADJOURNMENT**

Pursuant to Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), and applicable federal rules and regulations, requests for a disability-related modification or accommodation, including auxiliary aids or services, in order to attend or participate in a meeting, should be made to the Executive Assistant/Clerk of the Board in advance of the meeting to ensure availability of the requested service or accommodation. Notices, agendas, and public documents related to the Board meetings can be made available in appropriate alternative format upon request.

LAS VIRGENES MUNICIPAL WATER DISTRICT

To: RANDY LEVINE, TREASURER

Payments for Board Meeting of : July 21, 2026

Deputy Treasurer has verified that all checks and wire transfers were issued in conformance with LVMWD Administrative Code Section 2-6.203.

Wells Fargo Bank A/C No. 4806-994448

Check Nos. 114915 - 115009; ACH/ACI Nos. 1273 - 1295 were issued in the total amount of:

\$ 1,783,904.50

Payments through direct disbursements as follows:

Direct Disbursement payment number 26276-26289

\$ 54,470.45

Payments through wire transfers as follows:

6/23/2026 Wire #1257 - IOSIGHT Professional Svcs. - Annual Maintenance/support for automated CIWQS Reports

\$ 3,500.00

6/23/2026 Wire #1259 - CalPERS CERBT 4th Quarter Contribution

\$ 176,700.75

6/23/2026 Wire #1272 - U.S. Bank/Walsh Escrow Retention Payments #1-4

\$ 1,118,882.70

\$ 1,299,083.45

Total Payments

\$ 3,137,458.40

(Reference is hereby to these demands on file in the District's Check Register and by this reference the same is incorporated herein and made a part hereof.)

CHECK/ACH/ACI LISTING FOR BOARD MEETING
7/21/2026

		Check No. 114915-114960; 1273-1287 06/23/26	Check No. 114961; 06/23/26	Check No. 114962-115009; 1288-1295 06/30/26	
Company Name	Company No.	Amount	Amount	Amount	Total
Potable Water Operations	101	312,854.69	25.00	26,671.01	339,550.70
Recycled Water Operations	102	832.94			832.94
Sanitation Operations	130	40,142.16		64,064.22	104,206.38
Potable Water Construction	201				-
Water Conservation Construction	203				-
Sanitation Construction	230				-
Potable Water Replacement	301	56,443.08		952,548.95	1,008,992.03
Recycled Water Replacement	302				-
Sanitation Replacement	330			1,220.00	1,220.00
Internal Service	701	198,753.94		54,776.17	253,530.11
JPA Operations	751	285,502.22		166,203.79	451,706.01
JPA Construction	752				-
JPA Replacement	754	499,834.23		49,455.60	549,289.83
Total Printed		1,394,363.26	25.00	1,314,939.74	2,709,328.00
Voided Checks/ACH/ACI stopped:					
Check No. 114257	301	-	-	(925,423.50)	(925,423.50)
		-	-	-	-
		-	-	-	-
		-	-	-	-
Total Voids		-	-	(925,423.50)	(925,423.50)
Net Total		1,394,363.26	25.00	389,516.24	1,783,904.50

DIRECT DISBURSEMENTS LISTING FOR BOARD MEETING
7/21/2026

Company Name	Company No.	Direct Disb. No. 26276 06/23/26	Direct Disb. No. 26277-26289 06/30/26	Total
		Amount	Amount	
Potable Water Operations	101		7,605.85	7,605.85
Recycled Water Operations	102			-
Sanitation Operations	130		197.44	197.44
Potable Water Construction	201			-
Water Conservation Construction	203			-
Sanitation Construction	230			-
Potable Water Replacement	301			-
Recycled Water Replacement	302			-
Sanitation Replacement	330			-
Internal Service	701		37,645.02	37,645.02
JPA Operations	751		7,392.30	7,392.30
JPA Construction	752			-
JPA Replacement	754	1,629.84		1,629.84
Total Printed		1,629.84	52,840.61	54,470.45
Voided Direct Disbursements:				
		-	-	-
		-	-	-
Total Voids		-	-	-
Totals		1,629.84	52,840.61	54,470.45

WIRE LISTING FOR BOARD MEETING
7/21/2026

		Wire No. 1257, 1259, 1272 06/23/26	
Company Name	Company No.	Amount	Total
Potable Water Operations	101		-
Recycled Water Operations	102		-
Sanitation Operations	130		-
Potable Water Construction	201		-
Water Conservation Construction	203		-
Sanitation Construction	230		-
Potable Water Replacement	301		-
Recycled Water Replacement	302		-
Sanitation Replacement	330		-
Internal Service	701	176,700.75	176,700.75
JPA Operations	751	3,500.00	3,500.00
JPA Construction	752		-
JPA Replacement	754	1,118,882.70	1,118,882.70
Total Printed		1,299,083.45	1,299,083.45
Voided Wires:			
		-	-
		-	-
Total Voids		-	-
Totals		1,299,083.45	1,299,083.45

CASH ACCOUNT: 999	100100	Cash-General
CHECK NO	CHK DATE	TYPE VENDOR NAME

Report generated: 06/23/2026 10:07
User: 3296tchau
Program ID: apcshdsb

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

					INVOICE	INV DATE	PO	CHECK RUN	NET
					INVOICE DTL DESC				
Invoice: 95688					SAND MATERIALS & AGGREGATE SALES, 95688	05/15/2026		062326	1,229.33
					25.55 TNS AGGREGATE Supplies/Material				
					1,229.33 101700 551000				
					CHECK			1279 TOTAL:	3,035.89
1280 06/23/2026 EFT Invoice: 20098					17645 TORO ENTERPRISES, INC. 20098	05/29/2026		062326	32,065.91
					32,065.91 101700 551500	23777 MULHLLND HWY-BACKFLOW REPAIR Outside Services			
Invoice: 19712					TORO ENTERPRISES, INC. 19712	01/31/2026		062326	80,932.94
					80,932.94 101700 551500	5200 CANGAS RD-EMRGNCY RPLCMT OF 6" HYDRANT VALVE Outside Services			
					CHECK			1280 TOTAL:	112,998.85
1281 06/23/2026 EFT Invoice: 53928030					30536 UNIVAR SOLUTIONS INC. 53928030	06/01/2026		062326	9,932.18
					9,932.18 751810 541011	48,020 LBS SODIUM BISULFITE Sodium Bisulfite			
					CHECK			1281 TOTAL:	9,932.18
1282 06/23/2026 EFT Invoice: 8821791474					3035 VWR SCIENTIFIC 8821791474	06/02/2026		062326	406.60
					406.60 701341 551000	FIELD PH PENS Supplies/Material			
Invoice: 8821793791					VWR SCIENTIFIC 8821793791	06/02/2026		062326	456.14
					456.14 701341 551000	VOLUMETRIC FLASK, NUTRIENT AGAR Supplies/Material			
					CHECK			1282 TOTAL:	862.74
1283 06/23/2026 EFT Invoice: 10635/PMT#25					30823 WALSH CONSTRUCTION COMPANY II, LL 10635/PMT#25	06/05/2026		062326	499,834.23
					499,834.23 754440 900000	PHASE 1 DESIGN BUILD SVCS PWP MAY 2026 Capital Asset Expenses			
					CHECK			1283 TOTAL:	499,834.23
1284 06/23/2026 EFT Invoice: 2067201					30420 WEST YOST & ASSOCIATES, INC 2067201	04/30/2026		062326	2,932.25
					2,932.25 701223 651600	GRANT MANAGEMENT SERVICE APRIL 2026 Other Professional Serv			
					CHECK			1284 TOTAL:	2,932.25

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

CHECK NO	CHK DATE	TYPE	VENDOR NAME	INVOICE	INV DATE	PO	CHECK RUN	NET	
INVOICE DTL DESC									
1285	06/23/2026	PRTD	2814 MCMaster-CARR SUPPLY CO	65872752	06/01/2026		062326	250.28	
Invoice: 65872752				250.28 751820 551000	CAM-AND-GROOVE HOSES & BAND Supplies/Material		CLAMPS		
Invoice: 65981349				96.31 751750 541000	06/02/2026 METAL ROUTNG CLAMP & STRUT Supplies		062326	96.31	
Invoice: 65985109				709.67 701002 551000	06/02/2026 ELECTRICAL SUPPLIES Supplies/Material		062326	709.67	
Invoice: 66150740				297.83 101600 551000	06/04/2026 ELECTRICAL SUPPLIES Supplies/Material		062326	297.83	
							CHECK	1285 TOTAL:	1,354.09
1286	06/23/2026	PRTD	4525 HARRINGTON INDUSTRIAL PLASTICS IN	005E9889	05/19/2026		062326	1,764.02	
Invoice: 005E9889				1,764.02 751750 551000	KIT CHAMBER STACK Supplies/Material				
							CHECK	1286 TOTAL:	1,764.02
1287	06/23/2026	PRTD	7770 AUTOMATIONDIRECT.COM	19257793	05/29/2026		062326	453.27	
Invoice: 19257793				453.27 101100 551000	HEATER AND VENT FAN Supplies/Material				
Invoice: 19153867				1,626.50 101100 551000	04/24/2026 ELECTRICAL SUPPLIES Supplies/Material		062326	1,626.50	
Invoice: 19184630				1,761.49 101100 551000	05/05/2026 ELECTRICAL SUPPLIES Supplies/Material		062326	1,761.49	
Invoice: 19285746				392.91 751820 551000	06/08/2026 VFD REMOTE PANEL Supplies/Material		062326	392.91	
							CHECK	1287 TOTAL:	4,234.17
114915	06/23/2026	PRTD	30729 AMAZON CAPITAL SERVICES, INC.	1PDL-GLCM-GPP3	06/08/2026		062326	75.91	
Invoice: 1PDL-GLCM-GPP3				75.91 701420 543000	20 PACK RJ45 COUPLER Capital outlay				
Invoice: 1Q3L-MGDH-YJ9C					06/05/2026 USB 2.0 & FLASH DRIVES		062326	87.90	

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

CHECK NO	CHK DATE	TYPE	VENDOR NAME	INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC								
				87.90 701420	543000	Capital Outlay		
Invoice: 1QGQ-9TJ4-WMPW			AMAZON CAPITAL SERVICES, INC.	1QGQ-9TJ4-WMPW	06/01/2026		062326	110.44
				110.44 101900	572500	GARLOCK BLUEGUARD 3000 RING TYPE GASKET Genl Supplies/Small Tools		
Invoice: 1TY6-QPYP-WYJQ			AMAZON CAPITAL SERVICES, INC.	1TY6-QPYP-WYJQ	06/08/2026		062326	27.66
				27.66 751820	551000	RF COAX ADAPTER AND 90-DEGREE ADAPTER Supplies/Material		
Invoice: 14YR-VYMD-1W17			AMAZON CAPITAL SERVICES, INC.	14YR-VYMD-1W17	06/08/2026		062326	495.85
				495.85 101100	551000	BATTERY BACKUP AND SURGE PROTECTOR Supplies/Material		
Invoice: 1CRC-TR1C-JJG9			AMAZON CAPITAL SERVICES, INC.	1CRC-TR1C-JJG9	06/06/2026		062326	53.71
				53.71 701125	682500	PRIZES FOR COAST TO COAST Empl wellness Program		
						CHECK	114915 TOTAL:	851.47
114916 06/23/2026 PRTD	2397	AQUATIC BIOASSAY & CONSULTING		LVS0626.0335	06/10/2026		062326	1,040.00
Invoice: LVS0626.0335				1,040.00 751810	571520	CHRONIC TOXICITY TESTING Other Laboratory Serv		
						CHECK	114916 TOTAL:	1,040.00
114917 06/23/2026 PRTD	19264	ARNOLD LAROCHELLE MATHEWS VANCONA	14543		06/10/2026		062326	725.00
Invoice: 14543				725.00 751840	687200	JPA COUNSEL SRV MAY 2026 Outside Services		
						CHECK	114917 TOTAL:	725.00
114918 06/23/2026 PRTD	20695	AT&T A/C -0051		00515552/060526	06/05/2026		062326	2,080.93
Invoice: 00515552/060526					SRV 5/6-6/5/26	ACT#960 350-0051 555 2		
				109.17 101600	540520	Telephone		
				56.51 130100	540520	Telephone		
				70.22 130100	540520	Telephone		
				847.60 751810	540520	Telephone		
				385.87 701002	540520	Telephone		
				42.55 701001	540520	Telephone		
				116.93 751820	540520	Telephone		
				56.51 101107	540520	Telephone		
				56.51 101107	540520	Telephone		
				56.51 101104	540520	Telephone		
				56.51 101108	540520	Telephone		
				56.51 101117	540520	Telephone		
				56.51 101110	540520	Telephone		
				56.51 101121	540520	Telephone		
				56.51 101123	540520	Telephone		

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

INVOICE

INV DATE

PO

CHECK RUN

NET

INVOICE DTL DESC

CHECK 114918 TOTAL: 2,080.93

 114919 06/23/2026 PRD 16253 AT&T MOBILITY
 Invoice: 287319785901X061026

287319785901X061026 06/02/2026

062326

6,336.48

MOBILITY FOUNDATION 5/3/26-6/2/26 ACT#2873197859

208.44	101300	540520	Telephone
81.48	701121	540520	Telephone
45.48	701122	540520	Telephone
45.48	701210	540520	Telephone
40.74	701220	540520	Telephone
531.54	701221	540520	Telephone
136.44	701222	540520	Telephone
84.13	701223	540520	Telephone
131.70	701230	540520	Telephone
40.74	701310	540520	Telephone
250.61	701322	540520	Telephone
3,039.90	701331	540520	Telephone
45.48	701332	540520	Telephone
254.33	701420	540520	Telephone
45.48	701440	540520	Telephone
40.74	701510	540520	Telephone
86.22	701520	540520	Telephone
462.36	701521	540520	Telephone
180.61	701526	540520	Telephone
167.70	701530	540520	Telephone
208.44	751810	540520	Telephone
126.96	751820	540520	Telephone
81.48	701224	540520	Telephone

Invoice: 992789332X06112026 AT&T MOBILITY

992789332X06112026 06/03/2026

062326

481.03

WIRELESS SRV 5/4-6/3/26 ACT#992789332

437.30	701224	540520	Telephone
43.73	701331	540520	Telephone

CHECK 114919 TOTAL: 6,817.51

 114920 06/23/2026 PRD 30535 BETTER BUSINESS PLANNING, INC 557477
 Invoice: 557477

270.73 701125 622000

 06/05/2026 062326 270.73
 FSA DEBIT CARD JUNE 2026
 Outside Services

CHECK 114920 TOTAL: 270.73

 114921 06/23/2026 PRD 31163 BODY TECHNIQUES LLC
 Invoice: 94853

94853

220.00 701125 682500

 05/21/2026 062326 220.00
 WELLNESS HOUR CLASS
 Empl Wellness Program

CHECK 114921 TOTAL: 220.00

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

CHECK NO	CHK DATE	TYPE	VENDOR NAME	INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC								
114922	06/23/2026	PRTD	21426 BRIGHTVIEW LANDSCAPE SERVICES, IN	9742298	04/01/2026		062326	35,568.00
Invoice: 9742298				35,568.00 751810 678800	SPRAYFIELD & MAINT APRIL 2026			
					District Sprayfield			
Invoice: 9778974				BRIGHTVIEW LANDSCAPE SERVICES, IN 9778974	05/31/2026		062326	35,568.00
				35,568.00 751810 678800	SPRAYFIELD & MAINT MAY 2026			
					District Sprayfield			
					CHECK	114922	TOTAL:	71,136.00
114923	06/23/2026	PRTD	2533 CITY OF AGOURA HILLS	052826	05/28/2026		062326	3,000.00
Invoice: 052826				3,000.00 701230 660410	SPONSORSHIP FOR CONCERTS IN THE PARK SERIES			
					Professional Org Sponsorships			
					CHECK	114923	TOTAL:	3,000.00
114924	06/23/2026	PRTD	15755 CORE & MAIN LP	Y908466	05/20/2026	2260171	062326	417.72
Invoice: Y908466				417.72 701 132000	GAUGES			
					Storeroom & Truck Inventory			
					CHECK	114924	TOTAL:	417.72
114925	06/23/2026	PRTD	30593 DION & SONS, INC	V224941A	03/25/2026		062326	2,922.80
Invoice: V224941A				2,922.80 751820 551000	165 GAL OIL - RANCHO			
					Supplies/Material			
Invoice: V226065				DION & SONS, INC V226065	05/28/2026		062326	1,338.13
				1,338.13 751830 541010	248.60 GAL RED DYE DIESEL - RANCHO			
					Fuel			
Invoice: V226066				DION & SONS, INC V226066	05/28/2026		062326	1,050.96
				1,050.96 751820 541010	194 GAL RED DYE DIESEL - RANCHO			
					Fuel			
					CHECK	114925	TOTAL:	5,311.89
114926	06/23/2026	PRTD	7257 DIRECTV, INC.	013810616X260606	06/06/2026		062326	10.00
Invoice: 013810616X260606				10.00 101600 551500	TV ACCESS FEE 6/5-7/4/26			
					Outside Services			
					CHECK	114926	TOTAL:	10.00
114927	06/23/2026	PRTD	2638 ENVIRONMENTAL RESOURCE ASSOCIATES	148448	05/28/2026	2260222	062326	6,246.70
Invoice: 148448				6,246.70 701341 551000	QC SAMPLES FOR STAFF DEMONSTRATIONS			
					Supplies/Material			

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
				INVOICE DTL DESC				
				CHECK		114927	TOTAL:	6,246.70
114928	06/23/2026	PRTD	18743	EUROFINS DRINKING WATER AND WASTE	3800129078	05/30/2026	062326	12,508.00
				Invoice: 3800129078				
				2,994.00	751810	571520	LAB SAMPLING	
				330.00	751810	571520	Other Laboratory Serv	
				3,087.00	751810	571520	Other Laboratory Serv	
				280.00	751810	571520	Other Laboratory Serv	
				150.00	751810	571520	Other Laboratory Serv	
				285.00	751810	571520	Other Laboratory Serv	
				607.00	751810	571520	Other Laboratory Serv	
				200.00	751810	571520	Other Laboratory Serv	
				124.00	751810	571520	Other Laboratory Serv	
				25.00	701341	551500	outside Services	
				229.00	751820	571520	Other Laboratory Serv	
				445.00	101300	571520	Other Laboratory Serv	
				630.00	101300	571520	Other Laboratory Serv	
				185.00	751810	571520	Other Laboratory Serv	
				471.00	101300	571520	Other Laboratory Serv	
				1,200.00	101300	571520	Other Laboratory Serv	
				105.00	101300	571520	Other Laboratory Serv	
				1,161.00	751810	571520	Other Laboratory Serv	
				CHECK		114928	TOTAL:	12,508.00
114929	06/23/2026	PRTD	31067	EVERON, LLC	161098661	06/05/2026	062326	1,818.08
				Invoice: 161098661				
				1,818.08	301440	900000	INSTALLATN OF CODE COMPLIANT FIRE ALARM SYS BLDG 2	
						Capital Asset Expenses		
				CHECK		114929	TOTAL:	1,818.08
114930	06/23/2026	PRTD	2655	FERGUSON WATERWORKS #1089	0076610	05/29/2026	2260203 062326	29,485.55
				Invoice: 0076610				
				29,485.55	701	132000	RECLAIM REGISTERS	
						Storeroom & Truck Inventory		
				CHECK		114930	TOTAL:	29,485.55
114931	06/23/2026	PRTD	30738	FOSTER & FOSTER CONSULTING ACTUAR	41826	05/08/2026	062326	2,005.00
				Invoice: 41826				
				2,005.00	701410	652200	OPEB ACTUARIAL UPDATED FOR FY ENDING 6/30/26	
						Mgmt Consultant Fees		
				CHECK		114931	TOTAL:	2,005.00
114932	06/23/2026	PRTD	30967	FRIX TECHNOLOGIES LLC	2606901	06/09/2026	062326	26,424.00
				Invoice: 2606901				
				26,424.00	701420	651600	ELECTRONIC DOC MGMT MARCH-MAY 2026	
						Other Professional Serv		

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC								
					CHECK	114932	TOTAL:	26,424.00
114933	06/23/2026	PRTD	6770	G.I. INDUSTRIES	3205862-0283-2	06/01/2026	062326	123.72
Invoice: 3205862-0283-2				123.72	751830	551500	DISP RLV FARM JUNE 2026 Outside Services	
Invoice: 3205861-0283-4				123.72	751820	551800	DISP RLV FARM JUNE 2026 Building Maintenance	
					CHECK	114933	TOTAL:	247.44
114934	06/23/2026	PRTD	2705	HACH COMPANY	15025505	06/01/2026	062326	155.73
Invoice: 15025505				155.73	101600	541000	LAB SUPPLIES FOR PLANT RUN Supplies/Material	
					CHECK	114934	TOTAL:	155.73
114935	06/23/2026	PRTD	30974	HEALTH ENHANCEMENT SYSTEMS, INC	10-12420	06/09/2026	062326	171.60
Invoice: 10-12420				171.60	701125	682500	RESELLER COAST TO COAST PER REGISTRANT FEE Empl Wellness Program	
					CHECK	114935	TOTAL:	171.60
114936	06/23/2026	PRTD	10102	INFOSEND INC.	311392	05/31/2026	062326	14,446.07
Invoice: 311392				14,446.07	701221	622000	4/30/26-5/28/26 BILL PAYMENT MAILING Outside Services	
					CHECK	114936	TOTAL:	14,446.07
114937	06/23/2026	PRTD	2547	LOS ANGELES COUNTY SANITATION DIS	48892/053126	05/31/2026	062326	979.33
Invoice: 48892/053126				979.33	751810	541500	TAPIA GRIT HAULING MAY 2026 Outside Services	
					CHECK	114937	TOTAL:	979.33
114938	06/23/2026	PRTD	2611	LA DWP	0176980000/061526	06/15/2026	062326	51.75
Invoice: 0176980000/061526				51.75	101106	540510	RECTIFIER 5/15-6/15/26 Energy	
Invoice: 8756980000/061526				13,037.59	101106	540510	8756980000/061526 06/15/2026 TWIN LAKES P/S 5/16-6/15/26 Energy	13,037.59

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC								
					CHECK	114938	TOTAL:	13,089.34
114939	06/23/2026	PRTD	20973 MERRIMAC ENERGY GROUP	2247089	04/27/2026		062326	20,716.91
Invoice: 2247089				20,716.91	701525	551010	3,970 GAL UNLEADED FUEL	
					CHECK	114939	TOTAL:	20,716.91
114940	06/23/2026	PRTD	31129 CANE VENTURES, LLC	1006642	05/27/2026		062326	823.00
Invoice: 1006642				823.00	101700	551000	ALL THREAD AND SHORING BARS	
							Supplies/Material	
Invoice: 1006523							05/14/2026	99.68
				99.68	701224	551000	FLAT STOCK METAL	
							Supplies/Material	
					CHECK	114940	TOTAL:	922.68
114941	06/23/2026	PRTD	30922 NORTH HILLS RECYCLING INC.	34173	05/31/2026		062326	1,731.86
Invoice: 34173				1,731.86	751820	541080	120 1/4 INCH WOOD CHIP BULK SUPPLY	
							Amendment	
					CHECK	114941	TOTAL:	1,731.86
114942	06/23/2026	PRTD	2302 ODP BUSINESS SOLUTIONS LLC	471397583001	06/05/2026		062326	29.62
Invoice: 471397583001				29.62	701410	620000	NAME PLATE	
							Forms, Supplies And Postage	
					CHECK	114942	TOTAL:	29.62
114943	06/23/2026	PRTD	18874 PACIFIC HYDROTECH CORPORATION	10655/PMT#16	05/12/2026		062326	54,625.00
Invoice: 10655/PMT#16				54,625.00	301440	900000	CORNELL P/S IMPROVEMENTS APRIL 2026	
							Capital Asset Expenses	
					CHECK	114943	TOTAL:	54,625.00
114944	06/23/2026	PRTD	30336 PIPE TEC, INC.	15725	05/26/2026		062326	4,282.19
Invoice: 15725				4,282.19	130100	551500	SEWER LINE CLEANING/JETTING 5/26/26	
							Outside Services	
Invoice: 15726							05/27/2026	5,069.90
				5,069.90	130100	551500	SEWER LINE CLEANING/JETTING 5/27/26	
							Outside Services	
Invoice: 15727							05/28/2026	3,275.47
							SEWER LINE CLEANING/JETTING 5/28/26	

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
				INVOICE DTL DESC				
				3,275.47 130100 551500	Outside Services			
Invoice: 15728		PIPE TEC, INC.		15728	05/29/2026		062326	3,401.31
				3,401.31 130100 551500	SEWER LINE CLEANING/JETTING 5/29/26 Outside Services			
Invoice: 16043		PIPE TEC, INC.		16043	05/19/2026		062326	7,187.68
				7,187.68 130100 551500	CCTV INSPECTIONS 5/19/26 Outside Services			
Invoice: 16196		PIPE TEC, INC.		16196	05/26/2026		062326	4,118.24
				4,118.24 130100 551500	CCTV INSPECTIONS/CONFINE SPCE ENTRYJETTING 5/26/26 Outside Services			
				CHECK	114944	TOTAL:		27,334.79
114945 06/23/2026 PRTD	18505	RAFTELIS FINANCIAL CONSULTANTS, I	46298		06/10/2026		062326	6,115.00
Invoice: 46298				6,115.00 701420 651600	ASST MGMT SYST& IMPLNT CNSLTNG SVCS MAY 2026 Other Professional Serv			
				CHECK	114945	TOTAL:		6,115.00
114946 06/23/2026 PRTD	20124	RON'S PORTABLE WELDING	7060		06/03/2026		062326	720.00
Invoice: 7060				720.00 101700 551500	WELDING SVCS 6/3/26 Outside Services			
Invoice: 7058		RON'S PORTABLE WELDING	7058		05/27/2026		062326	480.00
				480.00 101700 551500	WELDING SVCS 5/27/26 Outside Services			
Invoice: 7056		RON'S PORTABLE WELDING	7056		05/14/2026		062326	640.00
				640.00 101700 551500	WELDING SVCS 5/14/26 Outside Services			
				CHECK	114946	TOTAL:		1,840.00
114947 06/23/2026 PRTD	20583	RT LAWRENCE CORPORATION	50846		06/05/2026		062326	580.46
Invoice: 50846				580.46 701221 622000	LOCKBOX FEE MAY 2026 Outside Services			
				CHECK	114947	TOTAL:		580.46
114948 06/23/2026 PRTD	2956	SOUTH COAST AIR QUALITY MGMT DIST	4723410		05/01/2026		062326	172.49
Invoice: 4723410				172.49 101100 542000	ID# 164911 AQMD FEE FY 25-26 Permits and Fees			
Invoice: 4727110		SOUTH COAST AIR QUALITY MGMT DIST	4727110		05/01/2026		062326	172.49
					ID# 205999 AQMD FEE FY 25-26			

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

		INVOICE		INV DATE	PO	CHECK RUN	NET
				INVOICE DTL DESC			
		172.49	101100	542000	Permits and Fees		
		CHECK 114948 TOTAL:					344.98
114949	06/23/2026	PRTD	30020	SOUTHERN CA EDISON	11884/052126	05/21/2026	062326 175,686.82
		Invoice: 11884/052126		MARCH-MAY 2026 NET USAGE			
		11,079.20	101101	540510	Energy		
		20,325.58	101102	540510	Energy		
		25,468.69	101103	540510	Energy		
		5,652.20	101104	540510	Energy		
		1,552.11	101105	540510	Energy		
		2,659.50	101107	540510	Energy		
		7,841.33	101108	540510	Energy		
		250.38	101109	540510	Energy		
		40,328.65	101110	540510	Energy		
		601.89	101112	540510	Energy		
		9,789.74	101113	540510	Energy		
		1,356.08	101114	540510	Energy		
		1,234.84	101115	540510	Energy		
		1,590.97	101116	540510	Energy		
		1,612.00	101117	540510	Energy		
		5,558.84	101118	540510	Energy		
		700.76	101119	540510	Energy		
		5,536.05	101120	540510	Energy		
		1,337.89	101121	540510	Energy		
		2,276.80	101122	540510	Energy		
		4,882.69	101123	540510	Energy		
		2,441.34	101124	540510	Energy		
		94.50	101202	540510	Energy		
		73.89	101204	540510	Energy		
		10.59	101221	540510	Energy		
		36.16	101222	540510	Energy		
		14,868.67	101600	540510	Energy		
		13.57	101700	540510	Energy		
		832.94	102100	540510	Energy		
		12,680.64	130100	540510	Energy		
		16,704.98	701001	540510	Energy		
		515.80	701002	540510	Energy		
		1.15	701526	540510	Energy		
		128.47	751125	540510	Energy		
		740.04	751224	540510	Energy		
		1,830.62	751810	540510	Energy		
		11,071.36	751830	540510	Energy		
		1,589.58	751810	678800	District Sprayfield		
		-30,875.26	751101	540511	Energy-Solar		
		-4,354.20	751127	540511	Energy-Solar		
		-4,354.21	751128	540511	Energy-Solar		
		CHECK 114949 TOTAL:					175,686.82

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
				INVOICE DTL DESC				
114950	06/23/2026	PRTD	2957	SOUTHERN CALIFORNIA EDISON (M-BIL 57161/052626	05/26/2026		062326	42,905.26
Invoice: 57161/052626				42,905.26 751820 540510	RLV COMPOST PLNT 4/24-5/25/26 225,317KH Energy			
Invoice: 45743/060226				38,096.74 751127 540510	06/02/2026		062326	76,193.47
				38,096.73 751128 540510	RW P/S 5/1-6/01/26 376,125 KH Energy Energy			
				CHECK 114950 TOTAL:				119,098.73
114951	06/23/2026	PRTD	2958	SOUTHERN CALIFORNIA GAS CO (M-bil 18121142006/060926	06/09/2026		062326	293.75
Invoice: 18121142006/060926				293.75 751820 540530	RANCHO 5/5-6/5/26 133 THERMS Gas			
Invoice: 14241394924/061126				18.27 101600 540530	06/11/2026		062326	18.27
					WLK P/S 5/7-6/9/26 1 THERMS Gas			
Invoice: 03001136005/060926				1,687.75 701001 540530	06/09/2026		062326	2,250.33
				562.58 701002 540530	HQ & OPS 5/5-6/5/26 1,660 THERMS Gas Gas			
Invoice: 01951140001/060926				668.94 751810 540530	06/09/2026		062326	668.94
					TAPIA 5/5-6/5/26 377 THERMS Gas			
Invoice: 05721104007/060926				15.29 101110 540530	06/09/2026		062326	15.29
					CORNELL 5/5-6/5/26 0 THERMS Gas			
				CHECK 114951 TOTAL:				3,246.58
114952	06/23/2026	PRTD	30534	TAIT ENVIRONMENTAL SERVICES, INC. 971497	06/08/2026		062326	410.00
Invoice: 971497				410.00 701525 551500	INSPECTION 5/27/26 Outside Services			
				CHECK 114952 TOTAL:				410.00
114953	06/23/2026	PRTD	30682	TALLEY, INC. 10471777	06/03/2026		062326	746.62
Invoice: 10471777				746.62 751820 551000	ANTENNA CABLE/PARTS Supplies/Material			
				CHECK 114953 TOTAL:				746.62

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
				INVOICE DTL DESC				
114954	06/23/2026	PRTD	21137	TESLA, INC.	41583277	06/02/2026	062326	16,419.48
Invoice: 41583277				8,209.74	751127	540511	RW P/S MAY 2026 SOLAR 156,376.000 KWH	
				8,209.74	751128	540511	Energy-Solar	
				CHECK				114954 TOTAL:
								16,419.48
114955	06/23/2026	PRTD	19135	TRANSUNION RISK AND ALTERNATIVE D	974571-202605-1	06/01/2026	062326	160.00
Invoice: 974571-202605-1				160.00	701221	620000	SSN VERIFICATION MAY 2026	
								Forms, Supplies And Postage
				CHECK				114955 TOTAL:
								160.00
114956	06/23/2026	PRTD	30159	TRILLIUM HOLDCO LLC	580290	05/29/2026	062326	37,468.53
Invoice: 580290				37,468.53	751101	540511	ELEC CHARGES SOLAR APRIL 2026	
								Energy-Solar
				CHECK				114956 TOTAL:
								37,468.53
114957	06/23/2026	PRTD	8764	UNITED RIBBON COMPANY, INC.	5603979	05/29/2026	062326	250.10
Invoice: 5603979				250.10	701121	620000	TONER FOR NANCY L.	
								Forms, Supplies And Postage
				CHECK				114957 TOTAL:
								250.10
114958	06/23/2026	PRTD	20935	US METRO GROUP, INC.	111623	05/31/2026	062326	15,567.38
Invoice: 111623				7,670.79	701001	551500	JANITORIAL SRV MAY 2026	
				3,336.79	701002	551500	Outside Services	
				311.84	101600	551800	Outside Services	
				926.73	751750	551800	Building Maintenance	
				1,713.14	751810	551800	Building Maintenance	
				1,608.09	751820	551800	Building Maintenance	
				CHECK				114958 TOTAL:
								15,567.38
114959	06/23/2026	PRTD	2701	GRAINGER	9920726271	05/18/2026	062326	95.70
Invoice: 9920726271				95.70	101900	572500	FLANGE GASKET	
								Genl Supplies/Small Tools
Invoice: 9926925679				302.24	701526	623000	05/22/2026	062326
								302.24
								ELECTRICAL SUPPLIES
								Safety Equipment
Invoice: 9926925687				302.24	701526	623000	05/22/2026	062326
								385.89
								ARC FLASH HEAD PROTECTION KIT

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
				INVOICE	DTL	DESC		
				385.89 701526	623000	Safety Equipment		
Invoice: 9928602326				9928602326	05/26/2026	062326	45.17	
				45.17 701002	551000	PRESSURE GAUGE & FLUSH PANEL Supplies/Material		
Invoice: 9928786160				9928786160	05/26/2026	062326	55.03	
				55.03 701526	572500	CARRYING CASE Genl Supplies/Small Tools		
Invoice: 9930184453				9930184453	05/27/2026	062326	84.18	
				84.18 701322	572500	HEX NUTS & USS WASHERS Genl Supplies/Small Tools		
				CHECK 114959 TOTAL:				968.21
114960 06/23/2026 PRD Invoice: 000406				4707 WATER RESEARCH FOUNDATION	000406	06/02/2026	062326	21,368.55
				21,368.55 701121	710500	UTILITY MBRSH 8/1/2026-7/31/2027 Dues, Subsc & Memberships		
				CHECK 114960 TOTAL:				21,368.55
				NUMBER OF CHECKS	61	*** CASH ACCOUNT TOTAL ***		
								1,394,363.26
						COUNT	AMOUNT	
TOTAL PRINTED CHECKS						49	712,442.67	
TOTAL EFT'S						12	681,920.59	
				*** GRAND TOTAL ***				1,394,363.26

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

CLERK: 3296tchau

YEAR	PER	JNL	SRC	ACCOUNT	EFF	DATE	JNL	DESC	REF 1	REF 2	REF 3	ACCOUNT	DESC	T	OB	DEBIT	CREDIT
												LINE	DESC				
2026	12	458															
APP	701-200000												Accounts Payable			198,753.94	
	06/23/2026	062326							062326				AP CASH DISBURSEMENTS JOURNAL				
APP	999-100100												Cash-General				1,394,363.26
	06/23/2026	062326							062326				AP CASH DISBURSEMENTS JOURNAL				
APP	751-200000												Accounts Payable			285,502.22	
	06/23/2026	062326							062326				AP CASH DISBURSEMENTS JOURNAL				
APP	101-200000												Accounts Payable			312,854.69	
	06/23/2026	062326							062326				AP CASH DISBURSEMENTS JOURNAL				
APP	754-200000												Accounts Payable			499,834.23	
	06/23/2026	062326							062326				AP CASH DISBURSEMENTS JOURNAL				
APP	130-200000												Accounts Payable			40,142.16	
	06/23/2026	062326							062326				AP CASH DISBURSEMENTS JOURNAL				
APP	301-200000												Accounts Payable			56,443.08	
	06/23/2026	062326							062326				AP CASH DISBURSEMENTS JOURNAL				
APP	102-200000												Accounts Payable			832.94	
	06/23/2026	062326							062326				AP CASH DISBURSEMENTS JOURNAL				
													GENERAL LEDGER TOTAL			1,394,363.26	1,394,363.26
APP	999-207010												Due to/Due From Internal Svs			198,753.94	
	06/23/2026	062326							062326								
APP	701-100100												Cash-General				198,753.94
	06/23/2026	062326							062326								
APP	999-207510												Due to/Due From JPA Operations			285,502.22	
	06/23/2026	062326							062326								
APP	751-100100												Cash-General				285,502.22
	06/23/2026	062326							062326								
APP	999-201010												Due to/Due Frm Potable Wtr Ops			312,854.69	
	06/23/2026	062326							062326								
APP	101-100100												Cash-General				312,854.69
	06/23/2026	062326							062326								
APP	999-207540												Due to/Due From JPA Replacement			499,834.23	
	06/23/2026	062326							062326								
APP	754-100100												Cash-General				499,834.23
	06/23/2026	062326							062326								
APP	999-201300												Due to/Due Frm Sanitation Ops			40,142.16	
	06/23/2026	062326							062326								
APP	130-100100												Cash-General				40,142.16
	06/23/2026	062326							062326								
APP	999-203010												Due to/Due Frm Potable Wtr Rep			56,443.08	
	06/23/2026	062326							062326								
APP	301-100100												Cash-General				56,443.08
	06/23/2026	062326							062326								
APP	999-201020												Due to/Due Frm Rec'd Wtr Ops			832.94	
	06/23/2026	062326							062326								
APP	102-100100												Cash-General				832.94

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

YEAR	PER	JNL					ACCOUNT DESC	T	OB	DEBIT	CREDIT
SRC	ACCOUNT	EFF DATE	JNL DESC	REF 1	REF 2	REF 3	LINE DESC				
		06/23/2026	062326	062326							
							SYSTEM GENERATED ENTRIES TOTAL			1,394,363.26	1,394,363.26
							JOURNAL 2026/12/458 TOTAL			2,788,726.52	2,788,726.52

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND	YEAR PER	JNL	EFF DATE	ACCOUNT DESCRIPTION	DEBIT	CREDIT
ACCOUNT						
101 Potable Water Operations	2026 12	458	06/23/2026	Cash-General		312,854.69
101-100100				Accounts Payable	312,854.69	
101-200000						
				FUND TOTAL	312,854.69	312,854.69
102 Recycled Water Operations	2026 12	458	06/23/2026	Cash-General		832.94
102-100100				Accounts Payable	832.94	
102-200000						
				FUND TOTAL	832.94	832.94
130 Sanitation Operations	2026 12	458	06/23/2026	Cash-General		40,142.16
130-100100				Accounts Payable	40,142.16	
130-200000						
				FUND TOTAL	40,142.16	40,142.16
301 Potable Wtr Replacement Fund	2026 12	458	06/23/2026	Cash-General		56,443.08
301-100100				Accounts Payable	56,443.08	
301-200000						
				FUND TOTAL	56,443.08	56,443.08
701 Internal Service Fund	2026 12	458	06/23/2026	Cash-General		198,753.94
701-100100				Accounts Payable	198,753.94	
701-200000						
				FUND TOTAL	198,753.94	198,753.94
751 JPA Operations	2026 12	458	06/23/2026	Cash-General		285,502.22
751-100100				Accounts Payable	285,502.22	
751-200000						
				FUND TOTAL	285,502.22	285,502.22
754 JPA Replacement	2026 12	458	06/23/2026	Cash-General		499,834.23
754-100100				Accounts Payable	499,834.23	
754-200000						
				FUND TOTAL	499,834.23	499,834.23
999 Pooled Cash	2026 12	458	06/23/2026	Cash-General		1,394,363.26
999-100100				Due to/Due Frm Potable Wtr Ops	312,854.69	
999-201010				Due to/Due Frm Recl Wtr Ops	832.94	
999-201020				Due to/Due Frm Sanitation Ops	40,142.16	
999-201300				Due to/Due Frm Potable Wtr Repl	56,443.08	
999-203010				Due to/Due From Internal Svs	198,753.94	
999-207010						

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND	YEAR	PER	JNL	EFF	DATE	ACCOUNT DESCRIPTION	DEBIT	CREDIT
ACCOUNT								
999-207510						Due to/Due FromJPA Operations	285,502.22	
999-207540						Due to/Due FromJPA Replacement	499,834.23	
						FUND TOTAL	1,394,363.26	1,394,363.26

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND		DUE TO	DUE FR
101	Potable Water Operations		312,854.69
102	Recycled Water Operations		832.94
130	Sanitation Operations		40,142.16
301	Potable Wtr Replacement Fund		56,443.08
701	Internal Service Fund		198,753.94
751	JPA Operations		285,502.22
754	JPA Replacement		499,834.23
999	Pooled Cash		
		1,394,363.26	
TOTAL		1,394,363.26	1,394,363.26

** END OF REPORT - Generated by Thieu Chau **

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

		INVOICE		INV DATE	PO	CHECK RUN	NET
		INVOICE DTL DESC					
114961	06/23/2026	PRTD	3514	LOS ANGELES COUNTY, REGISTRAR-REC	NOE CONDUIT	P/S	25.00
		Invoice: NOE CONDUIT P/S		06/16/2026	062326C		
				NOE CONDUIT PUMP STATION IMPROVEMENTS			
				Outside Services			
		25.00	101700	551500			
				CHECK	114961	TOTAL:	25.00
				NUMBER OF CHECKS	1	*** CASH ACCOUNT TOTAL ***	25.00
						COUNT	AMOUNT
						1	25.00
						TOTAL PRINTED CHECKS	
						*** GRAND TOTAL ***	25.00

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

CLERK: 3296tchau

YEAR	PER	JNL	SRC	ACCOUNT	JNL	DESC	REF 1	REF 2	REF 3	ACCOUNT	DESC	T	OB	DEBIT	CREDIT
	EFF	DATE								LINE	DESC				
2026	12	461													
APP	101-200000	06/23/2026	062326C	062326							Accounts Payable			25.00	
											AP CASH DISBURSEMENTS JOURNAL				
APP	999-100100	06/23/2026	062326C	062326							Cash-General				25.00
											AP CASH DISBURSEMENTS JOURNAL				
											GENERAL LEDGER TOTAL			25.00	25.00
APP	999-201010	06/23/2026	062326C	062326							Due to/Due Frm Potable Wtr Ops			25.00	
APP	101-100100	06/23/2026	062326C	062326							Cash-General				25.00
											SYSTEM GENERATED ENTRIES TOTAL			25.00	25.00
											JOURNAL 2026/12/461 TOTAL			50.00	50.00

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND	ACCOUNT	YEAR	PER	JNL	EFF DATE	ACCOUNT DESCRIPTION	DEBIT	CREDIT
101	Potable water operations	2026	12	461	06/23/2026			
	101-100100					Cash-General		25.00
	101-200000					Accounts Payable	25.00	
						FUND TOTAL	25.00	25.00
999	Pooled Cash	2026	12	461	06/23/2026			
	999-100100					Cash-General		25.00
	999-201010					Due to/Due Frm Potable Wtr Ops	25.00	
						FUND TOTAL	25.00	25.00

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND		DUE TO	DUE FR
101	Potable Water Operations		25.00
999	Pooled Cash	25.00	
TOTAL		25.00	25.00

** END OF REPORT - Generated by Thieu Chau **

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
				INVOICE DTL	DESC			
1288	06/30/2026	EFT	2654 FAMCON PIPE	S100182201.001	06/01/2026		063026	1,335.44
Invoice: S100182201.001				1,335.44	101700	551000	MEGA-LUG KIT, FLANGED 90 DEG BEND & SPOOL Supplies/Material	
				CHECK		1288	TOTAL:	1,335.44
1289	06/30/2026	EFT	19397 DAIOHS USA INC.	SF-1377026	06/16/2026		063026	122.98
Invoice: SF-1377026				122.98	701410	620000	JUNE 2026 COFFEE SRVC - HQ Forms, Supplies And Postage	
Invoice: SF-1377027				121.34	701410	620000	JUNE 2026 COFFEE SRVC - OPS Forms, Supplies And Postage	121.34
Invoice: SF-1377028				83.16	701410	620000	JUNE 2026 COFFEE SRVC - RLV Forms, Supplies And Postage	83.16
Invoice: SF-1377029				136.39	701410	620000	JUNE 2026 COFFEE SRVC - TAPIA Forms, Supplies And Postage	136.39
				CHECK		1289	TOTAL:	463.87
1290	06/30/2026	EFT	20856 INTERNATIONAL PRINTING & TYPESETT	23826	04/16/2026		063026	184.38
Invoice: 23826				184.38	701125	680000	DISTRICT VEHICLE ACCIDENT REPORT FORMS Safety	
				CHECK		1290	TOTAL:	184.38
1291	06/30/2026	EFT	21659 ONTARIO REFRIGERATION SERVICE, IN	GW36400A	04/16/2026		063026	85.00
Invoice: GW36400A				85.00	101100	551500	SHORT PD INV#GW36400A Outside Services	
				CHECK		1291	TOTAL:	85.00
1292	06/30/2026	EFT	3035 VWR SCIENTIFIC	8821845158	06/09/2026		063026	85.06
Invoice: 8821845158				85.06	701341	551000	NITRILE GLOVES Supplies/Material	
Invoice: 8821845155				261.21	701341	551000	NITRILE GLOVES Supplies/Material	261.21
				CHECK		1292	TOTAL:	346.27

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
				INVOICE DTL DESC				
1293	06/30/2026	PRTD	2317	STRICKBINE PUBLISHING, INC	2026-185239			
		Invoice: 2026-185239		576.00	101900	660400	06/05/2026 063026	576.00
							1/4 DISPLAY AD - WATER QUALITY REPORT 6/5/26 Public Education Programs	
							CHECK 1293 TOTAL:	576.00
1294	06/30/2026	PRTD	2814	MCMaster-CARR SUPPLY CO	66286484			
		Invoice: 66286484		344.29	101100	551000	06/08/2026 063026	344.29
							ELECTRICAL SUPPLIES Supplies/Material	
		Invoice: 66296737		1,168.34	751810	551000	06/08/2026 063026	1,168.34
							FACILITIES SUPPLIES Supplies/Material	
		Invoice: 66436585		3,336.97	301440	900000	06/09/2026 063026	3,336.97
							ELECTRICAL SUPPLIES Capital Asset Expenses	
							CHECK 1294 TOTAL:	4,849.60
1295	06/30/2026	PRTD	30387	CINTAS CORPORATION NO. 3	4269593631			
		Invoice: 4269593631		44.90	101600	551000	05/19/2026 063026	159.80
				114.90	701999	731600	MAY 2026 UNIFORMS/MATS/TOWELS Supplies/Material Uniforms	
		Invoice: 4269761980		109.32	751810	551000	05/20/2026 063026	294.78
				185.46	701999	731600	MAY 2026 UNIFORMS/MATS/TOWELS Supplies/Material Uniforms	
		Invoice: 4269923765		83.66	751820	551000	05/21/2026 063026	188.68
				105.02	701999	731600	MAY 2026 UNIFORMS/MATS/TOWELS Supplies/Material Uniforms	
		Invoice: 4270203641		41.89	101600	551000	05/26/2026 063026	159.80
				117.91	701999	731600	MAY 2026 UNIFORMS/MATS/TOWELS Supplies/Material Uniforms	
		Invoice: 4270394156		109.32	751810	551000	05/27/2026 063026	288.42
				179.10	701999	731600	MAY 2026 UNIFORMS/MATS/TOWELS Supplies/Material Uniforms	
		Invoice: 4270773821		121.04	701002	551000	05/29/2026 063026	783.98
				662.94	701999	731600	MAY 2026 UNIFORMS/MATS/TOWELS Supplies/Material Uniforms	

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC								
Invoice: 4270773079	CINTAS CORPORATION NO. 3	4270773079			05/29/2026		063026	188.68
	83.66 751820 551000			MAY 2026 UNIFORMS/MATS/TOWELS				
	105.02 701999 731600			Supplies/Material				
				Uniforms				
Invoice: 4271089863	CINTAS CORPORATION NO. 3	4271089863			06/02/2026		063026	159.80
	41.89 101600 551000			JUNE 2026 UNIFORMS/MATS/TOWELS				
	117.91 701999 731600			Supplies/Material				
				Uniforms				
Invoice: 4271259524	CINTAS CORPORATION NO. 3	4271259524			06/03/2026		063026	287.46
	109.32 751810 551000			JUNE 2026 UNIFORMS/MATS/TOWELS				
	178.14 701999 731600			Supplies/Material				
				Uniforms				
Invoice: 4271423312	CINTAS CORPORATION NO. 3	4271423312			06/04/2026		063026	188.68
	83.66 751820 551000			JUNE 2026 UNIFORMS/MATS/TOWELS				
	105.02 701999 731600			Supplies/Material				
				Uniforms				
Invoice: 4271849627	CINTAS CORPORATION NO. 3	4271849627			06/09/2026		063026	159.80
	41.89 101600 551000			JUNE 2026 UNIFORMS/MATS/TOWELS				
	117.91 701999 731600			Supplies/Material				
				Uniforms				
Invoice: 4272016539	CINTAS CORPORATION NO. 3	4272016539			06/10/2026		063026	287.46
	109.32 751810 551000			MAY 2026 UNIFORMS/MATS/TOWELS				
	178.14 701999 731600			Supplies/Material				
				Uniforms				
Invoice: 4272176350	CINTAS CORPORATION NO. 3	4272176350			06/11/2026		063026	188.68
	83.66 751820 551000			JUNE 2026 UNIFORMS/MATS/TOWELS				
	105.02 701999 731600			Supplies/Material				
				Uniforms				
CHECK 1295 TOTAL:								3,336.02
114962 06/30/2026 PRD 19269 ACC BUSINESS		5076007113			06/11/2026		063026	1,032.64
Invoice: 5076007113				INTERNET SVCS 5/11 - 06/10/26				
	103.26 101600 540520			Telephone				
	103.26 751820 540520			Telephone				
	309.79 751810 540520			Telephone				
	258.16 701001 540520			Telephone				
	258.17 701002 540520			Telephone				
CHECK 114962 TOTAL:								1,032.64

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC								
114963	06/30/2026	PRTD	2355	ALFA LAVAL INC.	284188082	06/01/2026	2260187 063026	1,211.19
Invoice: 284188082				1,211.19 751820 551000	CENTRIFUGE OEM PARTS FOR RANCHO Supplies/Material			
CHECK 114963 TOTAL:								1,211.19
114964	06/30/2026	PRTD	30729	AMAZON CAPITAL SERVICES, INC.	1K9N-Q3XT-VK31	06/10/2026	063026	64.64
Invoice: 1K9N-Q3XT-VK31				64.64 701525 551000	CONDUIT CARRIER KIT FIT Supplies/Material			
Invoice: 1KQ9-DJPD-PRMT				27.95 701525 551000	FIRE EXTINGUISHER MONTHLY INSPECTION TAGS Supplies/Material			27.95
Invoice: 1NFK-FR11-Q39W				559.08 751820 551000	ZENIPLEX EP#2 Supplies/Material			559.08
Invoice: 1P7J-CDXM-DCRX				50.96 101600 541000	NITRILE GLOVES & USB C CABLES Supplies/Material			50.96
Invoice: 1P7J-CDXM-YTKK				263.20 751750 541000	REPLACEMENT FILTER FOR CS-2500 WTR FILTRATN SYSTEM Supplies			263.20
Invoice: 1PPW-TYVC-4HTF				263.39 701525 551000	REAL TRUCK BACKRACK Supplies/Material			263.39
Invoice: 1QJR-4MRK-9LCG				11.26 751820 551000	LITHIUM BATTERIES Supplies/Material			11.26
Invoice: 1WR6-FVTJ-W9QH				217.53 701521 572500	WATERPROOF TDS POCKET TESTER KIT Genl Supplies/Small Tools			217.53
Invoice: 1XDX-9W3T-97G4				13.30 701526 572500	3V LITHIUM COIN BATTERIES & ALKALINE BATTERIES Genl Supplies/Small Tools			13.30
Invoice: 144M-R6GD-1DQQ				456.24 751810 551000	GARVEE PORTABLE PIPE STAND Supplies/Material			456.24
Invoice: 1XWK-KC9N-CNJH				466.02 701525 551000	STROBE LIGHT BAR, EXTENSN CABLES & LIGHT BAR BRAKT Supplies/Material			466.02

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
				INVOICE DTL DESC				
Invoice: 1Q7Y-KRCD-4GW4			AMAZON CAPITAL SERVICES, INC.	1Q7Y-KRCD-4GW4	06/23/2026		063026	36.63
	36.63	701525		551000	V-BELT & THERMO ARMOR FIRE SLEEVE			
					Supplies/Material			
Invoice: 14KL-CDQJ-794X			AMAZON CAPITAL SERVICES, INC.	14KL-CDQJ-794X	06/22/2026		063026	59.02
	59.02	701525		551000	LED BACKUP LIGHT KIT			
					Supplies/Material			
Invoice: 16CT-4PNC-Y616			AMAZON CAPITAL SERVICES, INC.	16CT-4PNC-Y616	06/12/2026		063026	96.50
	96.50	701420		620000	KEYBOARD & MOUSE			
					Forms, Supplies And Postage			
Invoice: 19KH-7JYN-3XW7			AMAZON CAPITAL SERVICES, INC.	19KH-7JYN-3XW7	06/23/2026		063026	10.40
	10.40	701525		551000	BUNGEE CORDS WITH HOOKS			
					Supplies/Material			
Invoice: 193J-YCRD-RX9F			AMAZON CAPITAL SERVICES, INC.	193J-YCRD-RX9F	06/10/2026		063026	234.29
	234.29	701525		551000	FIRE EXTINGUISHER TAGS & REPLACEMT			
					Supplies/Material			
Invoice: 1J4P-JPF4-DVLV			AMAZON CAPITAL SERVICES, INC.	1J4P-JPF4-DVLV	06/23/2026		063026	443.09
	443.09	701420		620000	HP LASERJET CE516A TRANSFER KIT			
					Forms, Supplies And Postage			
Invoice: 1WR6-FVTJ-DFTF			AMAZON CAPITAL SERVICES, INC.	1WR6-FVTJ-DFTF	06/15/2026		063026	74.22
	74.22	701410		620000	STAPLE CARTRIDGE			
					Forms, Supplies And Postage			
Invoice: 14C9-1GMQ-K6YT			AMAZON CAPITAL SERVICES, INC.	14C9-1GMQ-K6YT	06/23/2026		063026	497.04
	497.04	101600		541000	STAINLESS STEEL CABLE & DBL SHACKLE SWIVEL			
					Supplies/Material			
CHECK 114964 TOTAL:								3,844.76
114965 06/30/2026 PRD			30907 AMERICAN BUSINESS BANK	39155	05/11/2026		063026	2,875.00
Invoice: 39155					ESCROW NO.8088802 RETENTION FOR PROGRESS PYMT #16			
	2,875.00	301		201000	Contract Retainage			
CHECK 114965 TOTAL:								2,875.00
114966 06/30/2026 PRD			31152 AMERICAN COMPRESSOR COMPANY INC.	260326-B	05/08/2026	2260202	063026	7,321.97
Invoice: 260326-B					BLOWER SHAFT AND REPAIR KIT			
	7,321.97	701525		551000	Supplies/Material			
CHECK 114966 TOTAL:								7,321.97
114967 06/30/2026 PRD			30711 ANIMAL & INSECT PEST MANAGEMENT I	258183	06/01/2026		063026	579.00
Invoice: 258183					BEE INSPECTION 3767 PATRICK HENRY PL.			
	579.00	701224		551500	Outside Services			

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC								
					CHECK	114967	TOTAL:	579.00
114968	06/30/2026	PRTD	30083	AQUATIC GARDENS LLC	16076	06/25/2026	063026	222.85
				Invoice: 16076		POND MAINT JUNE 2026		
				222.85	701001	551500	Outside Services	
					CHECK	114968	TOTAL:	222.85
114969	06/30/2026	PRTD	30989	ARELLANO ASSOCIATES, INC.	24074	06/05/2026	063026	19,012.38
				Invoice: 24074		PWP OUTREACH SVCS MAY 2026		
				19,012.38	751840	660600	Community Group Outreach	
					CHECK	114969	TOTAL:	19,012.38
114970	06/30/2026	PRTD	31114	BADGER METER, INC.	1811929	06/11/2026	063026	1,023.32
				Invoice: 1811929		SMART COVER SEWER SYSTEM MONITORING/WARRANTY		
				1,023.32	751800	551000	Supplies/Material	
					CHECK	114970	TOTAL:	1,023.32
114971	06/30/2026	PRTD	31165	BLACK CAT WATER INC	098985/060926	06/09/2026	063026	1,290.40
				Invoice: 098985/060926		REFUND ON CLOSED ACCT#0010003561-098985		
				1,290.40	101	230500	Deposit Refd Clearing-Billing	
					CHECK	114971	TOTAL:	1,290.40
114972	06/30/2026	PRTD	8091	BROWN AND CALDWELL	45604536	06/12/2026	063026	4,799.74
				Invoice: 45604536		RLV FLARE WASTE GAS FLARE 4/24-5/21/26		
				4,799.74	754440	900000	Capital Asset Expenses	
					CHECK	114972	TOTAL:	4,799.74
114973	06/30/2026	PRTD	18533	CALIFORNIA LUTHERAN UNIVERSITY (C 526-001		05/26/2026	063026	3,600.00
				Invoice: 526-001		SUPERVISORY SKILLS TRAINING (8) EMPLYS		
				450.00	701125	683000	Training & Professional Devel	
				450.00	701125	683000	Training & Professional Devel	
				450.00	701125	683000	Training & Professional Devel	
				450.00	701125	683000	Training & Professional Devel	
				450.00	701125	683000	Training & Professional Devel	
				450.00	701125	683000	Training & Professional Devel	
				450.00	701125	683000	Training & Professional Devel	
				450.00	701125	683000	Training & Professional Devel	

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC								
					CHECK	114973	TOTAL:	3,600.00
114974	06/30/2026	PRTD	5405 CALOLYMPIC GLOVE SAFETY	3005300	06/10/2026	2260215	063026	2,014.98
Invoice: 3005300				2,014.98 701	132000	PPE ITEMS Storeroom & Truck Inventory		
					CHECK	114974	TOTAL:	2,014.98
114975	06/30/2026	PRTD	20655 CANNON CORPORATION	96042	05/20/2026		063026	19,840.50
Invoice: 96042				19,840.50 301440	900000	TWIN LK, DARDENE, OAKRDG TANK REHAB APRIL 2026 Capital Asset Expenses		
Invoice: 96196					96196	06/16/2026		63.50
				63.50 301440	900000	JED SMITH, MCCOY TNK REHAB MAY 2026 Capital Asset Expenses		
					CHECK	114975	TOTAL:	19,904.00
114976	06/30/2026	PRTD	31097 CHANNEL ISLANDS RESTORATION	26LVMWD03	05/31/2026		063026	2,201.75
Invoice: 26LVMWD03				2,201.75 751800	551500	WEED ABATEMENT MAY 2026 Outside Services		
					CHECK	114976	TOTAL:	2,201.75
114977	06/30/2026	PRTD	2536 CITY OF LOS ANGELES	WP260000145	06/09/2026		063026	56,265.76
Invoice: WP260000145				56,265.76 130100	574000	ASSFC EL CANON FY2025-26 Purch Svc-City of LA		
					CHECK	114977	TOTAL:	56,265.76
114978	06/30/2026	PRTD	31038 CLARK LAND RESOURCES, INC.	LVMWD 0526-03	06/05/2026		063026	1,220.00
Invoice: LVMWD 0526-03				1,220.00 330440	900000	ON CALL SVCS EL CANON L/S REHAB MAY 2026 Capital Asset Expenses		
Invoice: LVMWD 0526-01					LVMWD 0526-01	06/08/2026		38,071.86
				38,071.86 754440	900000	ON CALL SVCS PWP MAY 2026 Capital Asset Expenses		
					CHECK	114978	TOTAL:	39,291.86
114979	06/30/2026	PRTD	16821 CLEAN SWEEP SUPPLY CO., INC	638058	06/03/2026	2260224	063026	210.50
Invoice: 638058				210.50 701	132000	JANITORIAL SUPPLIES Storeroom & Truck Inventory		

CASH ACCOUNT: 999	100100	Cash-General
CHECK NO	CHK DATE	TYPE VENDOR NAME

Report generated: 06/30/2026 07:30
User: 3296tchau
Program ID: apcshdsb

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
				INVOICE DTL DESC				
114985	06/30/2026	PRTD	2655 FERGUSON WATERWORKS #1089	0078196	06/08/2026	2260225	063026	853.86
			Invoice: 0078196					
			853.86 701	132000	SERVICE SADDLE			
					Storeroom & Truck Inventory			
					CHECK	114985	TOTAL:	853.86
114986	06/30/2026	PRTD	30780 FLOW SCIENCE INCORPORATED	9761	06/01/2026		063026	2,875.00
			Invoice: 9761					
			2,875.00 754440	900000	HYDRODYNAMIC MDLNG/ANLYS MAY 2026			
					Capital Asset Expenses			
					CHECK	114986	TOTAL:	2,875.00
114987	06/30/2026	PRTD	6770 G.I. INDUSTRIES	3206512-0283-2	06/16/2026		063026	3,079.99
			Invoice: 3206512-0283-2					
			3,079.99 701002	551500	25 YD ROLLOFF DISP 6/1-6/15/26			
					Outside Services			
					CHECK	114987	TOTAL:	3,079.99
114988	06/30/2026	PRTD	30364 GEOTAB USA, INC.	IN493764	05/31/2026		063026	18.50
			Invoice: IN493764					
			18.50 701526	622500	MONTHLY MONITORING/REPORTING FEE 1 UNIT			
					Radio Maintenance Expense			
					CHECK	114988	TOTAL:	18.50
114989	06/30/2026	PRTD	31115 GILLIS PANICHAPAN ARCHITECTS, INC 109254J		06/01/2026		063026	20,235.10
			Invoice: 109254J					
			20,235.10 701520	651600	EMPLOYEE WRKPLACE SPACE NEEDS ASSESSMT MAY 2026			
					Other Professional Serv			
					CHECK	114989	TOTAL:	20,235.10
114990	06/30/2026	PRTD	8304 IFM EFECTOR INC.	42212628	06/09/2026		063026	634.75
			Invoice: 42212628					
			634.75 751820	551000	IFM FLOWSWITCH			
					Supplies/Material			
					CHECK	114990	TOTAL:	634.75
114991	06/30/2026	PRTD	4144 INTERSTATE BATTERY SYSTEMS	130039222	05/08/2026		063026	353.71
			Invoice: 130039222					
			353.71 701525	551000	BATTERIES FOR FLEET VEHICLES			
					Supplies/Material			
			INTERSTATE BATTERY SYSTEMS	130039368	05/22/2026		063026	3,878.93
			Invoice: 130039368					
			3,878.93 701525	551000	BATTERIES FOR GENERATORS			
					Supplies/Material			
			INTERSTATE BATTERY SYSTEMS	120015563	06/10/2026		063026	-605.91

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
				INVOICE DTL DESC				
Invoice: 120015563				-605.91 701525 551000	CREDIT ON FINAL INVOICES Supplies/Material			
					CHECK	114991	TOTAL:	3,626.73
114992	06/30/2026	PRTD	21197 JACOBS ENGINEERING GROUP INC.	W9Y39300-24	06/17/2026	063026		1,216.00
Invoice: W9Y39300-24				1,216.00 701122 651600	PHASE 3 WHITE PAPER 3/28-4/24/26 Other Professional Serv			
					CHECK	114992	TOTAL:	1,216.00
114993	06/30/2026	PRTD	2611 LA DWP	5038501000/061726	06/17/2026	063026		46.00
Invoice: 5038501000/061726				46.00 101700 540510	RECTIFIER 5/18-6/17/26 Energy			
					CHECK	114993	TOTAL:	46.00
114994	06/30/2026	PRTD	30556 MALLORY SAFETY & SUPPLY LLC	6441638	06/10/2026	063026		542.86
Invoice: 6441638				542.86 751810 551000	CALIBRATION GAS FOR METERS Supplies/Material			
					CHECK	114994	TOTAL:	542.86
114995	06/30/2026	PRTD	31100 MAQPOWER COMPRESSORS CORP	18499	05/29/2026	2260216 063026		1,741.88
Invoice: 18499				1,741.88 701525 551500	KIT & VALVE Outside Services			
					CHECK	114995	TOTAL:	1,741.88
114996	06/30/2026	PRTD	14322 MILES CHEMICAL COMPANY, INC	775451	06/16/2026	063026		1,831.66
Invoice: 775451				1,831.66 751750 541000	53GL SOD.HYP., 750LB SULF.ACID & 52LB CAUSTIC SODA Supplies			
					CHECK	114996	TOTAL:	1,831.66
114997	06/30/2026	PRTD	30922 NORTH HILLS RECYCLING INC.	34213	06/12/2026	063026		1,731.86
Invoice: 34213				1,731.86 751820 541080	120 1/4 INCH WOOD CHIP BULK SUPPLY Amendment			
Invoice: 34214					06/12/2026	063026		1,731.86
				1,731.86 751820 541080	120 1/4 INCH WOOD CHIP BULK SUPPLY Amendment			
					CHECK	114997	TOTAL:	3,463.72

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

CHECK NO	CHK DATE	TYPE	VENDOR NAME	INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC								
114998	06/30/2026	PRTD	2302 ODP BUSINESS SOLUTIONS LLC	471397467001	06/04/2026		063026	59.25
Invoice: 471397467001				59.25 701410 620000	PAPER	Forms, Supplies And Postage		
			ODP BUSINESS SOLUTIONS LLC	472883394001	06/15/2026		063026	233.46
Invoice: 472883394001				233.46 701410 620000	PAPER	Forms, Supplies And Postage		
					CHECK	114998 TOTAL:		292.71
114999	06/30/2026	PRTD	18946 PACIFIC ADVANCED CIVIL ENGINEERIN	11936	05/31/2026		063026	3,709.00
Invoice: 11936				3,709.00 754440 900000	TAPIA BLOWER IMPRVMT PROJ	THRU 5/31/26		
					Capital Asset Expenses			
					CHECK	114999 TOTAL:		3,709.00
115000	06/30/2026	PRTD	18874 PACIFIC HYDROTECH CORPORATION	10655/PMT#13	02/19/2026		063026	925,423.50
Invoice: 10655/PMT#13				925,423.50 301440 900000	CORNELL P/S IMPROVEMENTS	JANUARY 2026		
					Capital Asset Expenses			
					CHECK	115000 TOTAL:		925,423.50
115001	06/30/2026	PRTD	20543 PUBLIC FINANCIAL MANAGEMENT, INC.	142172	05/21/2026		063026	90,401.22
Invoice: 142172				90,401.22 751840 850200	TRIUNFO JOINT PWR ATHRTY	12/5-12/8/25		
					Debt Issue Cost			
					CHECK	115001 TOTAL:		90,401.22
115002	06/30/2026	PRTD	30458 PIONEER AMERICAS, LLC (OLIN CORP)	900731323	06/10/2026		063026	9,203.47
Invoice: 900731323				9,203.47 751810 541014	4,834 GAL SODIUM HYPOCHLORITE			
					Sodium Hypochlorite			
			PIONEER AMERICAS, LLC (OLIN CORP)	900733987	06/16/2026		063026	9,298.67
Invoice: 900733987				9,298.67 751810 541014	4,884 GAL SODIUM HYPOCHLORITE			
					Sodium Hypochlorite			
					CHECK	115002 TOTAL:		18,502.14
115003	06/30/2026	PRTD	30336 PIPE TEC, INC.	16197	05/27/2026		063026	3,899.23
Invoice: 16197				3,899.23 130100 551500	CCTV INSPECTIONS	5/27/26		
					Outside Services			
			PIPE TEC, INC.	16198	05/28/2026		063026	3,899.23
Invoice: 16198				3,899.23 130100 551500	CCTV INSPECTIONS	5/28/26		
					Outside Services			

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC								
					CHECK	115003	TOTAL:	7,798.46
115004	06/30/2026	PRTD	2585 J. HARRIS INDUSTRIAL WATER TREATM	2420811	06/11/2026		063026	1,103.89
Invoice: 2420811				1,103.89 701341 551500	UV LAMP REPLACEMENT Outside Services			
					CHECK	115004	TOTAL:	1,103.89
115005	06/30/2026	PRTD	4586 ROYAL INDUSTRIAL SOLUTIONS	9009-1069920	06/08/2026		063026	1,848.03
Invoice: 9009-1069920				1,848.03 101100 551000	RELAYS 120 AND 24 VOLT Supplies/Material			
Invoice: 9009-1069833				ROYAL INDUSTRIAL SOLUTIONS 9009-1069833	06/17/2026		063026	1,945.04
				1,945.04 751820 551000	WIRE #8 AWG Supplies/Material			
					CHECK	115005	TOTAL:	3,793.07
115006	06/30/2026	PRTD	3006 UNDERGROUND SERVICE ALERT	520260441	06/01/2026		063026	607.70
Invoice: 520260441				607.70 101700 551500	278 TICKETS MAY 2026 Outside Services			
Invoice: 25-264003				UNDERGROUND SERVICE ALERT 25-264003	06/01/2026		063026	176.70
				176.70 101700 551500	DIG SAFE FEE MAY 2026 Outside Services			
					CHECK	115006	TOTAL:	784.40
115007	06/30/2026	PRTD	3022 VSS SALES INC.	030949	04/30/2026		063026	21,742.00
Invoice: 030949				21,742.00 751100 551500	PUMP REPAIRS 5/4/26 Outside Services			
					CHECK	115007	TOTAL:	21,742.00
115008	06/30/2026	PRTD	2701 GRAINGER	9936261453	06/02/2026		063026	182.05
Invoice: 9936261453				182.05 701526 623000	ELECTRICAL INSULATING GLOVE KIT & GLOVE LINER Safety Equipment			
Invoice: 9931703798				GRAINGER 9931703798	05/28/2026		063026	203.61
				203.61 101900 572500	TILE PROBE Genl Supplies/Small Tools			
Invoice: 9932253827				GRAINGER 9932253827	05/28/2026		063026	99.04
				99.04 701002 551000	COVER PLATE, WALL PATCH & SPACKLE Supplies/Material			
				GRAINGER 9936261461	06/02/2026		063026	260.93

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
				INVOICE DTL DESC				
Invoice: 9936261461				260.93 701526 572500	REPLACEMENT PIPE DIE Genl Supplies/Small Tools			
Invoice: 9936848556				526.27 701521 551000	06/02/2026		063026	526.27
				FUSE Supplies/Material				
Invoice: 9937309806				283.35 701526 572500	06/02/2026		063026	283.35
				TOOL TOTE & RECIPROCATING SAW Genl Supplies/Small Tools				
Invoice: 9938035392				377.46 701002 551000	06/03/2026		063026	377.46
				ELECTRICAL CLEANER Supplies/Material				
Invoice: 9939671443				140.83 701341 551000	06/04/2026		063026	140.83
				HANDHELD FLASHLIGHT Supplies/Material				
Invoice: 9940292239				347.03 101900 572500	06/04/2026		063026	347.03
				BARRICADE TAPE Genl Supplies/Small Tools				
Invoice: 9940753222				283.09 101900 572500	06/04/2026		063026	283.09
				ELECTRICAL CLEANER Genl Supplies/Small Tools				
				CHECK 115008 TOTAL:				2,703.66
115009 06/30/2026 PRD 31151 WELLS FARGO FINANCIAL LEASING, IN 5039039013				856.92 701420 620500	06/06/2026		063026	856.92
Invoice: 5039039013				SHARP COPIERS LEASE JUNE 2026 Equip Rental				
				CHECK 115009 TOTAL:				856.92
				NUMBER OF CHECKS	56	*** CASH ACCOUNT TOTAL ***		1,314,939.74
						COUNT	AMOUNT	
				TOTAL PRINTED CHECKS	51	51	1,312,524.78	
				TOTAL EFT'S	5	5	2,414.96	
				*** GRAND TOTAL ***				1,314,939.74

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

CLERK: 3296tchau

YEAR PER JNL SRC ACCOUNT	EFF DATE	JNL DESC	REF 1	REF 2	REF 3	ACCOUNT DESC LINE DESC	T OB	DEBIT	CREDIT
2026 12 552									
APP 101-200000	06/30/2026	063026	063026			Accounts Payable		26,671.01	
						AP CASH DISBURSEMENTS JOURNAL			
APP 999-100100	06/30/2026	063026	063026			Cash-General			1,314,939.74
						AP CASH DISBURSEMENTS JOURNAL			
APP 701-200000	06/30/2026	063026	063026			Accounts Payable		54,776.17	
						AP CASH DISBURSEMENTS JOURNAL			
APP 751-200000	06/30/2026	063026	063026			Accounts Payable		166,203.79	
						AP CASH DISBURSEMENTS JOURNAL			
APP 301-200000	06/30/2026	063026	063026			Accounts Payable		952,548.95	
						AP CASH DISBURSEMENTS JOURNAL			
APP 754-200000	06/30/2026	063026	063026			Accounts Payable		49,455.60	
						AP CASH DISBURSEMENTS JOURNAL			
APP 130-200000	06/30/2026	063026	063026			Accounts Payable		64,064.22	
						AP CASH DISBURSEMENTS JOURNAL			
APP 330-200000	06/30/2026	063026	063026			Accounts Payable		1,220.00	
						AP CASH DISBURSEMENTS JOURNAL			
GENERAL LEDGER TOTAL								1,314,939.74	1,314,939.74
APP 999-201010	06/30/2026	063026	063026			Due to/Due Frm Potable Wtr Ops		26,671.01	
APP 101-100100	06/30/2026	063026	063026			Cash-General			26,671.01
APP 999-207010	06/30/2026	063026	063026			Due to/Due FromInternal Svs		54,776.17	
APP 701-100100	06/30/2026	063026	063026			Cash-General			54,776.17
APP 999-207510	06/30/2026	063026	063026			Due to/Due FromJPA Operations		166,203.79	
APP 751-100100	06/30/2026	063026	063026			Cash-General			166,203.79
APP 999-203010	06/30/2026	063026	063026			Due to/Due FrmPotable Wtr Repl		952,548.95	
APP 301-100100	06/30/2026	063026	063026			Cash-General			952,548.95
APP 999-207540	06/30/2026	063026	063026			Due to/Due FromJPA Replacement		49,455.60	
APP 754-100100	06/30/2026	063026	063026			Cash-General			49,455.60
APP 999-201300	06/30/2026	063026	063026			Due to/Due FrmSanitation Ops		64,064.22	
APP 130-100100	06/30/2026	063026	063026			Cash-General			64,064.22
APP 999-203300	06/30/2026	063026	063026			Due to/Due FrmSanitat Replace		1,220.00	
APP 330-100100						Cash-General			1,220.00

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

YEAR	PER	JNL					ACCOUNT DESC	T	OB	DEBIT	CREDIT
SRC	ACCOUNT	EFF DATE	JNL DESC	REF 1	REF 2	REF 3	LINE DESC				
		06/30/2026	063026	063026							
							SYSTEM GENERATED ENTRIES TOTAL			1,314,939.74	1,314,939.74
							JOURNAL 2026/12/552 TOTAL			2,629,879.48	2,629,879.48

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND	YEAR PER	JNL	EFF DATE	ACCOUNT DESCRIPTION	DEBIT	CREDIT
ACCOUNT						
101 Potable Water Operations	2026 12	552	06/30/2026	Cash-General		26,671.01
101-100100				Accounts Payable	26,671.01	
101-200000						
				FUND TOTAL	26,671.01	26,671.01
130 Sanitation Operations	2026 12	552	06/30/2026	Cash-General		64,064.22
130-100100				Accounts Payable	64,064.22	
130-200000						
				FUND TOTAL	64,064.22	64,064.22
301 Potable Wtr Replacement Fund	2026 12	552	06/30/2026	Cash-General		952,548.95
301-100100				Accounts Payable	952,548.95	
301-200000						
				FUND TOTAL	952,548.95	952,548.95
330 Sanitation Replacement	2026 12	552	06/30/2026	Cash-General		1,220.00
330-100100				Accounts Payable	1,220.00	
330-200000						
				FUND TOTAL	1,220.00	1,220.00
701 Internal Service Fund	2026 12	552	06/30/2026	Cash-General		54,776.17
701-100100				Accounts Payable	54,776.17	
701-200000						
				FUND TOTAL	54,776.17	54,776.17
751 JPA Operations	2026 12	552	06/30/2026	Cash-General		166,203.79
751-100100				Accounts Payable	166,203.79	
751-200000						
				FUND TOTAL	166,203.79	166,203.79
754 JPA Replacement	2026 12	552	06/30/2026	Cash-General		49,455.60
754-100100				Accounts Payable	49,455.60	
754-200000						
				FUND TOTAL	49,455.60	49,455.60
999 Pooled Cash	2026 12	552	06/30/2026	Cash-General		1,314,939.74
999-100100				Due to/Due Frm Potable Wtr Ops	26,671.01	
999-201010				Due to/Due Frm Sanitation Ops	64,064.22	
999-201300				Due to/Due Frm Potable Wtr Repl	952,548.95	
999-203010				Due to/Due Frm Sanitat Replace	1,220.00	
999-203300				Due to/Due From Internal Svs	54,776.17	
999-207010						

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND	YEAR PER	JNL	EFF DATE	ACCOUNT DESCRIPTION	DEBIT	CREDIT
ACCOUNT						
999-207510				Due to/Due FromJPA Operations	166,203.79	
999-207540				Due to/Due FromJPA Replacement	49,455.60	
				FUND TOTAL	1,314,939.74	1,314,939.74

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND		DUE TO	DUE FR
101	Potable Water Operations		26,671.01
130	Sanitation Operations		64,064.22
301	Potable Wtr Replacement Fund		952,548.95
330	Sanitation Replacement		1,220.00
701	Internal Service Fund		54,776.17
751	JPA Operations		166,203.79
754	JPA Replacement		49,455.60
999	Pooled Cash		
		1,314,939.74	
TOTAL		1,314,939.74	1,314,939.74

** END OF REPORT - Generated by Thieu Chau **

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

		INVOICE		INV DATE	PO	CHECK RUN	NET
		INVOICE DTL DESC					
114257	03/10/2026	VOID 18874	PACIFIC HYDROTECH CORPORATION	10655/PMT#13	02/19/2026		-925,423.50
		Invoice: 10655/PMT#13		CORNELL P/S IMPROVEMENTS JANUARY 2026			
				Capital Asset Expenses			
				CHECK 114257 TOTAL:			-925,423.50
				NUMBER OF CHECKS 1 *** CASH ACCOUNT TOTAL ***			-925,423.50
				COUNT AMOUNT			
				TOTAL VOIDED CHECKS 1 925,423.50			
				*** GRAND TOTAL ***			-925,423.50

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

CLERK: 3296jcortez

YEAR	PER	JNL	SRC	ACCOUNT	EFF DATE	JNL DESC	REF 1	REF 2	REF 3	ACCOUNT DESC LINE DESC	T OB	DEBIT	CREDIT
2026	12	530											
APP	301-200000				06/29/2026	114257	062926			Accounts Payable			925,423.50
										AP CASH DISBURSEMENTS JOURNAL			
APP	999-100100				06/29/2026	114257	062926			Cash-General		925,423.50	
										AP CASH DISBURSEMENTS JOURNAL			
										GENERAL LEDGER TOTAL		925,423.50	925,423.50
APP	999-203010				06/29/2026	031026	062926			Due to/Due FrmPotable wtr Rep1			925,423.50
APP	301-100100				06/29/2026	031026	062926			Cash-General		925,423.50	
										SYSTEM GENERATED ENTRIES TOTAL		925,423.50	925,423.50
										JOURNAL 2026/12/530 TOTAL		1,850,847.00	1,850,847.00

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND	ACCOUNT	YEAR	PER	JNL	EFF DATE	ACCOUNT DESCRIPTION	DEBIT	CREDIT
301	Potable Wtr Replacement Fund	2026	12	530	06/29/2026			
	301-100100					Cash-General	925,423.50	
	301-200000					Accounts Payable		925,423.50
						FUND TOTAL	925,423.50	925,423.50
999	Pooled Cash	2026	12	530	06/29/2026			
	999-100100					Cash-General	925,423.50	
	999-203010					Due to/Due Frm Potable Wtr Repl		925,423.50
						FUND TOTAL	925,423.50	925,423.50

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND		DUE TO	DUE FR
301	Potable Wtr Replacement Fund		925,423.50
999	Pooled Cash	925,423.50	
TOTAL		925,423.50	925,423.50

** END OF REPORT - Generated by Jessica Cortez **

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

		INVOICE		INV DATE	PO	CHECK RUN	NET
		INVOICE DTL DESC					
26276	06/16/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5737442	05/28/2026	062326B	1,629.84
		Invoice: 5737442			PWP TEMP METER 4/29-5/28/26		
		1,629.84	754440	900000	Capital Asset Expenses		
				CHECK	26276	TOTAL:	1,629.84
		NUMBER OF CHECKS	1	*** CASH ACCOUNT TOTAL ***			1,629.84
				COUNT	AMOUNT		
		TOTAL MANUAL CHECKS	1	1,629.84			
				*** GRAND TOTAL ***			1,629.84

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

CLERK: 3296tchau

YEAR	PER	JNL	SRC	ACCOUNT	EFF DATE	JNL DESC	REF 1	REF 2	REF 3	ACCOUNT DESC LINE DESC	T	OB	DEBIT	CREDIT
2026	12	460												
APP	754-200000				06/23/2026	062326B	062326			Accounts Payable			1,629.84	
										AP CASH DISBURSEMENTS JOURNAL				
APP	999-100100				06/23/2026	062326B	062326			Cash-General				1,629.84
										AP CASH DISBURSEMENTS JOURNAL				
										GENERAL LEDGER TOTAL			1,629.84	1,629.84
APP	999-207540				06/23/2026	062326B	062326			Due to/Due FromJPA Replacement			1,629.84	
APP	754-100100				06/23/2026	062326B	062326			Cash-General				1,629.84
										SYSTEM GENERATED ENTRIES TOTAL			1,629.84	1,629.84
										JOURNAL 2026/12/460 TOTAL			3,259.68	3,259.68

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND	ACCOUNT	YEAR	PER	JNL	EFF DATE	ACCOUNT DESCRIPTION	DEBIT	CREDIT
754	JPA Replacement	2026	12	460	06/23/2026			
	754-100100					Cash-General		1,629.84
	754-200000					Accounts Payable	1,629.84	
						FUND TOTAL	1,629.84	1,629.84
999	Pooled Cash	2026	12	460	06/23/2026			
	999-100100					Cash-General		1,629.84
	999-207540					Due to/Due From JPA Replacement	1,629.84	
						FUND TOTAL	1,629.84	1,629.84

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND		DUE TO	DUE FR
754	JPA Replacement		1,629.84
999	Pooled Cash	1,629.84	
TOTAL		1,629.84	1,629.84

** END OF REPORT - Generated by Thieu Chau **

Las Virgenes Municipal Water District

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

					INVOICE	INV DATE	PO	CHECK RUN	NET
					INVOICE DTL	DESC			
26277	06/30/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5739944	5739944	06/12/2026		063026A	91.88
			Invoice: 5739944			JED SMITH P/S 5/5-6/5/26			
				91.88	101108	540540	Water		
							CHECK	26277 TOTAL:	91.88
26278	06/30/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5745344	5745344	06/12/2026		063026A	958.46
			Invoice: 5745344			TAPIA 5/5-6/5/26			
				958.46	751810	540540	Water		
							CHECK	26278 TOTAL:	958.46
26279	06/30/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5745410	5745410	06/12/2026		063026A	273.86
			Invoice: 5745410			RLV FARM 5/5-6/5/26			
				273.86	751830	540540	Water		
							CHECK	26279 TOTAL:	273.86
26280	06/30/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5745413	5745413	06/12/2026		063026A	670.27
			Invoice: 5745413			RLV 5/5-6/5/26			
				670.27	751820	540540	Water		
							CHECK	26280 TOTAL:	670.27
26281	06/30/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5745415	5745415	06/12/2026		063026A	58.79
			Invoice: 5745415			SOLAR LANDSCAPING 5/5-6/5/26			
				58.79	751820	540540	Water		
							CHECK	26281 TOTAL:	58.79
26282	06/30/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5745689	5745689	06/12/2026		063026A	477.38
			Invoice: 5745689			HQ PWP/DEMO 5/5-6/5/26			
				477.38	751750	540540	Water		
							CHECK	26282 TOTAL:	477.38
26283	06/30/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5745695	5745695	06/12/2026		063026A	42.66
			Invoice: 5745695			FIRE PRTC #8 5/5-6/5/26			
				42.66	701001	540540	Water		
							CHECK	26283 TOTAL:	42.66
26284	06/30/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5745696	5745696	06/12/2026		063026A	481.94
			Invoice: 5745696			HQ BLDG #8 5/5-6/5/26			
				481.94	701001	540540	Water		

Las Virgenes Municipal Water District



A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC								
					CHECK	26284	TOTAL:	481.94
26285	06/30/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5745700	06/12/2026		063026A	1,268.60
Invoice: 5745700				1,268.60 701002 540540	BLDG #7 5/5-6/5/26 Water			
					CHECK	26285	TOTAL:	1,268.60
26286	06/30/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5745706	06/12/2026		063026A	538.96
Invoice: 5745706				538.96 701002 540540	BLDG #2 5/5-6/5/26 Water			
					CHECK	26286	TOTAL:	538.96
26287	06/30/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5745960	06/12/2026		063026A	96.44
Invoice: 5745960				96.44 130100 540540	L/S #2 5/5-6/5/26 Water			
					CHECK	26287	TOTAL:	96.44
26288	06/30/2026	MANL	3352 LAS VIRGENES MUNICIPAL WATER DIST	5746191	06/12/2026		063026A	101.00
Invoice: 5746191				101.00 130100 540540	L/S # 1 5/5-6/5/26 Water			
					CHECK	26288	TOTAL:	101.00
26289	06/30/2026	MANL	30658 WELLS FARGO BANK	10001/MAY 2026	06/01/2026		063026A	47,780.37
Invoice: 10001/MAY 2026				-290.45 701223 683000	VISA CHARGES MAY 2026			
				-549.50 701121 683000	Training & Professional Devel			
				- .54 701002 551000	Training & Professional Devel			
				57.89 751750 541000	Supplies/Material			
				27.31 701322 572500	Supplies			
				125.00 101600 542000	Genl Supplies/Small Tools			
				35.00 701440 710500	Permits and Fees			
				114.00 701322 683000	Dues, Subsc & Memberships			
				70.00 701121 711000	Training & Professional Devel			
				32.91 701322 572500	Misc Staff Expense			
				35.00 701440 683000	Genl Supplies/Small Tools			
				59.00 701420 683000	Training & Professional Devel			
				450.00 701525 551500	Training & Professional Devel			
				218.39 101700 551000	Outside Services			
				229.90 701121 620000	Supplies/Material			
				683.55 701121 711000	Forms, Supplies And Postage			
				61.38 751820 551000	Misc Staff Expense			
				616.27 701525 551000	Supplies/Material			

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

		INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC						
46.06	751810	678800				District Sprayfield
77.00	751750	551000				Supplies/Material
33.96	701223	620000				Forms, Supplies And Postage
181.00	701125	681500				Empl Recognition Functions
11.38	751810	541500				Outside Services
875.00	701112	601000				Directors' Conference Exp
25.00	701125	681000				Recruitment Expense
52.78	701121	711000				Misc Staff Expense
92.02	751810	678800				District Sprayfield
80.27	701521	711000				Misc Staff Expense
138.74	701526	683000				Training & Professional Devel
98.69	751820	551000				Supplies/Material
147.54	701526	683000				Training & Professional Devel
30.13	751810	678800				District Sprayfield
20.08	701223	620000				Forms, Supplies And Postage
439.73	701530	572500				Genl Supplies/Small Tools
99.99	701331	683000				Training & Professional Devel
38.99	701121	710500				Dues, Subsc & Memberships
83.01	751820	551000				Supplies/Material
98.77	701121	711000				Misc Staff Expense
.59	701525	551500				Outside Services
28.00	701525	551000				Supplies/Material
66.47	701121	711000				Misc Staff Expense
225.00	701112	601000				Directors' Conference Exp
45.00	701121	683000				Training & Professional Devel
577.37	701121	681500				Empl Recognition Functions
93.76	751820	551000				Supplies/Material
267.76	101100	541000				Supplies/Material
380.00	701310	710500				Dues, Subsc & Memberships
243.29	701121	681500				Empl Recognition Functions
40.00	701331	683000				Training & Professional Devel
1,103.64	701420	683000				Training & Professional Devel
962.46	701230	683000				Training & Professional Devel
21.93	751810	678800				District Sprayfield
392.92	101100	551000				Supplies/Material
601.00	701222	572500				Genl Supplies/Small Tools
86.70	701342	711000				Misc Staff Expense
65.00	701525	551000				Supplies/Material
410.36	701322	572500				Genl Supplies/Small Tools
35.16	751840	620000				Forms, Supplies And Postage
114.00	701526	683000				Training & Professional Devel
276.53	101100	541000				Supplies/Material
9.99	701230	711000				Misc Staff Expense
2,500.00	701125	683000				Training & Professional Devel
72.36	701121	711000				Misc Staff Expense
22.00	701322	683000				Training & Professional Devel
165.00	701341	710500				Dues, Subsc & Memberships
150.00	701341	683000				Training & Professional Devel
115.00	701341	683000				Training & Professional Devel
20.81	101100	541000				Supplies/Material
150.06	101700	551000				Supplies/Material
852.80	701230	683000				Training & Professional Devel

A/P CASH DISBURSEMENTS JOURNAL

 CASH ACCOUNT: 999 100100 Cash-General
 CHECK NO CHK DATE TYPE VENDOR NAME

		INVOICE	INV DATE	PO	CHECK RUN	NET
		INVOICE DTL DESC				
	38.50	701001	551000		Supplies/Material	
	118.40	701521	551000		Supplies/Material	
	1,646.57	701230	683000		Training & Professional Devel	
	48.04	701420	540520		Telephone	
	70.00	701230	710500		Dues, Subsc & Memberships	
	125.82	701322	572500		Genl Supplies/Small Tools	
	16.39	701121	711000		Misc Staff Expense	
	317.32	101700	541000		Supplies/Material	
	634.64	101700	541000		Supplies/Material	
	320.08	101700	541000		Supplies/Material	
	279.82	701322	572500		Genl Supplies/Small Tools	
	137.19	701525	551000		Supplies/Material	
	13.17	701121	711000		Misc Staff Expense	
	259.98	701525	551000		Supplies/Material	
	580.90	701112	601000		Directors' Conference Exp	
	290.45	701223	683000		Training & Professional Devel	
	825.00	701121	683000		Training & Professional Devel	
	273.19	701125	683000		Training & Professional Devel	
	117.85	751750	551000		Supplies/Material	
	15.00	701125	681000		Recruitment Expense	
	78.00	701112	601000		Directors' Conference Exp	
	15.00	701125	681000		Recruitment Expense	
	15.00	701125	681000		Recruitment Expense	
	126.00	701112	601000		Directors' Conference Exp	
	110.00	701420	540520		Telephone	
	580.90	701112	601000		Directors' Conference Exp	
	119.00	701521	710500		Dues, Subsc & Memberships	
	951.96	101700	541000		Supplies/Material	
	84.67	101100	541000		Supplies/Material	
	251.00	701521	710500		Dues, Subsc & Memberships	
	113.96	701230	660400		Public Education Programs	
	796.38	701112	601000		Directors' Conference Exp	
	2,436.29	751810	541000		Supplies/Material	
	639.22	701121	683000		Training & Professional Devel	
	37.91	701230	660400		Public Education Programs	
	19.48	701121	683000		Training & Professional Devel	
	6.71	701230	660400		Public Education Programs	
	3.00	701112	601000		Directors' Conference Exp	
	6.00	701121	683000		Training & Professional Devel	
	50.00	701525	551010		Fuel	
	50.00	701521	683000		Training & Professional Devel	
	214.00	701230	620000		Forms, Supplies And Postage	
	9.66	701121	683000		Training & Professional Devel	
	41.95	701121	683000		Training & Professional Devel	
	273.19	701112	601000		Directors' Conference Exp	
	242.69	701223	683000		Training & Professional Devel	
	92.17	701230	660400		Public Education Programs	
	15.85	701121	683000		Training & Professional Devel	
	39.97	701121	683000		Training & Professional Devel	
	584.64	101700	541000		Supplies/Material	
	876.96	101700	541000		Supplies/Material	
	18.65	751810	678800		District Sprayfield	

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

		INVOICE	INV DATE	PO	CHECK RUN	NET
		INVOICE DTL DESC				
	10.00	701230	683000		Training & Professional Devel	
	72.06	701210	651600		Other Professional Serv	
	39.98	701121	683000		Training & Professional Devel	
	119.14	701121	711000		Misc Staff Expense	
	4.14	701121	683000		Training & Professional Devel	
1,345.39	701121	683000			Training & Professional Devel	
	11.58	701112	601000		Directors' Conference Exp	
	21.73	701222	572500		Genl Supplies/Small Tools	
	104.66	701230	660400		Public Education Programs	
	563.28	701322	572500		Genl Supplies/Small Tools	
	104.00	701332	683000		Training & Professional Devel	
	200.00	701420	621500		System Support and Maintenance	
	12.00	701230	683000		Training & Professional Devel	
	685.00	701342	683000		Training & Professional Devel	
	83.39	751820	551000		Supplies/Material	
	11.94	701223	683000		Training & Professional Devel	
	2.00	701223	683000		Training & Professional Devel	
	290.45	701223	683000		Training & Professional Devel	
	72.54	701322	711000		Misc Staff Expense	
	45.00	701341	551000		Supplies/Material	
	5.00	701223	683000		Training & Professional Devel	
	96.31	701510	683000		Training & Professional Devel	
	754.79	701112	601000		Directors' Conference Exp	
2,148.51	101700	551000			Supplies/Material	
	8.95	701223	683000		Training & Professional Devel	
	9.95	701223	683000		Training & Professional Devel	
	5.00	701223	683000		Training & Professional Devel	
	30.00	701230	683000		Training & Professional Devel	
	11.94	701223	683000		Training & Professional Devel	
	12.96	701121	683000		Training & Professional Devel	
	25.74	701121	683000		Training & Professional Devel	
	5.00	701223	683000		Training & Professional Devel	
1,536.29	751810	541000			Supplies/Material	
	69.97	701341	551000		Supplies/Material	
1,269.59	701525	551000			Supplies/Material	
	644.40	701121	683000		Training & Professional Devel	
	48.00	701530	683000		Training & Professional Devel	
	15.00	701230	620000		Forms, Supplies And Postage	
1,750.00	701526	683000			Training & Professional Devel	
	85.00	701112	601000		Directors' Conference Exp	
	19.80	701121	683000		Training & Professional Devel	
	980.46	701121	683000		Training & Professional Devel	
	203.23	701525	551000		Supplies/Material	
1,750.00	701526	683000			Training & Professional Devel	
	881.01	701121	683000		Training & Professional Devel	
	52.66	751810	678800		District Sprayfield	
	2.12	701420	621500		System Support and Maintenance	
	569.63	701420	540520		Telephone	
	11.77	701121	711000		Misc Staff Expense	
	143.72	101200	551000		Supplies/Material	
	299.72	701230	620000		Forms, Supplies And Postage	
	242.73	701222	572500		Genl Supplies/Small Tools	

A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

CHECK NO	CHK	DATE	TYPE	VENDOR NAME	INVOICE	INV DATE	PO	CHECK RUN	NET
INVOICE DTL DESC									
					468.00 701525 551500	Outside Services			
					56.11 701125 681500	Empl Recognition Functions			
CHECK								26289 TOTAL:	47,780.37
NUMBER OF CHECKS					13	*** CASH ACCOUNT TOTAL ***			52,840.61
TOTAL MANUAL CHECKS						COUNT	AMOUNT		
						13	52,840.61		
*** GRAND TOTAL ***								52,840.61	

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

CLERK: 3296tchau

YEAR	PER	JNL	SRC	ACCOUNT	EFF	DATE	JNL	DESC	REF	1	REF	2	REF	3	ACCOUNT	DESC	T	OB	DEBIT	CREDIT
															LINE	DESC				
2026	12	553																		
APP	101-200000																			
	06/30/2026	063026A							063026							Accounts Payable			7,605.85	
																AP CASH DISBURSEMENTS JOURNAL				
APP	999-100100															Cash-General				52,840.61
	06/30/2026	063026A							063026							AP CASH DISBURSEMENTS JOURNAL				
APP	751-200000															Accounts Payable			7,392.30	
	06/30/2026	063026A							063026							AP CASH DISBURSEMENTS JOURNAL				
APP	701-200000															Accounts Payable			37,645.02	
	06/30/2026	063026A							063026							AP CASH DISBURSEMENTS JOURNAL				
APP	130-200000															Accounts Payable			197.44	
	06/30/2026	063026A							063026							AP CASH DISBURSEMENTS JOURNAL				
																GENERAL LEDGER TOTAL			52,840.61	52,840.61
APP	999-201010															Due to/Due Frm Potable Wtr Ops			7,605.85	
	06/30/2026	063026A							063026											
APP	101-100100															Cash-General				7,605.85
	06/30/2026	063026A							063026											
APP	999-207510															Due to/Due FromJPA Operations			7,392.30	
	06/30/2026	063026A							063026											
APP	751-100100															Cash-General				7,392.30
	06/30/2026	063026A							063026											
APP	999-207010															Due to/Due FromInternal Svs			37,645.02	
	06/30/2026	063026A							063026											
APP	701-100100															Cash-General				37,645.02
	06/30/2026	063026A							063026											
APP	999-201300															Due to/Due FrmSanitation Ops			197.44	
	06/30/2026	063026A							063026											
APP	130-100100															Cash-General				197.44
	06/30/2026	063026A							063026											
																SYSTEM GENERATED ENTRIES TOTAL			52,840.61	52,840.61
																JOURNAL 2026/12/553	TOTAL		105,681.22	105,681.22

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND	YEAR PER	JNL	EFF DATE	ACCOUNT DESCRIPTION	DEBIT	CREDIT
ACCOUNT						
101 Potable Water Operations	2026 12	553	06/30/2026	Cash-General		7,605.85
101-100100				Accounts Payable	7,605.85	
101-200000						
				FUND TOTAL	7,605.85	7,605.85
130 Sanitation Operations	2026 12	553	06/30/2026	Cash-General		197.44
130-100100				Accounts Payable	197.44	
130-200000						
				FUND TOTAL	197.44	197.44
701 Internal Service Fund	2026 12	553	06/30/2026	Cash-General		37,645.02
701-100100				Accounts Payable	37,645.02	
701-200000						
				FUND TOTAL	37,645.02	37,645.02
751 JPA Operations	2026 12	553	06/30/2026	Cash-General		7,392.30
751-100100				Accounts Payable	7,392.30	
751-200000						
				FUND TOTAL	7,392.30	7,392.30
999 Pooled Cash	2026 12	553	06/30/2026	Cash-General		52,840.61
999-100100				Due to/Due Frm Potable wtr Ops	7,605.85	
999-201010				Due to/Due FrmSanitation Ops	197.44	
999-201300				Due to/Due FromInternal Svs	37,645.02	
999-207010				Due to/Due FromJPA Operations	7,392.30	
999-207510						
				FUND TOTAL	52,840.61	52,840.61

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND		DUE TO	DUE FR
101	Potable Water Operations		7,605.85
130	Sanitation Operations		197.44
701	Internal Service Fund		37,645.02
751	JPA Operations		7,392.30
999	Pooled Cash	52,840.61	
TOTAL		52,840.61	52,840.61

** END OF REPORT - Generated by Thieu Chau **

Las Virgenes Municipal Water District



A/P CASH DISBURSEMENTS JOURNAL

CASH ACCOUNT: 999 100100 Cash-General
CHECK NO CHK DATE TYPE VENDOR NAME

				INVOICE	INV DATE	PO	CHECK RUN	NET
				INVOICE DTL DESC				
1257	06/23/2026	WIRE	21537 IOSIGHT, LTD.	4011	05/24/2026		062326A	3,500.00
Invoice: 4011				3,500.00	751810	541500	ANLN MAINT/SUPPORT FOR AUTOMATED CIWQS REPORTS Outside Services	
				CHECK				1257 TOTAL: 3,500.00
1259	06/23/2026	WIRE	30657 CALPERS	CERBT/FY25-26 Q4	06/16/2026		062326A	176,700.75
Invoice: CERBT/FY25-26 Q4				176,700.75	701	200500	CERBT CONTRIBUTION 4TH QTR FY25-26 Accrued Accounts Payable	
				CHECK				1259 TOTAL: 176,700.75
1272	06/23/2026	WIRE	30667 U.S. BANK	225177/PMT#1-4R	06/02/2026		062326A	1,118,882.70
Invoice: 225177/PMT#1-4R				189,833.30	754	201000	ESCROW NO.285624000 RETENTION FOR PROGRESS PMT#1-4 Contract Retainage	
				189,833.35	754	201000	Contract Retainage	
				308,450.00	754	201000	Contract Retainage	
				430,766.05	754	201000	Contract Retainage	
				CHECK				1272 TOTAL: 1,118,882.70
				NUMBER OF CHECKS	3	*** CASH ACCOUNT TOTAL ***		1,299,083.45
				TOTAL WIRE TRANSFERS		COUNT	AMOUNT	
						3	1,299,083.45	
				*** GRAND TOTAL ***				1,299,083.45

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

CLERK: 3296tchau

YEAR	PER	JNL	SRC	ACCOUNT	EFF	DATE	JNL	DESC	REF	1	REF	2	REF	3	ACCOUNT	DESC	T	OB	DEBIT	CREDIT
															LINE	DESC				
2026	12	459																		
APP	751-200000				06/23/2026	062326A		062326							Accounts Payable				3,500.00	
															AP CASH DISBURSEMENTS JOURNAL					
APP	999-100100				06/23/2026	062326A		062326							Cash-General					1,299,083.45
															AP CASH DISBURSEMENTS JOURNAL					
APP	701-200000				06/23/2026	062326A		062326							Accounts Payable				176,700.75	
															AP CASH DISBURSEMENTS JOURNAL					
APP	754-200000				06/23/2026	062326A		062326							Accounts Payable				1,118,882.70	
															AP CASH DISBURSEMENTS JOURNAL					
															GENERAL LEDGER TOTAL				1,299,083.45	1,299,083.45
APP	999-207510				06/23/2026	062326A		062326							Due to/Due FromJPA Operations				3,500.00	
APP	751-100100				06/23/2026	062326A		062326							Cash-General					3,500.00
APP	999-207010				06/23/2026	062326A		062326							Due to/Due FromInternal Svs				176,700.75	
APP	701-100100				06/23/2026	062326A		062326							Cash-General					176,700.75
APP	999-207540				06/23/2026	062326A		062326							Due to/Due FromJPA Replacement				1,118,882.70	
APP	754-100100				06/23/2026	062326A		062326							Cash-General					1,118,882.70
															SYSTEM GENERATED ENTRIES TOTAL				1,299,083.45	1,299,083.45
															JOURNAL 2026/12/459	TOTAL			2,598,166.90	2,598,166.90

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND	YEAR	PER	JNL	EFF	DATE	DEBIT	CREDIT
ACCOUNT					ACCOUNT DESCRIPTION		
701 Internal Service Fund	2026	12	459	06/23/2026			
701-100100					Cash-General		176,700.75
701-200000					Accounts Payable	176,700.75	
					FUND TOTAL	176,700.75	176,700.75
751 JPA Operations	2026	12	459	06/23/2026			
751-100100					Cash-General		3,500.00
751-200000					Accounts Payable	3,500.00	
					FUND TOTAL	3,500.00	3,500.00
754 JPA Replacement	2026	12	459	06/23/2026			
754-100100					Cash-General		1,118,882.70
754-200000					Accounts Payable	1,118,882.70	
					FUND TOTAL	1,118,882.70	1,118,882.70
999 Pooled Cash	2026	12	459	06/23/2026			
999-100100					Cash-General		1,299,083.45
999-207010					Due to/Due From Internal Svs	176,700.75	
999-207510					Due to/Due From JPA Operations	3,500.00	
999-207540					Due to/Due From JPA Replacement	1,118,882.70	
					FUND TOTAL	1,299,083.45	1,299,083.45

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND		DUE TO	DUE FR
701	Internal Service Fund		176,700.75
751	JPA Operations		3,500.00
754	JPA Replacement		1,118,882.70
999	Pooled Cash	1,299,083.45	
TOTAL		1,299,083.45	1,299,083.45

** END OF REPORT - Generated by Thieu Chau **



LAS VIRGENES MUNICIPAL WATER DISTRICT
4232 Las Virgenes Road, Calabasas CA 91302

MINUTES
REGULAR MEETING

9:00 AM

June 16, 2026

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance to the Flag was led by Alex Leu.

1. CALL TO ORDER AND ROLL CALL

The meeting was called to order at **9:00 a.m.** by Board President Coradeschi in the Glen D. Peterson Board Room at Las Virgenes Municipal Water District headquarters at 4232 Las Virgenes Road, Calabasas, CA 91302. Director Gary Burns participated from the posted teleconference location 1004 Carolina Blvd., Isle of Palms, SC 29451. Nancy Lawrence, Clerk of the Board, conducted the roll call.

Present: Directors Gary Burns (exited the meeting at 11:00 am), Andy Coradeschi, Randy Levine, Jay Lewitt, and Len Polan.

Absent: None

Staff Present: David Pedersen, General Manager
Joe McDermott, Assistant General Manager
Donald Patterson, Assistant General Manager
Adrienne Burns, Director of External Affairs
Darrell Johnson, Director of Water Operations
Brian Richie, Director of Finance and Technology
Nancy Lawrence, Clerk of the Board
Keith Lemieux, District Counsel
Keith Millhouse, District Counsel

2. APPROVAL OF AGENDA

Director Lewitt moved to approve the agenda. Motion seconded by Director Levine. Motion carried 5-0 by the following vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

3. PUBLIC COMMENTS

Adrienne Burns, Director of External Affairs, introduced Resource Conservation Intern Alex Rosa

Adrienne Burns, Director of External Affairs, announced the promotion of Riki Clark from Public Affairs Associate to Senior Public Affairs Associate

Brian Richie, Director of Finance and Technology, introduced Accountant Janna Spears

Eric Schalgeter, Director of, introduced Electrical and Instrumentation Technician Phillip Knight

David Pedersen, General Manager, congratulated Liz Smith on earning her Certified Public Procurement Officer Designation.

David Pedersen, General Manager, congratulated Jessica Cortez on earning her Certified Fraud Examiner Designation.

4. CONSENT CALENDAR

A List of Demands: June 2, 2026: Receive and File

B List of Demands: June 16, 2026: Receive and File

C Minutes Special Meeting of May 12, 2026, Special Meeting May 13, 2026, and Regular Meeting May 19, 2026: Approve

D Directors Per Diem May 2026: Approve

E Monthly Cash and Investment Report: receive and File

F Statement of Revenues, Expenses and Changes in Net Cash Flow: April 2026: Receive and file Statement of Revenues, Expenses and Changes in Net Cashflow for the period ending April 30, 2026.

G General District Election on November 3, 2026, Resolution: Pass, approve, and

adopt proposed Resolution No. 2668, pertaining to a General District Election to be held in the District on Tuesday, November 3, 2026; and authorize the Board Secretary to submit certified copies of said resolution, completed Roster of Officeholders for Local Jurisdictions, and District Boundary and Divisions Map to the Board of Supervisors and the Registrar-Recorder/County Clerk of the County of Los Angeles. Clarification made to election date in description below as November 3, 2026.

RESOLUTION NO. 2668

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT REQUESTING THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES TO PERMIT THE REGISTRAR-RECORDER/COUNTY CLERK TO RENDER ELECTION SERVICES FOR A GENERAL DISTRICT ELECTION TO BE HELD ON NOVEMBER 3, 2026

(Reference is hereby made to Resolution No. 2668 on file in the District's Resolution Book and by this reference the same is incorporated herein.)

- H Rancho Las Virgenes Composting Facility Access Control and Video Surveillance Upgrade Project: Award:** Accept the proposal from West Coast Cable, Inc. (WCC), and authorize the General Manager to execute a professional services agreement, in an amount not to exceed \$455,561, for the Rancho Las Virgenes Composting Facility Access Control and Video Surveillance Upgrade Project and to retain the services of WCC for future site-specific access control and video surveillance upgrades, subject to satisfactory performance, budget availability, and applicable procurement requirements for a period of five years.
- I Adjustment to Water and Sanitation Capacity Fees, Adoption:** Pass, approve and adopt proposed Resolution No. 2675, updating Water and Sanitation Capacity Fees, effective on July 1, 2026.

RESOLUTION NO. 2675

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT AMENDING RESOLUTION NO. 2468 (ADMINISTRATIVE CODE) AS IT RELATES TO WATER AND SANITATION SERVICE CAPACITY FEES

(Reference is hereby made to Resolution No. 2675 on file in the District's Resolution Book, and by this reference the same is incorporated herein.)

- J Annual Recycled Water Tank Inspection and Cleaning, Approval of Change Order No. 5:** Authorize the General Manager to execute Change Order No. 5, in the amount of \$13,500, for Catalyst Diving, Inc., to perform additional cleaning of the recycled water tanks and Reservoir No. 2

- K On-Call Valve Installation and Conduit Pump Station: CEQA Determination and Contract Amendment:** Find that the work is exempt from the provisions of the California Environmental Quality Act; re-appropriate funding, in the amount of \$291,000, from CIP Job No. 10828, Conduit Pump Station Settling Repairs Project, to CIP Job No. 10784, Small Valve Replacement Project; and authorize the General Manager to execute a contract amendment, in the amount of \$291,000, with Toro Enterprises, Inc., for on-call valve installation services to include replacement of valves at the Conduit Pump Station.
- L Contract Laboratory Services: WECK Contract Increase:** Authorize the General Manager to execute an amendment to the professional services agreement with Weck Laboratories, Inc., in the amount of \$35,630, for contract laboratory services.
- M Designation of Board Members for June 2026 Washington DC Lobbying trip:** Designate the Board President and Vice President as the District's official delegates to attend the Washington D.C. federal lobbying trip in June 2026.

Director Lewitt moved to approve consent items with a clarification on the Election Date for item 4G to be November 3rd, 2026. Motion seconded by Director Levine. Motion carried 5-0 by the following vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.
NOES: None
ABSTAIN: None
ABSENT: None

5. ILLUSTRATIVE AND/OR VERBAL PRESENTATION AGENDA ITEMS

A MWD Representative Report

Director Lewitt provided the update on Metropolitan Water District meetings.

B Public Affairs Update

Mischa Webley, Public Affairs and Communications Manager, reported on construction outreach for the Advanced Water Purification Facility (AWPF), Summer Events and OceanWell Pilot Media.

C Legislative and Regulatory Update

Jeremy Wolf, Legislative Affairs Manager, presented updates on Environmental Protection Agency (EPA) new PFAS drinking water actions and compliance deadlines and an update on the California Governor's Race was provided.

D Water Supply Conditions Report

Donald Patterson, Assistant General Manager, provided an update on the current water supply and upcoming winter predictions.

6. TREASURER

Director Levine stated that the Treasurer's Report included two check runs of \$1.7 million and \$2 million dollars for a total of \$3.7 million. \$2 million went to Metropolitan and the remaining amounts included normal expenses.

7. GENERAL MANAGER

- A Formation of Southern California Regional Water Authority and Designation of Governing Board Representative.** Authorize the General Manager to execute the joint powers agreement, subject to approval as to form by District Counsel and with non-substantive changes, to form and join the Southern California Regional Water Authority; and designate a representative to serve on the governing board of the newly formed joint powers authority.

Director Polan moved to approve Item 7A authorizing the General Manager to execute the joint powers agreement to form and to join the Southern California Regional Water Authority. Motion seconded by Director Coradeschi Motion carried 5-0 by the following roll call vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

Director Jay Lewitt was designated for the role of LVMWD representative to serve on the governing board of the Southern California Regional Water Authority JPA by the following vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

8. EXTERNAL AFFAIRS

- A 2025 Urban Water Management Plan, Public Hearing and Adoption**
Conduct a public hearing on the 2025 Urban Water Management Plan; and, absent substantial comments or concerns raised during the public hearing, pass, approve. and adopt proposed Resolution No. 2666, adopting the 2025 Urban Water Management Plan.

RESOLUTION NO. 2666

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE LAS VIRGENES
MUNICIPAL WATER DISTRICT ADOPTING THE 2025 URBAN WATER
MANAGEMENT PLAN**

(Reference is hereby made to Resolution No. 2666 on file in the District's Resolution Book and by this reference the same is incorporated herein.)

Craig Jones, Resource Conservation Manager, provided the presentation. Public hearing was opened. The floor was opened for public comments. No public comments were received. Public hearing was closed.

Director Levine moved to approve Item 8A. Motion seconded by Director Burns Motion carried 5-0 by the following roll call vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

B 2025 Water Shortage Contingency Plan: Public Hearing and Adoption

Conduct a public hearing for the 2025 Water Shortage Contingency Plan; and, absent substantial comments or concerns raised during the public hearing, pass, approve and adopt proposed Resolution No. 2667, adopting the 2025 Water Shortage Contingency Plan.

RESOLUTION NO. 2667

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE LAS VIRGENES
MUNICIPAL WATER DISTRICT ADOPTING THE 2025 WATER SHORTAGE
CONTINGENCY PLAN**

(Reference is hereby made to Resolution No. 2667 on file in the District's Resolution Book and by this reference the same is incorporated herein.)

Craig Jones, Resource Conservation Manager, provided the presentation. Public hearing was opened. The floor was opened for public comments. No public comments were received. Public hearing was closed.

Director Burns moved to approve Item 8B. Motion seconded by Director Polan Motion carried 5-0 by the following roll call vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

9. FINANCE AND TECHNOLOGY

- A Artificial Intelligence Strategy and Roadmap: Use Case Prioritization.**
Receive and file the update on use case prioritization as part of the development of the district's artificial intelligence strategy roadmap.

Neha Arnold, of Sedna Consulting Group, presented an update on the Artificial Intelligence Roadmap. This was an overview of the structure and implement the use of A.I., no action was taken.

- B CalPERS Pension and Other Post Employment Benefit Liabilities Update**
Receive and file an update on the CalPERS Pension and other post-employment benefit (OPEB) liabilities, and authorize the General Manager to approve additional contributions, in the amount of \$728,007, to reduce the net OPEB liability during Fiscal Year 2026-27.

Debbie Rosales, Finance Manager, provided the report Current OPEB funding for the district is 91.12%.

Director Polan moved to approve Item 9B. Motion seconded by Director Levine Motion carried 5-0 by the following roll call vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

- C Fiscal Years 2026-28 Proposed Biennial Budget: Approval and Adoption**
Approve the proposed Biennial Budget Plan for Fiscal Years 2026-28; adopt the proposed Fiscal Year 2026-27 Budget; approve 18 proposed positions to be added in Fiscal years 2026-28; and approve the proposed reclassifications and salary range assignments, effective July 1, 2026.

Debbie Rosales, Finance Manager, provided the final budget report. Total Budget FY 2026-27 is \$223.2 Million and FY 2027-28 is \$225.4 Million. Operating Budget 2026-27 is \$76.6 Million and 2027-28 is \$79.0 Million.

Director Levine moved to approve Item 9B. Motion seconded by Director Lewitt Motion carried 5-0 by the following roll call vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

10. NON-ACTION ITEMS

A General Manager Reports

(1) General Business

General Manager David Pedersen reported on an OceanWell meeting with State Water Resources Control Board. The district received a grant from the Bureau of Reclamation under the water smart program for \$432,000 to help fund the large meter portion of the AMR/AMI project. Next week is the DC Lobbying trip. JPA and LVMWD board meetings are on July 6th (JPA) and July 7th (LVMWD).

Follow-Up Items

None.

B Directors' Comments and Report on Outside Meetings

Director Lewitt reported on the Santa Clarita Valley Water District Pure Water tour. Director Coradeschi reported on the Agoura Hills City Council regarding Pure Water.

11. FUTURE AGENDA ITEMS

None.

12. CLOSED SESSION

Conference with District Legal Counsel – Anticipated Litigation (Government Code Section 54956.9 (d)(1)): Multiple Cases

- Grigsby Case No. 25STCV00832
- Silver Case No. 25STCV15521
- Gilani Case No. 25STCV19925
- Short form complaints from: O'Neil, Rogers, California Fair Plan Association, Sykes, Nader, and Ofiesh.

The Board met in closed session to discuss the Palisades fire cases as identified on the agenda. The board received reports on these items. No reportable action was taken.

13. ADJOURNMENT

Seeing no further business to come before the Board, the meeting was duly adjourned at **12:26 a.m.**



LAS VIRGENES MUNICIPAL WATER DISTRICT
4232 Las Virgenes Road, Calabasas CA 91302

MINUTES
SPECIAL MEETING

9:00 AM

July 2, 2026

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was led by Darrell Johnson.

1. CALL TO ORDER AND ROLL CALL

The meeting was called to order at **9:00 a.m.** by Board President Coradeschi in the Glen D. Peterson Board Room at Las Virgenes Municipal Water District headquarters at 4232 Las Virgenes Road, Calabasas, CA 91302. Director Gary Burns participated from the posted teleconference location at Dardeene St. Calabasas, CA 91302. Director Randy Levine participated from the posted teleconference location 27657 Peninsula #121 Lake Arrowhead, CA 92352. Nancy Lawrence, Clerk of the Board, conducted the roll call.

Present: Directors Gary Burns (joined 9:02am), Andy Coradeschi, Randy Levine, Jay Lewitt, and Len Polan.

Absent: None

Staff Present: David Pedersen, General Manager
Joe McDermott, Assistant General Manager
Donald Patterson, Assistant General Manager
Darrell Johnson, Director of Water Operations
Adrienne Burns, Director of External Affairs
Nancy Lawrence, Clerk of the Board
Keith Lemeiux, District Counsel

2. APPROVAL OF AGENDA

Director Polan moved to approve the agenda. Motion seconded by Director Coradeschi. Motion carried 4-0 by the following vote:

AYES: Directors: Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: Burns (arrived at 9:02am)

3. PUBLIC COMMENTS

No Public Comments were made.

4. CLOSED SESSION

- A. Conference with District Legal Counsel – Anticipated litigation (Government Code Section 54956.9 (d)(1)): Lindero Canyon Road/Agoura Road Soil Contamination

The Board met in closed session to discuss the item identified in the agenda. Staff received a report from district council, no reportable action took place.

5. ADJOURNMENT

Seeing no further business to come before the Board, the meeting was duly adjourned at **10:22 a.m.**



LAS VIRGENES MUNICIPAL WATER DISTRICT
4232 Las Virgenes Road, Calabasas CA 91302

MINUTES
REGULAR MEETING

9:00 AM

July 7, 2026

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance to the Flag was led by Darrell Johnson.

1. CALL TO ORDER AND ROLL CALL

The meeting was called to order at **9:00 a.m.** by Board President Coradeschi in the Glen D. Peterson Board Room at Las Virgenes Municipal Water District headquarters at 4232 Las Virgenes Road, Calabasas, CA 91302. Director Randy Levine participated from the posted teleconference location 27657 Peninsula #121 Lake Arrowhead, CA 92352. Nancy Lawrence, Clerk of the Board, conducted the roll call.

Present: Directors Gary Burns, Andy Coradeschi, Randy Levine, Jay Lewitt, and Len Polan.

Absent: None

Staff Present: David Pedersen, General Manager
Joe McDermott, Assistant General Manager
Donald Patterson, Assistant General Manager
Adrienne Burns, Director of External Affairs
Darrell Johnson, Director of Water Operations
Brian Richie, Director of Finance and Technology
Nancy Lawrence, Clerk of the Board
Wayne Lemieux, District Counsel

2. **APPROVAL OF AGENDA**

Director Polan moved to approve the agenda. Motion seconded by Director Lewitt. Motion carried 5-0 by the following roll call vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

3. **PUBLIC COMMENTS**

No public comments were made.

4. **CONSENT CALENDAR**

A List of Demands: July 07, 2026: Receive and File

B Monthly Cash and Investment Report: Receive and File

C Statement of Revenues, Expenses and Changes in Net Cash Flow: May 2026: Receive and file Statement of Revenues, Expenses and Changes in Net Cashflow for the period ending May 31, 2026.

D Potable and Recycled Water Potable and Recycled Water Distribution Controls and Communication System Upgrade Project: Award of Electrical Services: Accept the bid from Taft Electric Company and authorize the General Manager to execute a contract, in the amount of \$690,812, for electrical services associated with Phase 1 of the Potable and Recycled Water Distribution Controls and Communications System Upgrade Project.

E SCADA System Software Licensing and Support: Assignment and Transfer: Authorize the General Manager to execute an agreement to assign and transfer the current contract for the District's Supervisory Control and Data Acquisition system software licensing and support from E&M Electric and Machinery, Inc., to InSource Software Solutions, Inc.

F Supply and Delivery of Pressure Regulators: Award. Accept the bid from Ferguson Waterworks; authorize the General Manager to issue a one-year purchase order, in the amount of \$126,213, including applicable taxes, with four one-year renewal options using a mutually agreeable inflationary factor; and re-appropriate \$125,000 from the adopted Fiscal Year 2026-27 Operating Budget to the Capital Improvements Program Budget for CIP Job No. 10854, Pressure Regulator Replacement Program, for the supply and delivery of regulators

- G Large Meter Replacement Project: CEQA Determination:** Find that the work for the Large Meter Replacement Project is exempt from the provisions of the California Environmental Quality Act.
- H Hach Company Annual Purchase Order: Authorization:** Approve a waiver of competitive bidding and authorize the General Manager to issue a one-year purchase order to the Hach Company, in the amount of \$231,525, with five one-year renewal options using a five percent escalator.

Director Coradeschi moved to approve the consent calendar. Motion seconded by Director Polan. Motion carried 5-0 by the following roll call vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

5. ILLUSTRATIVE AND/OR VERBAL PRESENTATION AGENDA ITEMS

A Water Supply Conditions Report

Donald Patterson, Assistant General Manager, provided an update on the current water supply.

B Legislative and Regulatory Update

Jeremy Wolf, Legislative Affairs Manager, presented updates on Federal Advocacy efforts during the DC Lobbying trip in June, 2026-2027 State Budget, and State Administration appointments.

6. TREASURER

Director Levine stated that the Treasurer's Report included \$12 million in disbursements with almost all related to the JPA. \$9 million to Walsh \$400k to Jacobs a \$1.8 million to the City of Thousand Oaks for Reverse Osmosis Concentrate Line which is the first of 2 payments.

7. GENERAL MANAGER

- A Agreement for Legal Services with Aleshire & Wynder, LLP: Amendment.** Authorize the General Manager to execute an amended Agreement for Legal Services with Aleshire & Wynder, LLP.

David Pedersen, General Manager, introduced the report. Wayne Lemieux, District Counsel, and Donald Patterson, Assistant General Manager, provided additional background information on the agreement.

Director Burns moved to approve item 7A. Motion seconded by Director Polan. Motion carried 5-0 by the following roll call vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

8. EXTERNAL AFFAIRS

- A. On-Call Pipeline Repair and Paving/Concrete Services: Increase** Find that the work is exempt from the provisions of the California Environmental Quality Act; and authorize the General Manager to execute a contract amendment, in the amount of \$3,628,717.72, with Toro Enterprises, Inc., to increase the not-to-exceed amount for the on-call pipeline repair and paving/concrete services contract to \$6,830,698.89 and extend the current two-year term through March 31, 2027.

Alex Leu, Water System Manager, presented the report.

Director Polan moved to approve Item 8A. Motion seconded by Director Lewitt. Motion carried 5-0 by the following roll call vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

9. HUMAN RESOURCES AND RISK MANAGEMENT

- A Total Compensation Study: Award.** Accept the proposal from Public Sector Personnel Consultants, Inc. and authorize the General Manager to execute a professional services agreement, in the amount of \$50,000, to prepare a total compensation study, plus specified per-unit rates to conduct optional classification work, for a total not-to-exceed amount of \$70,000.

Sophia Crocker, Director of Human Resources and Risk Management, presented the report.

Director Burns moved to approve Item 8A. Motion seconded by Director Lewitt. Motion carried 5-0 by the following roll call vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

10. NON-ACTION ITEMS

A General Manager Reports

(1) General Business

David Pedersen, General Manager, provided an update on Board Election deadlines. Future Safety training will be scheduled. A list of August conferences that are coming up. The first August LVMWD Board Meeting is scheduled for Monday August 3rd, and the August 19th meeting is canceled due to conflicts with conferences. AWAVC Waterwise Breakfast is on July 16th, 2026.

Follow-Up Items

None.

B Directors' Comments and Report on Outside Meetings

Director Burns reported on the ACWA Region 8 Event.
Director Coradeschi reported on the ACWA Region 8 Event.
Director Lewitt reported on the DC Lobbying trip.

11. FUTURE AGENDA ITEMS

None.

12. CLOSED SESSION

A Public Employee Performance Evaluation (Government Code Section 54957)

Title: General Manager

B Conference with Labor Negotiators (Government Code Section 54957.6)

Agency Designated Representatives: Board of Directors
Unrepresented Employee: General Manager

The Board met in closed session to discuss personnel matters listed on the agenda.

Director Coradeschi moved to approve the General Managers compensation package.
Motion Seconded by Director Burns for the following:

- 3% Salary increase effective 7/7/26
- COLA increase, dependent on CPI, effective 1/1/26
- Vacation leave cash out of up to 120hrs per year effective 7/7/26
- Sick leave cash out of up to 96hrs per year effective 7/7/26.

Motion Carried 5-0 by the following roll call vote:

AYES: Directors: Burns, Coradeschi, Levine, Lewitt, and Polan.

NOES: None

ABSTAIN: None

ABSENT: None

13. ADJOURNMENT

Seeing no further business to come before the Board, the meeting was duly adjourned at **11:37 a.m.**

Date 7/8/2026

To: Payroll

From: David W. Pedersen
General Manager

Signed by:

12C6BE2E4EC44E2...

RE: Per Diem Request – June 2026

Attached are the Director statements of attendance for meetings, conferences and miscellaneous functions, which are summarized in the table below. If you have any questions, please contact me. Thank you.

On December 10 ,2025, the Board adopted Resolution No. 2663, amending the per diem rate to \$261.18 for 2026.

	<u>Director</u>	<u>No. of Meetings</u>	<u>Rate</u>	<u>Total</u>
22040	Gary Burns	9	\$261.18	\$2,350.62
22039	Andy Coradeschi	10	\$261.18	\$ 2,611.80
22086	Randy Levine	6	\$261.18	\$1,567.08
19447	Jay Lewitt	16	\$261.18	\$4,178.88
18856	Leonard Polan	7	\$261.18	\$1,828.26

*LVMWD Code Section 2-2.106(a): “not exceeding a total of ten (10) days in any calendar month”

**LVMWD Code Section 2-2.106(b): MWD director “not exceeding a total of ten (10) additional days in any calendar month.”

LAS VIRGENES MUNICIPAL WATER DISTRICT - PER DIEM REPORT



To: Nancy Lawrence, Clerk of the Board Director's Name: Gary Burns

Month of: 1-Jun Division: 3

The following are Las Virgenes Municipal Water District Board of Directors Meetings, Committee Meetings/Conferences I have attended:

Date(s)	# of Days Claimed		Reimbursible Expenses ² (Y/N)	Check One		Event Title
	Event	Travel ¹		MWD	LVMWD	
6/1/2026			1		1	JPA Regular Board Meeting
6/3/2026			1		1	AWWA Corporate Water Stewardship Webinar
6/8/2026			1	1		MWD One Water
6/9/2026			1	1		MWD Board Meeting
6/10/2026			1		1	AWWA 2050 Water Tecnologies
6/16/2026			1		1	LVMWD Board Meeting
6/18/2026			1		1	AWAVC Fire Response Webinar
6/23/2026			1	1		MWD Joint Executive and Board Meeting
6/26/2026			1		1	ACWA Region 8 Ai Event
TOTAL			9			

Date Submitted: #####

Director Signature: Gary Burns via email

NOTES: 1. Travel the day before and/or after an authorized meeting or seminar outside of LA, Ventura and Orange Counties may be paid in accordance with Board Policy. 2. Attach completed Statement of Account and Claim for Personally Incurred Expenses form.

To: <u>Nancy Lawrence, Clerk of the Board</u>	Director's Name: <u>Jay Lewitt</u>
Month of: <u>Jun-26</u>	Division: <u>5</u>

Date(s)	# of Days Claimed			Reimbursible Expenses ² (Y/N)	Check One		Event Title
	Event	Travel ¹	Total		MWD	LVMWD	
6.1.26					1		Met Leg Meeting Zoom
6.1.26						1	JPA Board Meeting
6.5.26					1		Met prep Meeting with Joe McDermott
6.8.26		One way			1		Met Committee meetings
6.9.26		One way			1		Met Board Meeting
6.10.26						1	Santa Clarita Water District Tour at LVMWD
6.15.26						1	Washington DC Lobby Prep Meeting
6.16.26						1	LVMWD Board Meeting
6.18.26		X				1	AWAVC breakfast Meeting
6.19.26		X			1		Steve Blois Memorial 6811 Grimes Canyon Oxnard
6.22-6.25		X				4	JPA lobby trip Washington DC
6.23.26					1		Met executive meeting zoom
6.26.26						1	Meeting with Councilman Halpren & WV City Manager
6.4.26					1		Met Northern Caucus zoom
				Max Allowed	10	10	
TOTAL PAID				Actual	6	10	7.2.26

Date Submitted: _____

Director Signature: *Jay Lewitt*

LAS VIRGENES MUNICIPAL WATER DISTRICT - PER DIEM REPORT



To: Nancy Lawrence, Clerk of the Board Director's Name: Len Polan
Month of: _____ Division: 4

The following are Las Virgenes Municipal Water District Board of Directors Meetings, Committee Meetings/Conferences I have attended:

Date(s)	# of Days Claimed			Reimbursible Expenses2 (Y/N)	Check One		Event Title
	Event	Travel 1	Total		MWD	LVMWD	
6/1/2026	1	---	1	----	---	1	JPA Bd Mtg
6/8/2026	1	---	1	---	---	1	MWD One water & Adpatation committee
6/9/2026	1	---	1	---	---	1	MWD Bd of Directors Mtg
6/16/2026	1	---	1	---			LVMWD Bd Mtg
6/18/2026	1	---	1	---	---	1	VCAWA Mtg
6/23/2026	1	---	1	---	---	1	MWD Special Committee on AG & Tribalk Partnerships
6/1/2026	1	---	1	---	---	1	Region 8 Mtg in Pasadena
TOTAL			7				

NOTES: 1. Travel the day before and/or after an authorized meeting or seminar outside of LA, Ventura and Orange Counties may be paid in accordance with Board Policy. 2. Attach completed Statement of Account and Claim for Personally Incurred Expenses form.

Date Submitted: 6/30/26
Director Signature: Emailed Leonard Polan

LAS VIRGENES MUNICIPAL WATER DISTRICT - PER DIEM REPORT



To: Nancy Lawrence Clerk of the Board Director's Name: Andy Coradeschi

Month of: 6/2026 Division: 2

The following are Las Virgenes Municipal Water District Board of Directors Meetings, Committee Meetings/Conferences I have attended:

Date(s)	# of Days Claimed		Reimbursible Expenses2 (Y/N)	Check One		Event Title
	Event	Travel 1	Total	MWD	LVMWD	
6/1/26	JPA BOD	n	1		x	JPA Board meeting
6/8/26	MWD	n	1		x	EOT Committee, Leg & Comms Committee
6/9/26	MWD	n	1		x	MWD BOD meeting
6/10/26	Agoura Hills	y	1		x	Agoura Hills City Council AWPf Presentation
6/16/26	LV BOD	n	1		x	LVMWD BOD Meeting
6/18/26	AWWAVC	y	1		x	AWWAVC Meeting Caluegues
6/22/26-6/25/26	Lobbying	y	4		x	Lobbying Washington, DC
6/26/26	ACWA	y	0		x	ACWA Region 8 Luncheon
Total			10			

Director Signature: _____

LAS VIRGENES MUNICIPAL WATER DISTRICT - PER DIEM REPORT



To: Nancy

Director's Name: Randy Levine

Month of: June

Division: 1

The following are Las Virgenes Municipal Water District Board of Directors Meetings, Committee Meetings/Conferences I have attended:

Date(s)	# of Days Claimed			Reimbursible Expenses ² (Y/N)	Check One		Event Title
	Event	Travel ¹	Total		MWD	LVMWD	
6/1/2026	1		1	n		1	JPA zoom review
6/16/2026	1		1	N		1	LVMWD Board Meeting
6/18/2026	1		1	n		1	AWAVC breakfast
6/9/2026	1		1	n	1		met zoom
6/23/2026	1		1	n	1		met zoom
6/8/2026	1		1	n	1		Met zoom
TOTAL			6				

Date Submitted: xx/xx/xx

Director Signature: Randy Levine via email

NOTES: 1. Travel the day before and/or after an authorized meeting or seminar outside of LA, Ventura and Orange Counties may be paid in accordance with Board Policy. 2. Attach completed Statement of Account and Claim for Personally Incurred Expenses form.



DATE: July 21, 2026
TO: Board of Directors
FROM: External Affairs

SUBJECT: Online Billing Presentment Services: Contract Extension

SUMMARY:

Since August 2016, the District has utilized the services of InvoiceCloud, Inc., for online billing and presentment services that allows customers to view their bills online. With these services, the District has been able to expand its customer payment options, maximize customer participation in eBilling and AutoPay options, and improve the overall level of service provided to customers. Staff requests authorization to execute a one-year contract extension with four one-year renewal options with InvoiceCloud, Inc., for these services at the current annual not-to-exceed amount of \$155,000.

RECOMMENDATION(S):

Authorize the General Manager to execute a one-year contract extension with four one-year renewal options with InvoiceCloud, Inc., in an annual amount not-to-exceed \$155,000, for online billing and presentment services.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The cost of the work is expected to be \$155,000 annually, which has remained unchanged since 2016. Sufficient funds are available in the adopted Fiscal Year 2026-27 Budget and will be recommended in proposed future fiscal year budgets.

DISCUSSION:

Beginning in August 2016, InvoiceCloud, Inc., has provided the District's customers with enhanced online options. With InvoiceCloud, Inc., customers can view their utility bills online,

sign up for e-Billing, receive email reminders and text alerts, pay-by-text, make scheduled payments and process payments via AutoPay.

The District currently has 18,500 customers who are enrolled with InvoiceCloud. Of those enrolled customers, 12,724 currently subscribe to the e-Billing services, and 14,087 are registered for AutoPay. These figures continue to rise slowly over time. Staff has researched InvoiceCloud's fees and found that the pricing for the annual extensions is competitive. It is noteworthy that the District has not had to increase this contract amount since 2016. As a result, staff recommends authorization to extend the contract with Invoice Cloud for one-year with four one-year renewal options.

GOALS:

Provide Excellent Services that Exceed Customer's Expectation

Prepared by: Ursula Bosson, Customer Service Manager



DATE: July 21, 2026
TO: Board of Directors
FROM: Human Resources and Risk Management

SUBJECT: Contract for Retired Annuitant Part-Time Limited Duration Assignment: Increase

SUMMARY:

On February 2, 2026, Robert Stanwood commenced work as a retired annuitant to assist the Water Operations Department with a backlog of assignments. Mr. Stanwood possesses the required specialized expertise to provide needed support to the District for a limited duration. The assignment was originally anticipated to last six months, but there is a need to extend the assignment for an additional six months.

Government Code Sections 21224(a) and 7522.56(c) permit retired annuitants under the California Public Employees' Retirement System (CALPERS) to be employed without reinstatement from retirement upon appointment by a public agency when the retired person has specialized skills needed in performing work of limited duration. Staff recommends an increase of \$30,000 to the contract for Mr. Stanwood's part-time, limited duration assignment, from \$50,000 to \$80,000.

RECOMMENDATION(S):

Authorize an increase of \$30,000 to the contract for the part-time, limited duration assignment for retired annuitant, Robert Stanwood, from \$50,000 to \$80,000.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The cost of this action is \$30,000. Sufficient funds are available in the adopted Fiscal Year 2026-27 Budget for this purpose due to salary savings associated with vacant positions.

Currently, up to \$50,000 is authorized for the assignment. Staff proposes increasing the total amount authorized to \$80,000 to align with the anticipated duration and hours of the assignment.

DISCUSSION:

Retired Annuitant Robert Stanwood's current assignment commenced on February 2, 2026, and was originally projected to last up to six months. However, the Department still has a need for Mr. Stanwood's services based on the current and anticipated workload and proposes to extend Mr. Stanwood's assignment by six months. The assignment is projected to reach the General Manager's purchasing authority by the extended end date of the assignment. Therefore, Board approval is needed to increase the funds for the assignment to exceed the General Manager's purchasing authority to reflect the additional six months of work.

During his current assignment, Mr. Stanwood has been assisting the Field Operations Unit of the Water Systems Division with performing regulator, meter, and angle stop replacements, as well as providing training and mentorship to field operations technician staff. A vacancy and a leave of absence within the unit occurred during Mr. Stanwood's assignment. Extending the assignment will provide the division with additional support while they get back to stable staffing levels over the next few months. The Department continues to make significant progress in the Pressure Regulator Replacement Program, in which Mr. Stanwood has played a critical role.

Mr. Stanwood previously worked for the District in this capacity for over 10 years; therefore, he has specialized skills to perform the part-time limited duration services needed by the District. There is currently no non-retiree available to the District to perform this work that requires immediate specialized knowledge. The assignment is permitted by CalPERS regulations provided that all of its regulations pertaining to retired annuitant assignments are adhered to by the District and the retired annuitant. Staff will continue to monitor the retired annuitant assignment to ensure it adheres to such regulations.

GOALS:

Provide Safe and Quality Water with Reliable Services

Prepared by: Sophia Crocker, Director of Human Resources and Risk
Management



DATE: July 21, 2026
TO: Board of Directors
FROM: Engineering and Facilities

SUBJECT: McCoy Tank Rehabilitation Project: Change Order No. 1

SUMMARY:

On November 19, 2025, the Board awarded a construction contract to Cal Sierra Construction, Inc., in the amount of \$1,976,106.70, for the McCoy Tank Rehabilitation Project. The scope of work generally includes recoating the interior and exterior of the tank and replacement of deteriorated appurtenances. The original bid also included a bid alternative for full roof replacement should it be deemed necessary. Based on the condition of the roof observed during construction activities, staff recommends exercising this bid alternate.

Staff recommends that the Board authorize the General Manager to execute Change Order No. 1 with Cal Sierra Construction, Inc., in the amount of \$678,425, for full roof and rafter replacement as part of the McCoy Tank Rehabilitation Project, increasing the total construction contract amount from \$1,976,106.70 to \$2,654,531.70, and extending the contract duration by 348 calendar days.

RECOMMENDATION(S):

Authorize the General Manager to execute Change Order No. 1 with Cal Sierra Construction, Inc., in the amount of \$678,425, for full roof and rafter replacement as part of the McCoy Tank Rehabilitation Project, increasing the total construction contract amount from \$1,976,106.70 to \$2,654,531.70, and extending the contract duration by 348 calendar days.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The cost of proposed Change Order No. 1 is \$678,425, representing the alternative bid item

for full roof and rafter replacement that was included in the original bid documents plus installation of a new roof halo. The change order would increase the total construction contract amount from \$1,976,106.70 to \$2,654,531.70. Sufficient funding is available via CIP Job No. 10757 included in the adopted Fiscal Year 2026-27 Budget.

DISCUSSION:

Each year, the District completes inspections and cleaning of five of its 26 potable water tanks. Inspection reports are utilized to develop and maintain the Tank Condition Assessment and Rehabilitation Program, which identifies tanks in need of maintenance and prioritizes rehabilitation projects accordingly. In 2023, a Sanitary Survey completed by the State Water Resources Control Board, Division of Drinking Water (DDW), identified the need for rehabilitation of Jed Smith Tank No. 1, McCoy Tank, and the Calabasas Tank.

On November 21, 2023, the Board authorized a professional services agreement with Cannon Corporation for design, bidding, and engineering support through construction services for the Jed Smith Tank No. 1, McCoy Tank, and Calabasas Tank Rehabilitation Projects. McCoy Tank, located near Cordova Drive in the City of Calabasas, is a two-million-gallon steel potable water storage tank installed in 1990. It serves the 1,476-foot pressure zone, providing water supply and fire protection to the Calabasas Hills neighborhoods.

On September 2, 2025, the Board authorized a Call for Bids for the McCoy Tank Rehabilitation Project and determined the project was exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15301(b) of the CEQA Guidelines. A total of five responsible bids were received and publicly opened on October 23, 2025. Staff evaluated the bids and determined the lowest responsible bid to be from Cal Sierra Construction, Inc., in the amount of \$1,976,106.70. An alternative item for full roof replacement was part of this bid. The base bid plus alternative bid for Cal Sierra Construction, Inc., was also lower than the next responsible bidder.

On November 19, 2025, the Board awarded the construction contract to Cal Sierra Construction, Inc., in the amount of \$1,976,106.70, for the McCoy Tank Rehabilitation Project. The scope of work generally includes recoating the interior and exterior of the tank and replacement of deteriorated appurtenances, with temporary storage provided by the contractor during the time the tank is emptied for interior coating work. The base bid included bid items for spot repairs on the roof and rafters; however, the bid also included an alternative for full replacement to give staff clarity on the cost of full roof replacement should it be deemed necessary. At the time of contract award, staff shared with the Board that if full replacement were required, exercising the bid alternate for roof replacement would cost an additional \$503,625, and staff would return to the Board for authorization of an associated change order.

The original \$503,625 bid alternate for roof replacement included removal and replacement of 40 rafters (the tank has 84 rafters in total). The majority of corrosion within the tank is along the rafters, which are original. Based on the condition of the rafters, staff recommends replacement of all 84 rafters at the bid unit price of \$1,856.25 per rafter. This brings the cost of rafters from \$74,250 to \$155,925, a \$81,675 increase. Replacing all rafters eliminates the need for rafter repair (Bid Item No. 12), which will serve as a credit of \$20,000. Replacement and proper coating will ensure reliability of the new roof and tank well into the future. Through this capital investment, the District is able to replace the most corroded elements of the tank and increase the service life of the facility by approximately 30 years. The resulting total

construction contract amount including proposed Change Order No. 1 remains less than the next highest bid price from the original October 2025 construction bids.

Full roof replacement would extend the construction timeline into 2027. The McCoy tank is operating with reduced storage during construction and with peak summer use approaching, operations staff recommends that the full roof replacement work be deferred to when demands are lower. If approved, the full roof replacement would begin when demands are reduced and weather allows. In the interim, a new roof support halo would be procured and installed for structural stability. Roof halos are more common in newer tanks and act as a center column to support the rafters, roof, and new vent. Procurement and installation of the new ring roof halo is included in Change Order No. 1, in the amount of \$110,625, and is a facility improvement that will benefit the tank over the coming maintenance cycles, during future rehabilitation projects, and will provide additional support during this interim period until the full roof replacement may be accomplished.

Changes in wildfire behavior have made the risk of wildfire a year-round concern. As McCoy is one of the District's largest reservoirs, it is critical to operations that the project be completed during the period of reduced water demand between annual summer peak usage. Staff intends to monitor weather conditions and issue a Notice to Proceed (NTP) following rain events that may reduce the risk of wildfire in the region. The work is anticipated to take five to six months after issuance of the NTP. There is no longer an optimal time to take a reservoir out of service, yet it is necessary to perform this critical repair to maintain the reservoir in safe and reliable operating condition. The requested flexibility in NTP issuance will allow staff to schedule the work after fire conditions are assessed later this year, reducing the likelihood that this critical reservoir would be out of service during a wildfire emergency, when it is needed most to protect public health, safety, and reliable water service. Finally, a contract extension of 348 calendar days will bring the contract completion date to April 15, 2027.

GOALS:

Construct, Manage and Maintain all Facilities and Provide Services to Assure System Reliability and Environmental Compatibility

Prepared by: John Soderberg, PE, Associate Engineer

ATTACHMENTS:

[Proposed Change Order No. 1](#)



CONTRACT CHANGE ORDER No. 1

4232 Las Virgenes Road
Calabasas, California 91302-1994

Project: McCoy Tank Rehabilitation

Project No CIP 10757

Contract No. 3260087

Contractor: Cal Sierra Construction, Inc.

Date: 6/2/2026

CONTRACTOR CHANGE ORDER NO. 1 The Contractor is hereby authorized and directed to make the herein described changes from the Plans and Specifications or do the following work not included in the Plans and Specifications for the construction of this project.

This change requested by: John Soderberg

DESCRIPTION OF CHANGE:

	Description	Amount
1.	Exercise alternative bid item #31, remove and replace entire outer rafter	\$46,406.25
2.	Exercise alternative bid item #32, remove and replace entire inner rafter	\$27,843.75
3.	Exercise alternative bid item #33, remove and replace entire roof	\$429,375.00
4.	Credits for exercising above alternatives (deduction of line item 13)	(\$20,000.00)
5.	Installation of new roof halo, to support existing rafters and improve current and future coating timelines.	\$113,125.00
6.	A Notice to Proceed for the work associated with this change order will be issued when operationally feasible. The duration for remaining work is expected to be 168 calendar days.	\$0.00

TOTAL INCREASE AT AGREED PROCESS OR FORCE ACCOUNT **\$596,750.00**

Project: McCoy Tank Rehabilitation

Project No. CIP 10757

Contract No. 3260087

Contractor: Cal Sierra Construction, Inc.

Date: 6/2/2026

(2) Estimate of increases and/or decreases in contract items at contract unit prices:

INCREASES

Item	Description	Quantity	Unit Price	Total
31	REMOVE AND REPLACE ENTIRE OUTER RAFTER	31	\$1856.25	\$57,543.75
31	REMOVE AND REPLACE ENTIRE INNER RAFTER	14	\$1856.25	\$24,131.25
TOTAL INCREASES				<u>\$81,675.00</u>

DECREASES

Item	Description	Quantity	Unit Price	Total
TOTAL DECREASES				_____

TOTAL NET INCREASE IN CONTRACT ITEMS AT CONTRACT UNIT PRICES \$81,675.00

TOTAL COST OF THIS CHANGE ORDER \$678,425.00 INCREASE

It is agreed 425 calendar days extension of time will be allowed by reason of this change.

Recommended by _____

Departmental Approval _____

John Soderberg
Associate Engineer

Eric Schlageter
Director of Engineering and Facilities

ACCEPTED:

APPROVED:

Cal Sierra Construction, Inc.

Las Virgenes Municipal Water District

By: _____
Marco Lucich

By: _____
David W. Pedersen, General Manager

Date: _____

Date: _____

Note: Attention is called to the sections of the Special Provisions and Standard Provisions on EXTRA, ADDITIONAL OR OMITTED WORK.

☒ THIS CHANGE ORDER IS NOT EFFECTIVE UNTIL APPROVED BY OWNER

☐ IF ACCEPTABLE TO THE CONTRACTOR, THIS CHANGE ORDER IS EFFECTIVE IMMEDIATELY



DATE: July 21, 2026
TO: Board of Directors
FROM: Engineering and Facilities

SUBJECT: Westlake Filtration Plant Forklift Replacement: Authorization

SUMMARY:

Staff recommends replacement of the existing 40-year-old forklift at the Westlake Filtration Plant, which has exceeded its useful life and is no longer cost-effective to maintain. A zero-emission model is recommended to ensure compliance with the California Air Resources Board's (CARB) Zero-Emission Forklift Regulation that prohibits public agencies from purchasing new propane or gasoline-fueled Class IV and Class V forklifts beginning on January 1, 2026. Board authorization is recommended to approve the proposed replacement, which will enable the District to maintain operational reliability while meeting state-mandated emissions standards for public fleet equipment.

The District contacted two different Sourcewell manufacturers: Toyota Material Handling Solutions and National Lift Fleet Leasing & Sales. Staff recommends the purchase of a new Bobcat Pro 7 Series B25X-7 80V zero-emission forklift through Sourcewell, in the amount of \$71,689.22, plus applicable sales tax, for a total purchase of \$78,678.92.

RECOMMENDATION(S):

Authorize the General Manager to issue a purchase order to National Lift Fleet Leasing & Sales, in the amount of \$78,678.92, for a new Bobcat Pro 7 Series B25X-7 80V zero-emission forklift.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The cost of this action is \$78,678.92. Sufficient funds are available in the adopted Fiscal Year

2026-27 Budget under CIP Job No. 202515. No additional appropriation is required.

DISCUSSION:

The transition to a zero-emission forklift at the Westlake Filtration Plant represents a significant operational and regulatory milestone for the District. The impetus for the project is rooted in the California Air Resources Board's (CARB) Zero-Emission Forklift Regulation, which mandates that public agencies cease the purchase of new propane or gasoline-fueled Class IV and Class V forklifts beginning on January 1, 2026. This regulatory requirement, codified following approval by the Office of Administrative Law, is part of a broader statewide strategy to reduce greenhouse gas emissions and accelerate the adoption of zero-emission technologies in public sector fleets. The regulation specifically targets large spark-ignition forklifts, recognizing their prevalence in municipal and industrial operations and their contribution to local air quality impacts. Public agencies are required to develop and implement replacement strategies for affected equipment with phased compliance deadlines for both new acquisitions and the eventual retirement of older internal combustion models.

In anticipation of these requirements, staff initiated a comprehensive review of the existing forklift fleet, focusing on operational needs, duty cycles, and the technical feasibility of zero-emission alternatives. This review included an assessment of available electric forklift models, their performance specifications, and compatibility with the facility's material handling requirements. Staff also evaluated infrastructure needs, such as charging capacity and electrical upgrades, to ensure seamless integration of the new equipment into daily operations. The evaluation process incorporated lessons learned from peer agencies and regional partners who have undertaken similar transitions, as well as input from industry vendors and manufacturers.

The vendor selection process prioritized equipment reliability, safety features, and total cost of ownership with particular attention to models offering advanced lithium-ion battery technology and robust warranty support. The recommended model, as detailed in the procurement documentation, features enhanced operator safety systems, ergonomic controls, and energy-efficient drive components. The procurement process adhered to public sector purchasing requirements, including competitive solicitation.

Staff contacted two Sourcwell qualified manufacturers. Their quotes are as follows:

Toyota Material Handling Solutions - \$85,281.00
National Lift Fleet Leasing & Sales - \$78,678.92

GOALS:

Construct, Manage and Maintain all Facilities and Provide Services to Assure System Reliability and Environmental Compatibility

Prepared by: Shawn Triplett, Facilities Maintenance Supervisor

ATTACHMENTS:

[Quote by National Lift Fleet Leasing & Sales](#)
[Quote by Toyota Material Handling Solutions](#)



June 22, 2026



LVMWD

4232 Las Virgenes Rd
Calabasas, CA 91302-1994

Deliver to:

**32601 Torchwood Place
Westlake Village, CA**

T: 818-482-5271

**Attn: Mr. Spencer Kratochvil
Mr. Shawn Triplett**



In today's market we understand you have choices. Thank you for considering National Lift Fleet Leasing & Sales to support **LVMWD's** Material Handling Equipment needs. Please find the following for your review and approval:

One (1) New Bobcat "Pro 7 Series" Electric Powered Li-Ion Pneumatic Tire Forklift

Model: B25X-7, 80V

Basic Capacity @ 24" Load Center:

5,000 lbs.

Net De-Rated Capacity @24" Load Center:

4,600 lbs. (with Int SSFP,Solid Pneum) to 189"

Maximum Fork Height:

189"

Mast Overall Height Lowered:

86"

Forks:

2" x 4"x 59" Pallet Type

Mast:

Full Free Lift Triple Stage

Tilt:

6 Degrees Forward / 9 Degrees Back

Hydraulics:

4 Section with 4 Levers

Load Backrest:

40" High x 38" Wide

Overhead Guard:

83.5"

Lights:

2 Front and 1 Rear Floodlights; Amber Strobe

Tires:

Solid Pneumatic

Additional Equipment Included:

Integral Side-shifting Fork-positioner

Attachment, Rearview Mirrors, Back Up Alarm,
Rear Grab Bar with Horn, Vinyl Suspension Seat,
Enclosed Drive and Pump Motors IP54

Bobcat Features:

- Design Offers Improved Visibility and Ergonomic Hydraulic Controls.
- Overall Reduction in Operating Costs
- AC Drive and Hydraulic Motors Deliver Smooth and Seamless Power with Minimal Energy Consumption
- Electromagnetic Auto Parking Brake (EPB) Prevents Forklift from Rolling Back
- IP54 Rated Enclosed Drive and Pump Motor
- IP65 Rated Sealed Controllers for Water Resistance
- Easy and Instinctive Instrument Panel
- Maximized Productivity in Warehouse Applications
- Increased Visibility
- Chains and Hydraulic Hoses Neatly Arranged for Clear View through Mast
- Full Adjustable Steering Column and Suspension Seat
- Large Step Plate with Anti-Slip Pattern Ensures Firm Footing
- Easy Grip Bar Makes Entering and Exiting Machine Safer
- Guardian Stability System (GSS) Protects Operator and the Load to Reduce Risk of Accidents
- Battery Discharge Indicator – Lifting Will be Disabled if Battery is Discharged to 20% During Operation
- Automatic Speed Control when Turning Corners
- Operator Sensing System (OSS) – If Operator Leaves Seat, OSS Automatically Restricts Truck
- Movement and Lift, Lower and Tilt Functions
- Seat Belt Indicator Warning Light Flashes when Seat Belt is Unfastened

Factory Warranty **1 Years or 2,000 Hours Complete (Parts and Labor) Basic Warranty**
Warrants your new Doosan forklift free of defects in material and workmanship
2 Years or 4,000 Hours Major Components (Parts & Labor) Powertrain Warranty
Warrants major components:
5 Years or 10,000 Hours (Parts and Labor) Oil-Cooled Disc Brakes
2 Years or 4,000 Hours Lithium Battery PDU and Electrical Components
6 years or 12,000 Hours Lithium Battery Cells and Modules
2 Years or 4,000 Hours Lithium Charger

Power Source: New Bobcat 80 volt 600ah **Lithium Ion Battery** and Matching Charger Set at 480v/3phase 300 Amp Out.

Must be installed by a certified electrician- Not supplied by NLFL

Delivered Price: **\$71,689.22 Each, Plus Tax (if applicable)**

Lead Time: 16 Weeks After Factory Confirmation of Order
Quote Valid for 30 Days
Includes Delivery to Westlake Village CA

Available Terms**I. Net on Delivery**

Available Terms

I. Net on Delivery

****Please inquire about available finance terms****

TERMS FOR ACCEPTANCE OF PROPOSAL AND ATTACHMENTS

The information contained within this proposal is the property of National Lift Fleet Leasing & Sales (NLFL) and is confidential and proprietary. Upon acceptance, prospective buyer agrees not to publish, copy or reproduce the contents without the expressed written consent of NLFL. **LVMWD.** agrees not to use any such information for any other purpose than for the consideration of a NLFL supplied systems and will return any or all information contained herein to NLFL upon request.

Thank you for the opportunity to provide you with Material Handling Equipment. If you have any questions, please feel free to contact me. To move forward with this agreement please sign below and return to BFranzen@nlfl.com.

Respectfully,

Bree Franzen

Bree Franzen, Account Manager
805-795-8102 BFranzen@nlfl.com

Accepted:

By: _____

Title: _____

Date: _____

To: LAS VIRGENES MUNICIPAL WATER DIST
4232 Las Virgenes Rd
Calabasas, CA 91302-3589

Date: June 29, 2026
Quote No: 0130163016

Attn: Spencer Kratochvil

Phone: 818-251-2100

We respectfully submit this quotation for the following NEW Toyota Electric Lift Truck (1 each):

Toyota...Proud to be the world's #1 forklift manufacturer!

TOYOTA MODEL 8FBC25U, 4-Wheel Sit-Down AC Electric Lift Truck, quality engineered with the following specifications:

- Cushion Tires
- Electric Battery Powered

SYSTEM OF ACTIVE STABILITY™ (SAS)

Automatically detects potentially unsafe conditions and engages additional safety features for increased operator protection and reduced product and forklift damage.

- **Active Control Rear Stabilizer:**
Monitors vehicle speed, fork height, load weight, and angular acceleration and engages the stabilizer in potentially unstable lateral conditions to reduce the likelihood of a tip over.
- **Active Mast Function Controller (AMC):**
Limits forward tilt and/or backward tilt speed when potentially unstable longitudinal conditions are detected.



Photo may portray optional equipment not included in your quotation.

AUTOMATIC PARKING BRAKE

Applies once the truck comes to a complete stop and the operator leaves the seat.

AC DRIVE AND LIFT MOTORS

Designed and built by Toyota to deliver powerful, smooth, and efficient performance shift after shift.

LCD COLOR MULTI-FUNCTION DISPLAY

Puts customizable performance, operational data, and diagnostics right at your fingertips.

SPACIOUS OPERATOR COMPARTMENT

With standard 4-way adjustable, full suspension seat, utility tray, and expansive legroom for increased comfort.

Mast	3-Stage (FSV) mast with full free lift provides excellent visibility to load and fork tips, while providing smooth, quiet and consistent operation. Mast Specifications: • Maximum Fork Height - 237.5" • Overall Lowered Height - 101.0" • Over Head Guard Height - 88.00" • Free Lift - 53.0" with standard Load Backrest	
Lifting Capacity	Base Model Capacity – 5,000 lbs @24" load center Actual Capacity, based on quoted specifications - 3,800 lbs @24" load center to 237.5" MFH <i>Actual capacity ratings stated above are based on standard features, options, and attachments available through Toyota at the time of quoting. Non-standard features, options, and attachments may affect actual capacity ratings. Please contact your Toyota sales representative for additional information.</i>	
Tilt	6 degrees forward and 5 degrees backwards	
Carriage	ITA Hook Type, 36" Carriage	
Forks	48" Tapered Forks	
Load Backrest	48" High Load Backrest	
Attachments	Cascade Hang-on Sideshifting Fork Positioner (Requires 4-Way Valve w/ 3rd and 4th Function Hydraulics)	
Speeds	Travel Speed: 11.80 mph	Lift Speed: 132 fpm
Voltage	48 Volt Electrical System	
Steering	Hydrostatic (On Demand) Power Steering	
Wheels and Tires	Front Tires: 21x7x15 (Wide Tread) Rear Tires: 16x5x10.5	
Battery Compartment	30.5" (L) x 39.1" (W) x 23.8" (H)	
Additional Equipment Included	• Cascade Hang-On Side Shifting Fork Positioner (K Series) • 48 Volt Model • Steering Wheel with Knob	

- Poly Carbonate OHG Cover
- Glass Rear View Mirrors (Left & Right)
- Rear Pillar Assist Grip with Horn Button
- Dual USB Charger
- Pencil & Tape Holder
- Fire Extinguisher 2.5 lb
- LED Strobe Light (Amber)
- LED Front Combination Light
- LED Rear Combination Light
- LED Rear Working Light, Reverse Activated
- Wide Tread
- MyInsights Plus
- Toyota Lithium Ion Battery: D02B Toyota 5/35 48V LiB 604Ah
- ACT Charger Accessories: 90906-U0280-71 Floor Retra Kit
- ACT Charger: 90906-U0135-71 48V LiB Charger

**Other Outstanding
Toyota Features**

- Regenerative Braking
- (ON DEMAND) Full Hydraulic Power Steering
- Programmable Auto-Shut off
- Operator Presence Sensing System (OPSS)
- Travel Power Control (Programmable Acceleration)
- Planned Maintenance Indicator
- Automatic Parking Brake
- Synchronized Steering
- Adjustable Headlights with Guards
- Electronic Shift Control
- 11.8" Two spoke steering wheel
- Dual Operator Assist Grips
- Dash Integrated Pen/Pencil/Cup Holder
- Durable Rubber Floor Mat
- Dash Mounted Cup Holder
- Digital Multifunction Display with built in Analyzer
- CAN-BUS controller wiring

Some standard items listed within this quotation may be replaced or altered due to optional equipment.

**MyInsights
(Telematics)**

Standard telematics provided on most Toyota forklifts deliver valuable insights and actionable data for your business. Increase uptime, optimize your fleet, and view detailed analytics by completing your free registration at my.toyotaforklift.com today!

Standard Insights:

- Hour Meters, Error Codes, Impact Detection, Location Tracking

Included with your 24 months of MyInsights Plus:

- Additional hour meters (travel, lift, operator presence, activity)
- Advanced analytical reports (impacts, utilization, errors)
- Configurable event alerts via text or email
- Geofencing, zone alerts, and historical event playback
- Periodic maintenance alerts

Warranty

12 Months or 2,000 hours whichever occurs first: Basic
36 Months or 6,000 hours whichever occurs first: Powertrain

Warranty coverage for non-standard option components will be covered by the manufacturer of that component and not covered under the Toyota forklift standard or powertrain warranty.

We offer a Toyota factory authorized warranty on all new Toyota Material Handling Equipment.

Toyota 360 Support

Toyota 360 Support Plus 5
60 Months/10,000 Hrs Carriage to Counterweight Warranty
60 Months/10,000 Hrs Major Parts and Component Warranty
Up to First (4) PM's Included (Parts and Labor)

TMH reserves the right to accept or decline any application for enrollment into the T360 Plus warranty plan.

Investment

Price-Toyota Model 8FBC25U as specified above:
Net Price:

\$85,281	Each
\$85,281	Each

**Financing and
Maintenance**

Toyota Industries Commercial Finance has been providing effective finance solutions to customers since 1985. As Toyota Material Handling's captive finance partner, we are committed to offering customized financing solutions, tailored financing terms, unmatched industry experience, ultimate transparency, and an unparalleled understanding of your unique business needs. In addition, Full Maintenance and Planned Maintenance programs are available.

**Terms and Condi-
tions**

Delivery: Will advise at time of order

Lease Offerings: Subject to credit approval

Payment Terms: Contingent upon credit evaluation // Either Net ten (10) days or cash-on-delivery (COD) if not financed by approved financial entity.

F.O.B.: Delivered

Prices are exclusive of any sales or use taxes now in force or which may be made effective in the future by any federal, state, or local governments.

Lease offerings subject to credit approval.

This quote is valid for SEVEN (7) DAYS from the date of the quotation listed on the top of page one. All finance rates are subject to change based on the PRE-VAILING FINANCE RATE in effect at the time of delivery.

Performance and specifications stated are based on specific testing and operating conditions. Actual performance and specifications may vary based on application, option configuration, operating conditions, and environmental factors. Some options and configurations may void UL.

A storage fee of fifty dollars (\$50.00) per day, per unit, will be charged for units held more than thirty (30) days beyond the agreed delivery date.

CANCELLATION AFTER ORDER IS PLACED WILL RESULT IN A RESTOCKING CHARGE OF TWENTY PERCENT (20%) OF THE SALE PRICE.

Shipping and delivery dates are estimates based upon conditions prevailing at the time of quotation.

Seller shall not be liable for delays due to: changes made by Purchaser, Acts of God, supplier delays, strikes, floods, epidemics, war, and all other causes beyond Seller's control.

In the event of such delay, the delivery shall be extended by the amount of time incurred as a result of the delay.

If delivery is delayed as a result of acts by Purchaser, Seller shall have the option of requesting payment from Purchaser on such date as delivery was to have occurred as provided in the Proposal.

Purchaser shall pay any and all expenses incurred by Seller due to Purchaser's responsibility for the delay.

PRE-SHIPMENT PRICE INCREASES

We may, on one or more occasions, increase the price of the ordered equipment, and you shall pay the increased prices, if up to 30 days prior to date of shipment, (a) the U.S. Material Handling Equipment Producer Price Index ("MHEPPI") has increased four percent (4%) or more as compared to the MHEPPI as of the date of customer's proposal acceptance; or (b) the manufacturer of the equipment increases the price the seller pays the manufacturer for the ordered equipment due to any new or increased government fees, tariffs or duties. Price increases will correlate to, as applicable, the percentage increase in the MHEPPI or manufacturer price increase.

TOYOTA ENERGY SOLUTIONS

The applicable quoted price for the Toyota branded batteries, chargers, and accessories (collectively, the "Energy Products") represents the estimated price only and is subject to change. The final price for the Energy Products will be as set forth on the order confirmation that is communicated to you when the truck ETA matches the lead time of the Energy Products. Freight costs for the Energy Products are not included in the price. You are responsible for all freight costs.

Please contact Energy.Support@toyotatmh.com for a freight quote. Energy Products are warranted separately and are not covered by the equipment warranty. IN NO EVENT SHALL SELLER or its suppliers, licensors, affiliates, or parent entities be liable for any damage to persons or property that results from customer's (including its employees or agents) misuse, neglect, abuse, or improper storage of any goods including energy products or failure to use any goods including energy products in accordance with Seller-provided or manufacturer-provided documentation.

TELEMATICS AND DATA COLLECTION

The equipment in this proposal is enabled with the MyInsights system ("System"), which collects certain location and operational data concerning the equipment and transmits it to Toyota Material Handling, Inc. for processing and analytics. Your use of the System is subject to the MyInsights Master Agreement or other written agreement explicitly governing your use of the System between you and Toyota Material Handling, Inc. (the "System Master Agreement"). If you and Toyota Material Handling, Inc. are not parties to a System Master Agreement, your use of the System is subject to the MyInsights Telematics Terms and Conditions found at <https://www.toyotaforklift.com/myinsights-legal> ("System Terms"), which are incorporated herein by reference. Your acceptance of this proposal (as provided in the following paragraph), or otherwise using the equipment, constitutes your acceptance of the System Terms and the formation of an agreement between you and Toyota Material Handling, Inc. based on the System Terms. You may opt out of data collection features for the System as provided in, as applicable, the System Master Agreement and System Terms. Failure to opt out signifies your consent and agreement to the collection and usage of data in accordance with, as applicable, the System Master Agreement and System Terms.

QUOTE ACCEPTANCE

This proposal constitutes an offer by us that you may only accept on the terms set forth herein. To accept our offer, you shall (a) sign and return the signed proposal to us; or (b) issue a purchase order that attaches or otherwise references this proposal. If you issue a purchase order under the preceding sentence, the parties acknowledge that any terms (including pre-printed terms) appearing thereon will have no effect and are expressly disclaimed and your acceptance is limited to the terms of this proposal. Your acceptance of any item offered hereunder will be deemed an acceptance of all terms set forth in this proposal.

Servicing Dealer Toyota Material Handling Solutions
12012 Burke St,
Santa Fe Springs, CA, 90670-2676
Phone:562-941-4155

Sincerely,
Toyota Material Handling Solutions

Accepted:
LAS VIRGENES MUNICIPAL WATER DIST

Cash Price \$ _____

Financed Payment* \$ _____ *Per Month* _____ *Months*

By: _____

Name: Henry Salazar

Title:

By: _____

Name: _____

Title: _____

Date: _____

*Financing requires credit approval. Terms and conditions are subject to change.

Optional Equipment
(not included in this Quotation)

Item	Price	Accepted*
MyInsights Plus Compliance Subscription	\$17.95	
MyInsights Display	\$1050.00	

** Customer: please signify acceptance of an option by initialing in the space provided.*

Addendum A – Additional Terms and Conditions

Quantity of Units:

Email: _____

Purchase Order Number (if required): _____

Delivery Hours: _____

Ground or Dock Delivery:

If financing, provide Insurance Name: _____

Phone: _____

If electric unit, provide Building Voltage: _____

Planned Maintenance Authorization: T360

☐ Yes, I would like Planned Maintenance

Planned Maintenance Authorization: ☐ Yes ☐ No

Price: \$_____ + \$_____ MFC

Choose Interval:

☐ 30 Day ☐ 60 Day ☐ 90 Day

☐ No, I am not interested in Planned Maintenance

If No, please provide explanation number from below:

☐ Service Already Provided by TMHS

☐ Service Being Provided by 3rd Party

☐ Service is Handled In-House

☐ Service is On-Call

The Metropolitan Water District of Southern California

The mission of the Metropolitan Water District of Southern California is to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

Agenda

Board of Directors - Final - Revised 2

July 14, 2026

11:30 AM

Tuesday, July 14, 2026
Meeting Schedule

09:00 a.m. FAAME
10:00 a.m. ETHICS
11:00 a.m. BREAK
11:30 a.m. BOD

To livestream the meetings on the internet: [click here](#).

Members of the public may present their comments to the Board and Committees on matters within their jurisdiction in real-time during the public comment section of the meeting by teleconference and in-person. To attend remotely or to provide public comment dial 1-877-853-5257 and enter meeting ID: 891 1613 4145 or to join through the internet [click here](#).

Written public comments sent to BoardPublicComment@mwdh2o.com and received by 3:00 p.m. the business day before the meeting is scheduled are sent to the Board and will be posted under the Submitted Items and Responses tab available here: <https://mwdh2o.legistar.com/Legislation.aspx>. Written comments not received on time will not be included in the record for that meeting. Comments within the subject matter jurisdiction will be sent after the meeting for the record of the next meeting.

Disclaimer: Written and oral public comments are received in compliance with the Ralph M. Brown Act. Please note that Metropolitan does not endorse or ensure the accuracy or reliability of the information provided as public comment or by third parties.

MWD Headquarters Building • 700 N. Alameda Street • Los Angeles, CA 90012

Teleconference Locations:

3008 W. 82nd Place • Inglewood, CA 90305

Fullerton City Hall • 303 W. Commonwealth Avenue, Chambers • Fullerton, CA 92832

Santa Ana City Hall • 20 Civic Center Plaza, 8th Floor • Santa Ana, CA 92701

Allendale Insurance Agency • 337 West Foothill Boulevard • Glendora, CA 91740

4616 E. Warwood Road • Long Beach, CA 90808

Scripps Institution of Oceanography • MESOM 208 • 8885 Biological Grade • La Jolla, CA 92037

- * Translated Agendas [21-6029](#)

Attachments: [07142026 BOD Agenda - Armenian](#)
[07142026 BOD Agenda - Chinese Mandarin](#)
[07142026 BOD Agenda - Spanish](#)

Agendas are translated by a digital translation service. Metropolitan does not guarantee accuracy of any translation.

1. Call to Order

- a. Invocation: Board Vice Chair Juan Garza, Central Basin Municipal Water District
- b. Pledge of Allegiance

2. Roll Call

3. Determination of a Quorum

4. Opportunity for members of the public to address the Board on matters within the Board's jurisdiction. (As required by Gov. Code §54954.3(a))

5. OTHER MATTERS AND REPORTS

- A. Report on Director's Metropolitan Expenses [21-5718](#)

Attachments: [07142026 BOD 5A Report](#)

- B. Chair's Monthly Activity Report [21-5719](#)

Attachments: [07142026 BOD 5B Report](#)

- C. General Manager's summary of activities [21-5720](#)

Attachments: [07142026 BOD 5C Report](#)

- D. General Counsel's summary of activities [21-5721](#)

Attachments: [07142026 BOD 5D Report](#)

- E. General Auditor's summary of activities [21-5722](#)

Attachments: [07142026 BOD 5E Report](#)

- F. Ethics Officer's summary of activities [21-5723](#)

**** CONSENT CALENDAR ****

6. BOARD CONSENT ITEMS

- A. Approve the Minutes of the Board of Directors of June 9, 2026, and the Special Joint Board of Directors and Executive Committee of May 26, 2026 and June 23, 2026 [21-5724](#)
- B. Approve Commendatory Resolution for Director Jacquelyn McMillan representing Calleguas Municipal Water District [21-6038](#)
- C. Approve Committee Assignments [21-5725](#)

7. BOARD LETTERS CONSENT

- 7-1 Award a \$7,159,500 contract to Shimmick Construction Company Inc. to replace two radial gates along the San Diego Canal and authorize an increase of \$515,000 to an agreement with Lee & Ro Inc. for a new not-to-exceed amount of \$1,419,000 for technical support during construction; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (EOT) [21-5988](#)

Attachments: [07142026 EOT 7-1 B-L](#)
[07132026 EOT 7-1 Presentation](#)

- 7-2 Authorize an increase of \$2,750,000 to an existing agreement with Pure Technologies U.S. Inc. for a new not-to-exceed amount of \$9,750,000 for inspections and analysis of Prestressed Concrete Cylinder Pipe; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (EOT) [21-5989](#)

Attachments: [07142026 EOT 7-2 B-L](#)
[07132026 EOT 7-2 Presentation](#)

- 7-3** Authorize the General Manager to execute a new license agreement with the California Department of Fish and Wildlife for up to twenty-five years to allow for the storage of boats, law enforcement vehicles, and related equipment for the continuation of enforcement of state conservation and environmental laws, and fishery protection at Diamond Valley Lake, Lake Skinner, and surrounding lakes; the subject property is located in the County of Riverside, in the Winchester area, and is identified as the County of Riverside Assessor Parcel Number 465-190-078; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (FAAME) **[21-5996](#)**

Attachments: [07142026 FAAME 7-3 B-L](#)
[07142026 FAAME 7-3 presentation](#)

- 7-4** Authorize the General Manager to execute a one-year amendment to a funding agreement for support of the Colorado River Board of California, Six Agency Committee, and Colorado River Joint Powers Authority, and by a two-thirds vote, authorize payment of Metropolitan's share up to \$1,022,720 for fiscal year 2026/27; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (OWA) **[21-6006](#)**

Attachments: [07142026 OWA 7-4 B-L](#)
[07142026 OWA 7-4 Presentation](#)

**** END OF CONSENT CALENDAR ****

8. BOARD LETTERS ACTION

- 8-1** Award a \$16,525,536 contract to Wood Bros Inc. to construct a wetland on Webb Tract; and authorize a \$1,988,400 agreement with MBK Engineers to provide construction management services; an increase of \$864,000 to an existing agreement with Environmental Science Associates for a new not-to-exceed total of \$1,844,000 for environmental monitoring; an increase of \$260,000 to an existing agreement with GEI Consultants Inc. for a new not-to-exceed total of \$1,760,000 for technical support; an increase of \$145,000 to an existing agreement with HydroFocus Inc. for a new not-to-exceed total of \$600,000 for scientific monitoring; and an increase of \$100,000 to an existing agreement with J.A. Spezia Consulting for a new not-to-exceed total of \$300,000 for public outreach and tribal coordination; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (EOT) **[21-5986](#)**
- Attachments:** [07142026 EOT 8-1 B-L](#)
[07132026 EOT 8-1 Presentation](#)
- 8-2** Adopt resolution supporting the Association of California Water Agencies Vision for our Water Future initiative; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (LEG) **[21-5999](#)**
- Attachments:** [07142026 LEG 8-2 B-L](#)
[07132026 LEG 8-2 Presentation](#)
- 8-3** Express support for AB 1894 (Rubio—D, West Covina) Fish and Wildlife: invasive mussels: imported water; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (LEG) **[21-6000](#)**
- Attachments:** [07142026 LEG 8-3 B-L](#)
[07132026 LEG 8-3 Presentation](#)
- 8-4** Amend the Metropolitan Water District Administrative Code concerning review of matters for the naming of facilities, and amend the criteria, policies and procedures for the naming of facilities; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (LEG) **[21-6022](#)**
- Attachments:** [07142026 LEG 8-4 B-L](#)
[07132026 LEG 8-4 Presentation](#)

- 8-5** By a two-thirds vote, authorize payments of up to \$4.16 million for participation in the State Water Contractors for fiscal year 2026/27 and up to \$4.25 million for fiscal year 2027/28; the General Manager has determined the proposed action is exempt or otherwise not subject to CEQA (OWA) **21-6005**

Attachments: [07142026 OWA 8-5 B-L](#)
[07132026 OWA 8-5 Presentation](#)

- 8-6** Authorize the General Manager to enter into (1) an agreement with the U.S. Bureau of Reclamation to add water to Lake Mead conserved under Metropolitan's existing Intentionally Created Surplus Exhibits pursuant to Reclamation's Lower Colorado River Basin System Conservation and Efficiency Program, (2) agreements with Reclamation, the Quechan Tribe of the Fort Yuma Indian Reservation, and Bard Water District for system conservation projects under Reclamation's Lower Colorado River Basin System Conservation and Efficiency Program, and (3) related forbearance and implementing agreements; the General Manager has determined the proposed action is exempt or otherwise not subject to CEQA. [SUBJECT REVISED on 7/6/2026] (OWA) **21-6035**

Attachments: [07142026 OWA 8-6 B-L](#)
[07132026 OWA 8-6 Presentation](#)

- 8-7** Approve the Metropolitan Water District of Southern California's salary schedules pursuant to CalPERS regulations; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA (OPE) **21-6036**

Attachments: [07142026 OPE 8-7 B-L](#)
[07142026 OPE 8-7 Presentation](#)

- 8-8** Review and approve the Department Head Operations Plan; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA **21-5938**

Attachments: [07142026 BOD 8-8 Department Head Operations Plan](#)

9. BOARD INFORMATION ITEMS

- 9-1** Report on Assembly Bill 1881 (Ramos, D – Highland): California Indian Freedom Act of 2026 (May 19, 2026); Assembly Bill 2218 (Kalra, D – San Jose): Water policy: California Native American tribes (April 16, 2026); and Senate Bill 1326 (Wahab, D – Hayward): California Environmental Quality Act: tribal cultural resources: mitigation measures (June 11, 2026) (LEG) [21-6039](#)

Attachments: [07142026 LEG 9-1 B-L](#)
[07142026 LEG 9-1 Presentation](#)

- 9-2** Diversity, Equity, and Inclusion activities [21-6019](#)

Attachments: [07142026 BOD 9-2 Report](#)

- 9-3** Equal Employment Opportunities activities [21-6020](#)

Attachments: [07142026 BOD 9-3 Report](#)

10. OTHER MATTERS—INFORMATION

- 10-1** Discuss department head performance [Public employee performance evaluation—Ethics Officer, General Auditor, General Counsel, and General Manager; to be heard in closed session pursuant to Government Code Section 54957] [21-6017](#)

- 10-2** Conference with Labor Negotiators; agency designated representatives: Chair of the Board Ortega, Chair and Vice Chair of Legal and Claims Committee Kassakhian and Shepherd Romey and Vice Chair Sutley, Chair and Vice Chair of Organization, Personnel, and Effectiveness Committee Katz and Bryant, Chair and Vice Chair of Audit Committee Ramos and Crane, Chair and Vice Chair of Ethics Committee Seckel and Cordero; Unrepresented employee(s): Ethics Officer, General Auditor, General Counsel, General Manager; to be heard in closed session pursuant to Gov. Code Section 54957.6 [21-6018](#)

11. OTHER MATTER—ACTION

- 10-3** Approve compensation increase for the Ethics Officer, General Auditor, General Counsel, and General Manager; the General Manager has determined that the proposed actions are exempt or otherwise not subject to CEQA. [SUBJECT ADDED on 6/26/2026] [21-6047](#)

12. FOLLOW-UP ITEMS

NONE

13. FUTURE AGENDA ITEMS

14. ADJOURNMENT

NOTE: Each agenda item with a committee designation will be considered and a recommendation may be made by one or more committees prior to consideration and final action by the full Board of Directors. The committee designation appears in parenthesis at the end of the description of the agenda item, e.g. (EOT). Board agendas may be obtained on Metropolitan's Web site <https://mwdh2o.legistar.com/Calendar.aspx>

Writings relating to open session agenda items distributed to Directors less than 72 hours prior to a regular meeting are available for public inspection at Metropolitan's Headquarters Building and on Metropolitan's Web site <https://mwdh2o.legistar.com/Calendar.aspx>.

Requests for a disability-related modification or accommodation, including auxiliary aids or services, in order to attend or participate in a meeting should be made to the Board Executive Secretary in advance of the meeting to ensure availability of the requested service or accommodation.

Las Virgenes Municipal Water District

Customer Service Update
July 7, 2026



Las Virgenes Municipal Water District
www.LVMWD.com

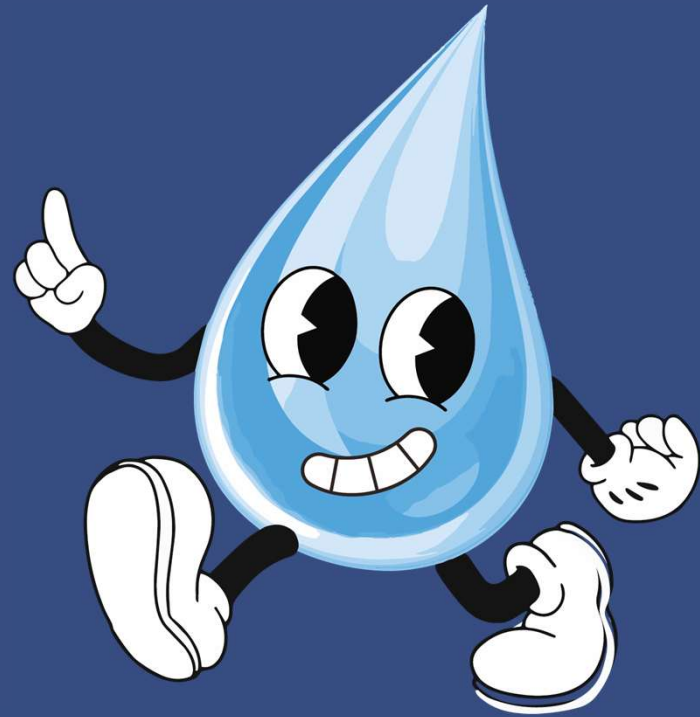
Customer Outreach Activities

Spot the Drop

- Truck Magnets
- Little Drop or Little Drop Plushie
- Swag Buckets

Customer Report Cards

- Mailing in July



Las Virgenes Municipal Water District
www.LVMWD.com

Imagine H2O Tech Adopter

- Imagine H2O is a global non-profit organization and water innovation accelerator.
- Tech adopter network allows the District access to early-stage water technology and to collaborate on innovation.
- No additional costs to the District and could qualify for potential funding from Imagine H2O for certain projects.

- OceanWell and Watersmart were part of the Imagine H2O program.
- Metropolitan Water District, East Bay Municipal Water District, Moulton Niguel Water District, and Marin Municipal Water District are early tech-adopters.



Billing Software Upgrade

- Anticipated Implementation: August
- Better security, current version from 2018
- Enhancements:
 - See payment arrangements on bills
 - Will be able to implement bill enhancements (colors, graphs, and QR code)



Customer Metrics at a Glance

LVMWD has
the BEST
customer
service team!



- 10,185 Calls
- 5,006 Emails
- 2,614 Service Orders
- 9,434 Leak Notifications sent
- 929 Second Excessive Use Notifications sent
- 305 Final Excessive Use Notifications sent
- 25 Flow Restrictors/Disconnects



Las Virgenes Municipal Water District
www.LVMWD.com

Coming Soon

- LVMWD will transition to a hybrid submitter billing system with InvoiceCloud.
- Customers will be responsible for paying fees associated with using a credit card.
- Based on current activity, this change will result in a savings of around \$231,540 a year for the District.
- Customers will still have the option to pay via cash, ach, or check as a no cost alternative.





DATE: July 21, 2026
TO: Board of Directors
FROM: General Manager

SUBJECT: ACWA Region 8 Board of Directors: Nomination and Support

SUMMARY:

On June 29, 2026, the District received notification from the ACWA Region 8 Nominating Committee requesting nominations for candidates interested in serving on the Region 8 Board of Directors for the remainder of the 2026-27 term. Nominations require submittal of a Region 8 Board Candidate Nomination Form signed by the candidate and a Board-adopted resolution supporting the candidate's nomination to ACWA by July 29, 2026.

RECOMMENDATION(S):

Pass, approve, and adopt proposed Resolution No. 2676, nominating and supporting Director (to be determined) as a candidate for the ACWA Region 8 Board of Directors.

RESOLUTION NO. 2676

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT PLACING IN NOMINATION DIRECTOR (TO BE DETERMINED) AS A MEMBER OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES REGION 8 BOARD OF DIRECTORS

(Reference is hereby made to Resolution No. 2676 on file in the District's Resolution Book and by this reference the same is incorporated herein.)

FINANCIAL IMPACT:

There is a minimal financial impact associated with this action.

DISCUSSION:

Board President Andy Coradeschi and Director Len Polan have indicated a desire to serve on the ACWA Region 8 Board of Directors.

Prepared by: Nancy Lawrence, Executive Assistant/Clerk of the Board

ATTACHMENTS:

ACWA Region 8 Call for Candidates

ACWA Region 8 Nomination Form

Proposed Resolution No. 2676

MEMORANDUM

Date: June 29, 2026

To: Region 8 Member Agency Presidents and General Managers
(sent via e-mail)

From: ACWA Region 8 Board

The Region 8 Board is looking for ACWA members who are interested in leading the direction of ACWA Region 8 for the remainder of the 2026-2027 term. The Board is seeking candidates from Region 8 to fill one board vacancy.

The leadership of ACWA's ten geographical regions is integral to the leadership of the Association as a whole. The Chair and Vice Chair of Region 8 serve on ACWA's Statewide Board of Directors and recommend all committee appointments for Region 8. The members of the Region 8 Board determine the direction and focus of region issues and activities. Additionally, they support the fulfillment of ACWA's goals on behalf of members.

If you, or someone within your agency, are interested in serving in a leadership role within ACWA by becoming a Region 8 Board Member, please familiarize yourself with the Role of the Regions and Responsibilities [HERE](#); and the Region 8 Rules and Regulations [HERE](#) and complete the following steps:

- **Complete the Nomination Form [HERE](#)**
- **Obtain a Resolution of support from your agency's Board of Directors (sample resolution [HERE](#))**
- **Submit the requested nomination form to ACWA by 5:00 p.m. on July 29, 2026**

The Region 8 Board will make their appointment shortly thereafter and will inform the region of the results.

If you have any questions, please contact ACWA Senior Regional Affairs Representative Michael Cervantes at michaelc@acwa.com, or call (916) 441-4545.

REGION BOARD VACANCY CANDIDATE NOMINATION



Submit completed form to regionelections@acwa.com

Name of Candidate:	Title:	
Agency:	Agency Phone:	
Direct Phone:	E-mail:	
Address:	ACWA Region:	County:

Agency Function(s) <i>Check all that apply</i>	
Ag Water Supply	Urban Water Supply
Flood Control	Wastewater Reclamation
Groundwater Management / Replenishment	Wholesale
Retailer	Other:
Sewage Treatment	

Describe your ACWA-related activities that help qualify you for this office:

Write below or attach a half-page bio summarizing the experience and qualifications that make you a viable candidate for ACWA Region leadership. Please include the number of years you have served in your current agency position, the number of years you have been involved in water issues and in what capacity you have been involved in the water community. You may share a candidate photo along with your application. Candidate photos and bios will be shared on the ACWA region election webpage.

I acknowledge that the role of a region board member is to actively participate on the Region Board during my term, including attending region board and membership meetings, participating in region conference calls, participating in ACWA's Outreach Program, as well as other ACWA functions to set an example of commitment to the region and the association.

I hereby submit my name for consideration by the Nominating Committee.

_____ Signature	_____ Title	_____ Date
--------------------	----------------	---------------

RESOLUTION NO. _____

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE
(DISTRICT NAME)
PLACING IN NOMINATION (NOMINEE NAME)
AS A MEMBER OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES
REGION ____ (POSITION)**

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF (DISTRICT NAME) AS FOLLOWS:

A. Recitals

(i) The Board of Directors (Board) of the (District Name) does encourage and support the participation of its members in the affairs of the Association of California Water Agencies (ACWA).

(ii) (Nominee Title), (Nominee Name) is currently serving as (Position) for ACWA Region ____

and/or

(iii) (Nominee Name) has indicated a desire to serve as a (Position) of ACWA Region ____.

B. Resolves

NOW, THEREFORE, BE IT RESOLVED THAT THE BOARD OF DIRECTORS OF (DISTRICT NAME),

(i) Does place its full and unreserved support in the nomination of (Nominee Name) for the (Position) of ACWA Region ____.

(ii) Does hereby determine that the expenses attendant with the service of (Nominee Name) in ACWA Region ____ shall be borne by the (District Name).

Adopted and approved this ____ day of ____ (month) 2026.

(SEAL)

(Nominee Name), (Title)
(District Name)

January 5, 2026

ATTEST:

(Secretary Name), Secretary

I, (SECRETARY NAME), Secretary to the Board of Directors of (District Name), hereby certify that the foregoing Resolution was introduced at a regular meeting of the Board of Directors of said District, held on the ____ day of ____ (month) 2026, and was adopted at that meeting by the following roll call vote:

AYES:

NOES:

ABSENT:

ATTEST:

(Secretary Name), Secretary to the
Board of Directors of
(District Name)

January 5, 2026

ACWA Region 8 Rules & Regulations

Each region shall organize and adopt rules and regulations for the conduct of its meetings and affairs not inconsistent with the Articles of Incorporation or bylaws of the Association (ACWA Bylaw V, 6.).

Officers

At least one of the chair or vice chair positions must be an elected / appointed director from a member agency.

The term of the Chair and the Vice Chair shall allow for two successive two-year terms, allowing a maximum of four consecutive years as Chair or Vice Chair. The Nominating Committee may, at its discretion, recommend candidates for additional consecutive service when it determines such recommendation is in the best interest of the Region.

The chair will appoint a secretary if one is deemed necessary.

Meetings

The Region 8 board shall approve all region programs and activities.

Region 8 shall have a general membership meeting annually in addition to those meetings at the ACWA conferences.

Attendance

If a region chair or vice chair is no longer allowed to serve on the Board of Directors due to his / her attendance, the region board shall appoint from the existing region board a new region officer. (ACWA Policy & Guideline Q, 1.)

If a region chair or vice chair misses three consecutive region board / membership meetings, the same process shall be used to backfill the region officer position. (ACWA Policy & Guideline Q, 1.)

If a region board member has three consecutive unexcused absences from a region board meeting or general membership business meeting, the region board will convene to discuss options for removal of the inactive board member. If the vacancy causes the board to fail to meet the minimum requirement of five board members, the region must fill the vacancy according to its rules and regulations. (ACWA Policy & Guideline Q, 3.)

Elections

All nominations received for the region chair, vice chair and board positions must be accompanied by a resolution of support from each sponsoring member agency, signed by an authorized representative of the Board of Directors. Only one individual may be nominated from a given agency to run for election to a region board. Agencies with representatives serving on the nominating committees should strive not to submit nominations for the region board from their agency. (ACWA Policy & Guideline P, 2.)

Election ballots will be e-mailed to ACWA member agency general managers and presidents.

The nominating committee shall consist of three to five members.

The nominating committee shall pursue qualified members within the region to run for the region board; consider geographic diversity, agency size and focus in selecting a slate, nominate both elected/appointed officials and staff members as part of the Region 8 board; and preserve objectivity by not nominating a member of the nominating committee for any elected positions being considered.

See the current region election timeline for specific dates.

Endorsements

ACWA, as a statewide organization, may endorse potential nominees and nominees for appointment to local, regional, and statewide commissions and boards. ACWA's regions may submit a recommendation for consideration and action to the ACWA Board of Directors to endorse a potential nominee or nominee for appointment to a local, regional or statewide commission or board. (ACWA Policy & Guideline P, 3.)

Committee Recommendations & Representation

All regions are given equal opportunity to recommend representatives of the region for appointment to a standing or regular committee of the Association. If a region fails to provide full representation on all ACWA committees, those committee slots will be left open for the remainder of the term or until such time as the region designates a representative to complete the remainder of the term. (ACWA Policy & Guideline P, 4. A.)

At the first region board / membership meeting of the term, regions shall designate a representative serving on each of the standing and regular committees to serve as the official reporter to and from the committee on behalf of the region to facilitate input and communication. (ACWA Policy & Guideline P, 4. B.)

The chair and vice chair shall make all committee appointment recommendations to the ACWA committees, to be ratified by the Region 8 board prior to submission to the ACWA president for consideration.

Tours

ACWA may develop and conduct various tours for the regions. All tour attendees must sign a "release and waiver" to attend any and all region tours. Attendees agree to follow environmental guidelines and regulations in accordance with direction from ACWA staff; and will respect the rights and privacy of other attendees. (ACWA Policy & Guideline P, 6.)

Finances

See "Financial Guidelines for ACWA Region Events" document.

Amending the Region Rules & Regulations

ACWA policies and guidelines can be amended by approval of the ACWA Board of Directors.

The Region 8 Rules & Regulations can be amended by a majority vote of those present at any Region 8 meeting as long as a quorum is present.

Region 8 Board 2026 - 2027 Term

Chair

Anthony R. Fellow, Ph.D.
Upper San Gabriel Valley Municipal Water District
602 E. Huntington Drive, Suite B
Monrovia, CA 91016
Phone: (626) 443-2297
Cell: (626) 773-2405
Email: anthonyfellow@gmail.com

Vice Chair

Scott Quady
Calleguas Municipal Water District
2100 Olsen Road
Thousand Oaks, CA 91360
Phone: (805) 796-9395
Cell: (805) 300-3661
Email: squady@calleguas.com
CC Email: kwade@calleguas.com

Board Members

Bill Cooper
Santa Clarita Valley Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350
Phone: (661) 297-1600
Cell: (661) 645-6772
Email: wcooper@scvwa.org

Chisom Obegolu
City of Glendale Water & Power
141 N. Glendale Ave.
Glendale, CA 91206
Phone: (818) 551-3023
Email: cobegolu@glendale.gov

Robert W. Lewis
Rowland Water District
3021 Fullerton Road
Rowland Heights, CA 91748
Phone: (562) 697-1726
Cell: (562) 697-1726
Email: rlewis@rwd.org

Richard Wilson
Burbank Water & Power
164 W. Magnolia Blvd.
Burbank, CA 91502
Phone: (818) 238-3700
Email: rwilson@burbankca.gov

ACWA Regions provide the grassroots support to advance ACWA's legislative and regulatory agenda.

Background

As a result of ACWA's 1993 strategic planning process, known as Vision 2000, ACWA modified its governance structure from one that was based on sections to a regional-based configuration. Ten regions were established to provide geographic balance and to group agencies with similar interests.

Primary Charge of Regions

- To provide a structure where agencies can come together and discuss / resolve issues of mutual concern and interest and based on that interaction, provide representative input to the ACWA board.
- To assist the Outreach Task Force in building local grassroots support for the ACWA Outreach Program in order to advance ACWA's legislative and regulatory priorities as determined by the ACWA Board and the State Legislative, Federal Affairs or other policy committees.
- To provide a forum to educate region members on ACWA's priorities and issues of local and statewide concern.
- To assist staff with association membership recruitment at the regional level.
- To recommend specific actions to the ACWA Board on local, regional, state and federal issues as well as to recommend endorsement for various government offices and positions.

Region chairs and vice chairs, with support from their region boards, provide the regional leadership to fulfill this charge.

Note: Individual region boards CANNOT take positions, action or disseminate communication on issues and endorsements without going through the ACWA Board structure.

GENERAL DUTIES / RESPONSIBILITIES FOR REGION OFFICERS

Region Chair

- Serves as a member of the ACWA Board of Directors at bimonthly meetings at such times and places as the Board may determine. The Chair will also call at least two Region membership meetings to be held at each of the ACWA Conferences and periodic Region Board meetings.
- Serves as a member of ACWA's Outreach Program, and encourages region involvement. Appoints Outreach Captain to help lead outreach effort within the region.
- Presides over all region activities and ensures that such activities promote and support accomplishment of ACWA's Goals.
- Makes joint recommendations to the ACWA President regarding regional appointments to all ACWA committees.
- Appoints representatives in concurrence of the region board, to serve on the region's nominating committee with the approval of the region board.
- Facilitates communication from the region board and the region membership to the ACWA board and staff.

Region Vice Chair

- Serves as a member of the ACWA Board of Directors at bimonthly meetings at such times and places as the Board may determine. The Vice Chair will also participate in at least two Region membership meetings to be held at each of the ACWA Conferences and periodic Region Board meetings.
- Performs duties of the Region Chair in the absence of the chair.
- Serves as a member of ACWA's Outreach Program, and encourages region involvement.
- Makes joint recommendations to the ACWA president regarding regional appointments to all ACWA committees.

Region Board Member

- Participate in at least two Region membership meetings to be held at each of the ACWA Conferences and periodic Region Board meetings.
- Supports program planning and activities for the region.
- Actively participates and encourages region involvement in ACWA's Outreach Program.
- May serve as alternate for the chair and/or vice chair in their absence (if appointed) to represent the region to the ACWA Board.

REGION MAP



ACWA Public Water Agency Members by County

Alameda Alameda County Water District City of Pleasanton Dublin San Ramon Services District East Bay Municipal Utility District Zone 7 Water Agency	City of Tehachapi Delano-Earlmart ID Groundwater Sustainability Delano-Earlmart Irrigation District Frazier Park Public Utilities District Golden Hills CSD Groundwater Banking JPA Indian Wells Valley Water District Kern County Water Agency Kern Delta Water District Kern Tulare Water District Lost Hills Water District Mojave PUD North Kern WSD Rand Communities WD Rosamond CSD Rosedale-Rio Bravo WSD Semitropic WSD Shafter-Wasco ID Southern San Joaquin MUD South Valley Water Resources Authority Tehachapi-Cummings County WD West Kern WD Westside Water Authority Wheeler Ridge-Maricopa WSD	Madera Water District Madera-Chowchilla Water and PA Marin Bolinas Community PUD Marin Municipal Water District North Marin Water District Stinson Beach County Water District Mariposa Mariposa Public Utilities District Mendocino Brooktrails Township CSD Calpella County Water District Laytonville County Water District Millview County Water District Redwood Valley County WD Willow County Water District Merced Central California Irrigation District Delhi County Water District Eastside Water District East Turlock Subbasin Groundwater Sustainability Agency Grassland Water District Henry Miller Rec. District #2131 Le Grand CSD Merced Integrated Regional Water Management Authority Merced Irrigation District Merced Irrigation-Urban GSA Planada CSD San Luis & Delta-Mendota WA San Luis Water District Mono June Lake PUD Mammoth Community WD Monterey Aromas Water District Castroville Community Services District Marina Coast Water District Monterey County Water Resources Agency Monterey One Water Monterey Peninsula Water Management District Pebble Beach Community Services District Napa Circle Oaks County Water District Nevada Nevada Irrigation District San Juan Ridge County WD Sierra Lakes County Water District Truckee Donner PUD Orange City of Newport Beach City of Santa Ana East Orange County Water District El Toro Water District Irvine Ranch Water District La Habra Heights County Water District Laguna Beach County Water District Mesa Water District Moulton Niguel Water District MWD of Orange County Orange County Water District Santa Margarita Water District Santiago Aqueduct Commission Serrano Water District South Coast Water District Trabuco Canyon Water District West Orange County Water Board Yorba Linda Water District Placer City of Lincoln City of Roseville Midway Heights County WD Placer County Water Agency San Juan Water District Tahoe City Public Utilities District Riverside Beaumont-Cherry Valley WD Benford-Coldwater Groundwater Sustainability Agency City of Corona Dept. of Water & Power Coachella Valley Water District Coachella Water Authority Desert Water Agency Eastern Municipal Water District Elsinore Valley MWD Idyllwild Water District Indio Water Authority Jurupa Community Services District Lake Hemet Municipal WD Mission Springs Water District Palo Verde Irrigation District Pinyon Pines County Water District Rancho California Water District	Riverside County Flood Control & Water Conservation District Riverside Public Utilities Salton Sea Authority San Geronio Pass Water Agency Santa Ana Watershed Project Authority Santa Rosa Regional Resources Authority Western Municipal Water District Sacramento American River Flood Control District Carmichael Water District Citrus Heights Water District City of Folsom City of Sacramento - Dept. of Utilities Delta Conveyance Design and Construction Authority Elk Grove Water District, Dept. of FRCD Fair Oaks Water District North Delta Water Agency Omochumne-Hartnell WD Reclamation District #744 Reclamation District #1000 Rio Linda/Elverta Community WD Sacramento County Water Agency Sacramento Suburban WD South Yuba Water District San Benito City of San Juan Bautista San Benito County Water District Sunnyslope County Water District San Bernardino Apple Valley Foothill County WD Apple Valley Heights County WD Bear Valley Basin Groundwater Sustainability Agency Big Bear City Community Services District Big Bear Municipal Water District Chino Basin Water Conservation District Chino Basin Watermaster City of Rialto/Rialto Utility Authority Crestline Village Water District Crestline-Lake Arrowhead WA Cucamonga Valley Water District East Valley Water District Hi-Desert Water District Inland Empire Utilities Agency Joshua Basin Water District Lake Arrowhead CSD Mariana Ranchos County WD Mojave Water Agency Monte Vista Water District San Bernardino Valley Municipal Water District San Bernardino Valley Water Conservation District Twentynine Palms Water District West Valley Water District San Diego Borrego Water District Carlsbad Municipal Water District City of Escondido City of Oceanside-Water Utilities Dept. City of San Diego Public Utilities Fallbrook Public Utility District Helix Water District Lakeside Water District Majestic Pines Community Services District Olivenhain Municipal Water District Otay Water District Padre Dam Municipal Water District Rainbow Municipal Water District Ramona Municipal Water District Rincon del Diablo Municipal Water District San Diego County Water Authority San Dieguito Water District Santa Fe Irrigation District South Bay Water Sweetwater Authority Upper San Luis Rey RCD Vallecitos Water District Valley Center Municipal Water District Vista Irrigation District Wynola Water District Yuma Municipal Water District San Francisco San Francisco Public Utility Commission	San Joaquin Banta-Carbona Irrigation District Central San Joaquin Water Conservation District North San Joaquin Water Conservation District Pescadero Reclamation District #2058 Reclamation District #2026 South San Joaquin Irrigation District Stockton East Water District The West Side Irrigation District Woodbridge Irrigation District San Mateo Bay Area Water Supply & Conservation Agency Coastside County Water District Mid-Peninsula Water District Montara Water & Sanitary District North Coast County Water District San Francisco Creek Joint Powers Authority San Mateo Flood and Sea Level Rise Resiliency District Westborough Water District Santa Barbara Cachuma Operation and Maintenance Board Carpinteria Valley Water District Central Coast Water Authority City of Buellton City of Santa Barbara Goleta Water District Los Alamos Community Services District Mission Hills Community Services District Montecito Sanitation District Montecito Water District Santa Ynez River Water Conservation District Improvement District No. 1 Vandenberg Village Community Services District Santa Clara Purissima Hills Water District Valley Water Santa Cruz Central Water District City of Santa Cruz Water Dept. Pajaro Valley Water Management Agency Pajaro/Sunny Mesa Community Services District Scotts Valley Water District Soquel Creek Water District Shasta Bella Vista Water District Centerville Community Services District City of Redding Water Utility Clear Creek Community Services District Cottonwood Water District Fall River Valley Community Services District Mountain Gate Community Services District Rio Alto Water District Shasta County Water Agency Sierra Sierra County WWD #1 Siskiyou Montague Water Conservation District Scott Valley Irrigation District Tulelake Irrigation District Solano City of Benicia City of Fairfield City of Vacaville, Utilities Department City of Vallejo Maine Prairie Water District Reclamation District #2068 Rural North Vacaville Water District Solano County Water Agency Solano Irrigation District Suisun-Solano Water Authority Sonoma Bodega Bay PUD City of Petaluma City of Santa Rosa - Water Dept. Forestville Water District Sonoma Mountain County WD Sonoma Water Valley of the Moon Water District Stanislaus	City of Modesto, Utilities Department Del Puerto Water District Lake Don Pedro Community Services District Modesto Irrigation District Oakdale Irrigation District Patterson Irrigation District Stanislaus Regional Water Authority Turlock Irrigation District West Stanislaus Irrigation District Sutter Brophy Water District Feather Water District Reclamation District #1500 South Sutter Water District Sutter Extension Water District Tehama Corning Water District Trinity Weaverville Community Services District Tulare Alpaugh Community Services District Alpaugh Irrigation District Alta Irrigation District Exeter Irrigation District Friant Power Authority Friant Water Authority Ivanhoe Irrigation District Ivanhoe Public Utilities District Kaweah Delta Water Conservation District Kings River East Groundwater Sustainability Agency Kings River Water District Lindsay-Strathmore Irrigation District Lower Tule River Irrigation District Lower Tule River Irrigation District GSA Mid-Kaweah Groundwater Sustainability Agency Orosi Public Utilities District Pixley Irrigation District Pixley Irrigation District GSA Porterville Irrigation District Saucelito Irrigation District South Valley Water Association South Valley Water Banking Authority St. Johns Water District Stone Corral Irrigation District Terra Bella Irrigation District Tri-Districts Water Authority Tri-Valley Water District Tulare Irrigation District Tuolumne Tri-Dam Project Tuolumne County Water Agency Tuolumne Utilities District Ventura Arroyo Santa Rosa GSA Calleguas Municipal Water District Camrosa Water District Casitas Municipal Water District Channel Islands Beach Community Services District City of Camarillo County of Ventura Public Works Pleasant Valley County Water District Triunfo Water & Sanitation District United Water Conservation District Ventura County, Public Works Ventura River Water District Ventura Water, City of Ventura Yolo Dunnigan Water District Reclamation District #2035 Reclamation District #307 Reclamation District #999 Woodland Davis Clean Water Agency Yolo County Flood Control and Water Conservation District Yuba Browns Valley Irrigation District Camp Far West Irrigation District City of Yuba City North Yuba Water District Ramirez Water District Reclamation District 784 Yuba County Water Agency
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REGION BOARD VACANCY CANDIDATE NOMINATION



Submit completed form to regionelections@acwa.com

Name of Candidate:	Title:	
Agency:	Agency Phone:	
Direct Phone:	E-mail:	
Address:	ACWA Region:	County:

Agency Function(s) <i>Check all that apply</i>	
☐ Ag Water Supply	☐ Urban Water Supply
☐ Flood Control	☐ Wastewater Reclamation
☐ Groundwater Management / Replenishment	☐ Wholesale
☐ Retailer	☐ Other:
☐ Sewage Treatment	

Describe your ACWA-related activities that help qualify you for this office:

--

Write below or attach a half-page bio summarizing the experience and qualifications that make you a viable candidate for ACWA Region leadership. Please include the number of years you have served in your current agency position, the number of years you have been involved in water issues and in what capacity you have been involved in the water community. You may share a candidate photo along with your application. Candidate photos and bios will be shared on the ACWA region election webpage.

--

I acknowledge that the role of a region board member is to actively participate on the Region Board during my term, including attending region board and membership meetings, participating in region conference calls, participating in ACWA's Outreach Program, as well as other ACWA functions to set an example of commitment to the region and the association.

I hereby submit my name for consideration by the Nominating Committee.

_____ Signature	_____ Title	_____ Date
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RESOLUTION NO. 2676

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT PLACING IN NOMINATION DIRECTOR _____ AS A MEMBER OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES REGION 8 BOARD OF DIRECTORS

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT as follows:

Section 1. Recitals

- (i) The Board of Directors (Board) of the Las Virgenes Municipal Water District does encourage and support the participation of its members in the affairs of the Association of California Water Agencies (ACWA).
- (ii) Director _____ has indicated a desire to serve as a Board Member of ACWA Region 8.

Section 2. Resolves

NOW, THEREFORE, BE IT RESOLVED THAT THE BOARD OF DIRECTORS OF THE LAS VIRGENES MUNICIPAL WATER DISTRICT,

- (i) Does place its full and unreserved support in the nomination of _____ for the position of Board Member of ACWA Region 8.
- (ii) Does hereby determine that the expenses attendant with the service of _____ in ACWA Region 8 shall be borne by Las Virgenes Municipal Water District.

PASSED, APPROVED, AND ADOPTED this 21st day of July 2026.

Andy Coradeschi, President

ATTEST:

Gary Burns, Secretary

(Seal)

APPROVED AS TO FORM:

W. Keith Lemieux, District Counsel



DATE: July 21, 2026
TO: Board of Directors
FROM: General Manager

SUBJECT: Water Supply Reliability and Diversification Study

SUMMARY:

The Water Supply Reliability and Diversification Study is presented to the Board to provide a comprehensive evaluation of strategies to enhance the District's water supply reliability through diversification of its supply portfolio. The purpose of the project is to identify and assess feasible alternatives that will reduce the District's reliance on imported water, particularly from the State Water Project, and to develop a resilient, cost-effective, and environmentally responsible water supply plan that can withstand droughts, climate variability, and other potential disruptions. The study has been developed through a collaborative process involving multiple stakeholder workshops, technical evaluations, and scenario analyses, and is intended to inform Board decision-making regarding future investments and water supply management policy.

At this stage in the process, the Board is being asked to review the findings of the study, consider the recommended actions for near-, mid-, and long-term implementation, and provide direction on the preferred portfolio of supply alternatives to pursue further, including potential agreements, partnerships, and capital projects necessary to achieve the District's reliability and diversification objectives. The Board's consideration will guide the prioritization of projects and allocation of resources to ensure a sustainable and reliable water future for the District's service area.

RECOMMENDATION(S):

Receive and file the Water Supply Reliability and Diversification Study.

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

There is no financial impact associated with receiving and filing the Water Supply Reliability and Diversification Study. The professional services agreement for the Study was previously

authorized by the Board and awarded to Kennedy/Jenks Consultants, Inc., in the amount of \$499,871. No additional appropriation is required.

The Study's implementation phase will require future capital investments and operational expenditures for projects such as groundwater banking, advanced water purification, and potential desalination, with individual project costs and funding sources — including potential grants and interagency partnerships — to be determined as each project advances through planning and Board approval of future budgets.

DISCUSSION:

The Water Supply Reliability and Diversification Study represents a significant evolution in the District's approach to long-term water resource planning, building on both regional and local lessons learned from recent droughts and supply interruptions. The impetus for this study arose from the District's acute vulnerability as a State Water Project (SWP)-dependent agency with nearly all potable water imported through the Metropolitan Water District of Southern California (Metropolitan). This dependency was underscored during the 2021 to 2023 drought when Metropolitan allocations to the District were reduced by 74%, prompting the Board to escalate its Water Shortage Contingency Plan and intensify efforts to identify alternative supplies and reduce reliance on a single imported source. The Board's strategic direction, as reaffirmed in recent planning workshops, has consistently emphasized the need for redundancy, diversification, and resilience in the face of climate variability, regulatory constraints, and seismic risks.

In response, the District initiated a comprehensive, multi-phase study process beginning with the selection of Kennedy/Jenks Consultants, Inc., through a competitive procurement in 2024. The consultant was tasked with developing a robust analytical framework, including scenario planning, cost-benefit analysis, and stakeholder-driven evaluation criteria, to ensure that all feasible supply alternatives were rigorously vetted. The study's methodology was structured around a series of discrete tasks: data collection and review, demand and supply forecasting, identification and screening of supply concepts, project ranking, and portfolio development. Each phase was informed by extensive stakeholder engagement, including four formal workshops, one-on-one interviews with key regional partners, and iterative feedback from Board President Andy Coradeschi and Vice President Jay Lewitt. This collaborative approach ensured that the evaluation criteria — such as drought resilience, operational flexibility, cost impacts, local supply benefits, and adaptability — reflected both technical realities and community priorities. A complete list of stakeholders is provided in the report.

Throughout the study, a wide array of supply alternatives was considered, ranging from near-term options such as distant groundwater banking partnerships (e.g., with Irvine Ranch Water District and Silvertip Water Reliability Program) to mid- and long-term strategies including local groundwater banking in Ventura County, participation in regional brackish water treatment projects, and advanced desalination technologies (e.g., OceanWell). Each alternative was assessed for technical feasibility, institutional complexity, regulatory requirements, infrastructure needs, and cost-effectiveness. Notably, the study recognized the institutional and technical challenges associated with local groundwater banking and brackish water treatment, including the need for new policy frameworks and multi-agency agreements, as well as the long lead times for implementation.

The study's scenario-based portfolio analysis enabled the District to compare the performance

of various supply mixes under normal, drought, and emergency conditions through 2065 (40-year planning horizon). This approach highlighted the importance of adaptive management, allowing for periodic reassessment of supply reliability, cost trends, and regulatory developments. The study also identified key future milestones, including the completion of the Pure Water Project Las Virgenes-Triunfo by 2030, anticipated policy developments in regional groundwater management, and the phased evaluation of desalination and other emerging technologies. Ongoing participation in regional initiatives, such as the Water Resources Implementation Strategy (WRIST) and interagency integration studies, remains critical to maintaining flexibility and leveraging external funding opportunities.

One of the main objectives of the Study was to determine potential bill impacts to customers associated with introducing alternative water supply sources. In the near-term (2030), bill impacts associated with purchasing water as part of a groundwater banking program were deemed to be reasonable – estimated at an additional \$19 per month per average residential household compared to the “status quo” – if the District did not pursue additional groundwater banking. In the mid-term (2045), bill impacts were determined to be negligible (e.g. an increase of about \$1 per month). In the long term (2065), bill impacts were determined to be even more favorable with essentially no difference in cost for the average residential household water bill compared to the status quo. This decrease is attributed to relying less on costly imported Metropolitan Water District supplies in future years compared to increasingly more affordable local supply sources such as purified recycled water. These estimates are subject to change as new information becomes available in the coming years.

In summary, the Water Supply Reliability and Diversification Study marks a transition from reactive drought response to proactive, portfolio-based planning. By systematically evaluating a broad spectrum of alternatives and engaging stakeholders at every stage, the District has established a transparent, evidence-based foundation for future investments and policy decisions. The next steps will involve continued monitoring of supply performance, regulatory changes, and partnership opportunities, with regular updates to the Board to ensure that the District’s water supply strategy remains resilient, cost-effective, and aligned with community values.

GOALS:

Provide Safe and Quality Water with Reliable Services

Prepared by: Joe McDermott, PE, Assistant General Manager

ATTACHMENTS:

[Water Supply Diversification Study.pdf](#)



Las Virgenes Municipal Water District

Water Supply Reliability and Diversification Study

Board Draft

Water Supply Reliability and Diversification Study

BOARD DRAFT

15 July 2026

Prepared for

Las Virgenes Municipal Water District

4232 Las Virgenes Road
Calabasas, CA 9130

KJ Project No. 000000

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A Stakeholder Materials

List of Acronyms

AF	acre foot
AFY	acre-feet per year
AWPF	Advanced Water Purification Facility
CAMP4W	Metropolitan Water District's Climate Action Management Plan for Water
CFS	cubic foot per second
CII	commercial, industrial, and institutional water customers
District	Las Virgenes Municipal Water District
DWR	Department of Water Resources
FCGMA	Fox Canyon Groundwater Management Agency
ILSEP	Interagency Local Supply Exchange Program
JPA	Joint Powers Authority
LADWP	Los Angeles Department of Water and Power
LVMWD	Las Virgenes Municipal Water District
Metropolitan	Metropolitan Water District of Southern California
MGD	million gallons per day
NPV	Net Present Value
PCCP	prestressed concrete cylinder pipe
PWP	Las Virgenes–Triunfo Pure Water Project
RHNA	Regional Housing Needs Assessment
ROC	reverse osmosis concentrate
SCAG	Southern California Association of Governments
SWP	State Water Project
SWRCB	State Water Resources Control Board
SWRU	Semitropic Stored Water Recovery Unit
TAF	thousand acre feet
TMDLs	Total maximum daily load water quality regulation
TWRF	Tapia Water Reclamation Facility
United	United Water Conservation District
WER	Water Cost-to-Expense Ratio
WF1	Water Farm 1
WRF	Water Reclamation Facility
WRIST	Water Resources Implementation Strategy
WSRDS	Water Supply Reliability and Diversification Study

Section 0: Executive Summary

The **Water Supply Reliability and Diversification Study** (WSRDS) was conducted for the Las Virgenes Municipal Water District (LVMWD) to identify strategies that enhance water supply reliability by diversifying its water supply portfolio. This stakeholder driven study evaluates alternative water sources, ranks feasible concepts, and recommends actions for near-, mid-, and long- term implementation purposes and objectives.

LVMWD serves approximately 70,000 residents in western Los Angeles County and relies on the Metropolitan Water District of Southern California (Metropolitan) for nearly all its potable water. Despite having two main sources (Colorado River being one), and with limitations in Metropolitan's infrastructure, nearly all imported water delivered to LVMWD is from the State Water Project (SWP) and LVMWD is considered an "SWP dependent area". During the historic drought from 2021-2023, LVMWD's water delivery allocation from Metropolitan was reduced by a staggering 74 percent.

LVMWD customers have been doing a phenomenal job conserving and using water more efficiently in recent years. In 2024, LVMWD customers used 15,611 acre-feet (AF) of potable (drinking) water, down 22 percent compared to 2020 levels. They also used 3,465 AF of recycled water for irrigation purposes, down 27 percent compared to 2020 levels. One acre-foot of water is equivalent to a football field filled to a depth of one foot, 43,560 cubic feet or 326,000 gallons. While these reduction levels have been achieved through an aggressive conservation program, there are limited additional opportunities to further reduce water consumption. Further reductions in water use during a shortage event would require extreme conservation (e.g. one day per week watering for a maximum of 8 minutes as was the case during the last drought).

For LVMWD's service area, there are limited alternative sources of water supply. Groundwater basins have poor yield and quality and there are limited or no feasible surface water storage opportunities. LVMWD is in the process of building the Pure Water Project, which will take advantage of excess amounts of recycled water and urban runoff to supplement its drinking water supply. Ultimately, the Pure Water Project is anticipated to supply 3,500 acre-feet of water (LVMWD's share). However, SWP allocations are predicted to decline by 12 to 22 percent over the next 20 years and droughts could trigger even more severe allocation cuts in three of every 10 years. For this study, it's assumed that these cuts could be as much as 50 percent of normal water allocations from Metropolitan, but with some additional allowances after improvements are made to their system that would provide access to more Colorado River water and other regional storage such as Diamond Valley Lake. These factors make LVMWD especially vulnerable, therefore a more reliable supply of water is desired through a diversified portfolio of existing and new sources.

This study used a stakeholder process to identify, evaluate, and prioritize potential water supply concepts. Potential evaluation criteria were solicited during one-on-one meetings and then selected by a broader stakeholder group. Over the course of several workshops, Stakeholders selected the following seven criteria for evaluation purposes:

- Diversify Core Water Supplies
- Provide Drought Supply
- Operational Flexibility
- Adaptability

- Cost/Impact to Water Bills
- Local Supply
- Timeline for Implementation

Stakeholder Input

Stakeholders made it clear that it is their desire to have a reliable consistent supply and not be faced with on again off again extreme conservation.

0.1 Key Assumptions of the Evaluation

The study has in place a framework to ensure the various concepts are evaluated consistently. Elements of this framework include:

The Planning Period. The planning period for this study is present day to 2065. In this study near-term refers to the approximately 4-year period ending in 2030; mid-term refers to the approximately 20-year period that extends to 2045; and long-term refers to the approximately 40-year period ending in 2065.

Status Quo – concepts are evaluated against that Status Quo, or the business-as-usual condition. This would include the supplies that LVMWD has available through Metropolitan, banked groundwater supplies from the partnership with Irvine Ranch Water District (IRWD), and supplies LVMWD is actively developing, including the Pure Water Project. The Status Quo assumes that in a drought, Metropolitan supplies could be curtailed by as much as 50% of normal year supply. With implementation of some planned actions, such as the Sepulveda Pass Stage 1 and Sepulveda Pass Stage 2 projects Metropolitan allocation reductions during a drought could be less drastic. This key assumption should be reanalyzed after Metropolitan makes investment decisions in the coming years as part of its CAMP4W (Climate Action Management Plan for Water) project portfolio evaluation process so that a more accurate water shortage risk assessment can be performed.

The Status Quo also considers the anticipated demands of the LVMWD service area estimated for the planning period. For a given timeframe, the estimated demands are the same for all concepts and portfolios. A summary of the status quo supplies is provided in Figure ES-1.

Given the assumptions about Status Quo supplies and demands, approximately 4,000 AF of additional supply is needed in a drought year. This could be accomplished with the addition of desalination, participation in groundwater banking, participation in Calleguas' WRIST Program or other water exchange programs or a combination of two or more of these. In the near-term and likely through at least the year 2035, distant groundwater banking is the most viable option.

Drought Concern. Given LVMWD's demand profile and Metropolitan's imported supply reliability, this study as well as other studies by LVMWD do not anticipate shortages in a "normal" hydrologic year. While there is benefit to diversifying supplies for the purposes of resiliency and cost, history has shown that drought periods are a particular concern. Supply shortages in recent years could not be overcome with water efficiency but required LVMWD and its customers to undertake extreme conservation.

Curtailement of Imported Metropolitan Supplies. Metropolitan has been planning and has begun improvements that will improve reliability. The extent to which these improvements will be financed and ultimately implemented and the benefits to LVMWD are uncertain. This study has assumed that Metropolitan supplies could be curtailed by as much as 50% in a drought year. It further assumes that following the completion of the Sepulveda Pass Stage I improvements (see Sections 2.4.2), LVMWD could receive an additional estimated 750 AFY from Metropolitan under drought conditions. In addition, this study assumes that Sepulveda Pass Stage 2 improvements are completed by no later than 2045 (and preferably much sooner), providing an additional 2,000 AFY (2,750 AFY total) of available drought supply for LVMWD customers.

Because key assumptions could change, *this study is intended to be reviewed and updated on a regular basis.*

The analysis evaluates how future water supply portfolio costs may affect residential customer water bills and whether those impacts remain affordable within the Las Virgenes Municipal Water District (LVMWD) service area. The average residential customer currently uses approximately 23 hundred cubic feet (HCF) of water per month, with about 70% of demand attributed to outdoor irrigation. Under new State water-use efficiency standards and landscape transformation measures, that same customer could reasonably reduce demand to approximately 13 HCF per month. Modeling demonstrates that while increasing wholesale water supply costs will result in higher customer bills, water-use efficiency improvements can substantially offset those impacts. For example, a customer reducing consumption from 23 HCF to 15 HCF could limit future bill increases to a fraction of what would otherwise occur, even under significantly higher water supply costs.

This study concludes that the recommended long-term water supply portfolios can be considered affordable, particularly when viewed in the context of improved water reliability, drought resiliency, and protection against disruptions caused by climate change, earthquakes, and other emergencies. Using the Water Cost-to-Expense Ratio (WER) affordability metric, even the highest-cost portfolio scenarios remain below the recognized affordability threshold of 1.5% of expenses for a typical household. Nevertheless, the findings emphasize the importance of controlling future water costs wherever possible, as future infrastructure investments, operational expenses, and the needs of lower-income households could create additional affordability challenges beyond those associated solely with water supply costs.

0.2 1Concepts Evaluated

Five major concepts were analyzed:

1. **Rooftop Stormwater Capture.** This concept involves offering rebates to encourage widespread capture of stormwater from residential rooftops with storage in cisterns or rain barrels. Rooftop stormwater capture offsets the irrigation demand and could yield as much as 470 acre-feet a year. The concept could benefit both core water supplies and drought-year water supplies. Rooftop Stormwater Capture has a high cost, \$50,034 per AF.
2. **Groundwater Banking Outside of Region (“Distant Bank”).** Concept 2 looked at three groundwater banking projects in the Central Valley region (Concept 2a, 2b, and 2c). The

estimated costs of these groundwater banking projects ranged from a low of \$2,988 to \$3,941 per AF in the near-term and up to \$5,342 AF in the long-term (in 2024 present value costs, with costs escalating in later years). The distant banking projects would only benefit drought year water supplies. For context, LVMWD currently pays about \$1,550 per AF for treated water from Metropolitan.

3. Local Groundwater Banking in Ventura County. Concept 3 looked at groundwater banking in the Ventura County area using water from the City of Oxnard Advanced Water Treatment Plant. This concept is institutionally complex and could not provide meaningful supply for at least 13 years. Costs of this concept are \$2,728 per AF in the long-term (in 2024 present value).
4. Participation in the South Oxnard Plain Brackish Water Treatment Project. The intent of this project is to pump and treat seawater intrusion occurring in the local groundwater basin. The first phase of this project is currently at 60% design; it is unknown if the appropriate institutional framework will be in place to allow LVMWD to participate. This project has an anticipated cost of up to \$3,469 per AF in the long-term (in 2024 present value).
5. Seawater Desalination. A concept being studied separate from the WSRDS is seawater desalination using submerged reverse osmosis technology. The preliminary costs and yield of desalination used submerged technology such as OceanWell are included in the evaluation of potential portfolios. This project has an anticipated cost of up to \$4,150 per AF.

In addition to the five concepts analyzed, LVMWD staff used the opportunity created by the WSRDS to further coordinate with other local agencies and become informed of and engaged in planning of other regional supplies. Calleguas Municipal Water District (Calleguas), a neighboring agency to LVMWD and a Metropolitan member agency, has an existing pipeline interconnection with LVMWD. Recently Calleguas, in partnership with retail and regional partners, has developed a portfolio of projects aimed at enhancing supply reliability and resilience under projected normal and drought conditions, as well as during extended imported water outages. These efforts are part of their Water Resources Implementation Strategy (WRIST). LVMWD is also coordinating with the Los Angeles Department of Water and Power on actions that agency may be taking to manage local suppliers (such as groundwater) and opportunities to participate in those programs.

0.3 Development and Screening of Portfolios

Portfolios were developed by timeframe. This was necessary as many concepts will take multiple years to implement. For this reason there are different options in 2030 than in 2045 or 2065. Also, looking at portfolios allows a reasonable comparison against that status quo. It is an assumption of this study that the cost of Metropolitan supplies will increase faster than the rate of inflation and this affects the comparison with other supply options. Finally, developing portfolios by timeframe recognizes that the water supply reliability of the status quo supplies will change over time. We expect that Metropolitan supply will benefit from actions being undertaken by that agency. Likewise, the supply available from other status quo supplies, such as Pure Water will also increase.

In the near term LVMWD could continue with the status quo or add distant groundwater banking options. To avoid the need for extreme conservation during a drought under the Status Quo, approximately 4,000 AF would need to be made available in a drought year from a distant groundwater bank.

In the mid-term, LVMWD could continue with the status quo, add distant groundwater banking, participate in local groundwater banking, or pursue desalination. Supply options available by year 2045 were compared against the stakeholder criteria. This comparison showed that distant groundwater banking and desalination performed well when considering the stakeholder criteria. Because desalination alone was not enough to eliminate the need for extreme conservation during a drought, this report considers adding distant groundwater banking along with the desalination.

In the long-term, LVMWD could continue with the status quo, add distant groundwater banking, participate in local groundwater banking, pursue desalination, or participate in brackish water treatment with local delivery. Supply options available by year 2065 were compared against stakeholder criteria and again distant groundwater banking and desalination were ranked highly. Because desalination alone was not enough to eliminate the need for extreme conservation during a drought, this report considers adding distant groundwater banking along with desalination.

0.4 Findings and Recommendations

This study advocates an adaptive approach to the overall portfolio. The recommended near-term projects (by 2030) are available now and mitigate the immediate need to provide drought water supply – albeit, some amount of extreme conservation may still be required depending on the level of allocation reductions by Metropolitan. The best near-term option is groundwater banking outside of the region. This concept offers a cost-effective drought supply and can be implemented quickly. Near-term Scenarios are compared against the Status Quo in Figure ES-2. In Figure ES-2 the “Bill Impact” refers to the increase or decrease in cost from implementing distant groundwater banking, relative to the status quo, for the average customer in 2030, assuming that customer uses 23 HCF a month. What Figure ES-2 demonstrates is that participation in a groundwater banking program could help to alleviate the need for extreme conservation in a drought year.

In the mid-term (by 2045) it is recommended that LVMWD reassess groundwater banking performance and evaluate desalination viability. By the mid-term, framework for use of groundwater in the Ventura County area should be better understood and this may make it possible for LVMWD to take advantage of either Concept 3 or 4. Figure ES-3 shows potential water supply portfolios assuming LVMWD implements either groundwater banking or desalination or a combination of the two. Figure ES-3 illustrates that groundwater banking does not change the normal year supply portfolio but does eliminate the need to undertake extreme conservation during a drought. Desalination via OceanWell however has the potential to benefit normal supplies but may not fully compensate for curtailments in Metropolitan supplies and extreme conservation and/or participation in groundwater banking may still be beneficial in a drought. In Figure ES-3 the “Bill Impact” refers to the increase or decrease in cost from implementing distant banking or distant banking and desalination, relative to the status quo, for the average customer in 2045, assuming that customer uses 13 HCF a month

The recommendation for long-term (by 2065) actions are similar to the mid-term actions and include re-evaluating the reliability and cost of the status quo, evaluating the actual need for supplemental supplies, and identify where the outstanding concepts may improve the cost or reliability of the portfolio. Figure ES-4 illustrates that groundwater banking does not change the normal year supply portfolio but does eliminate the need to undertake extreme conservation during a drought. Like in the mid-term, in the long-term desalination however has the potential to benefit normal supplies but may not fully compensate for curtailments in Metropolitan supplies in a drought.

Figure ES-1. Status Quo Portfolios (Potable Supplies)

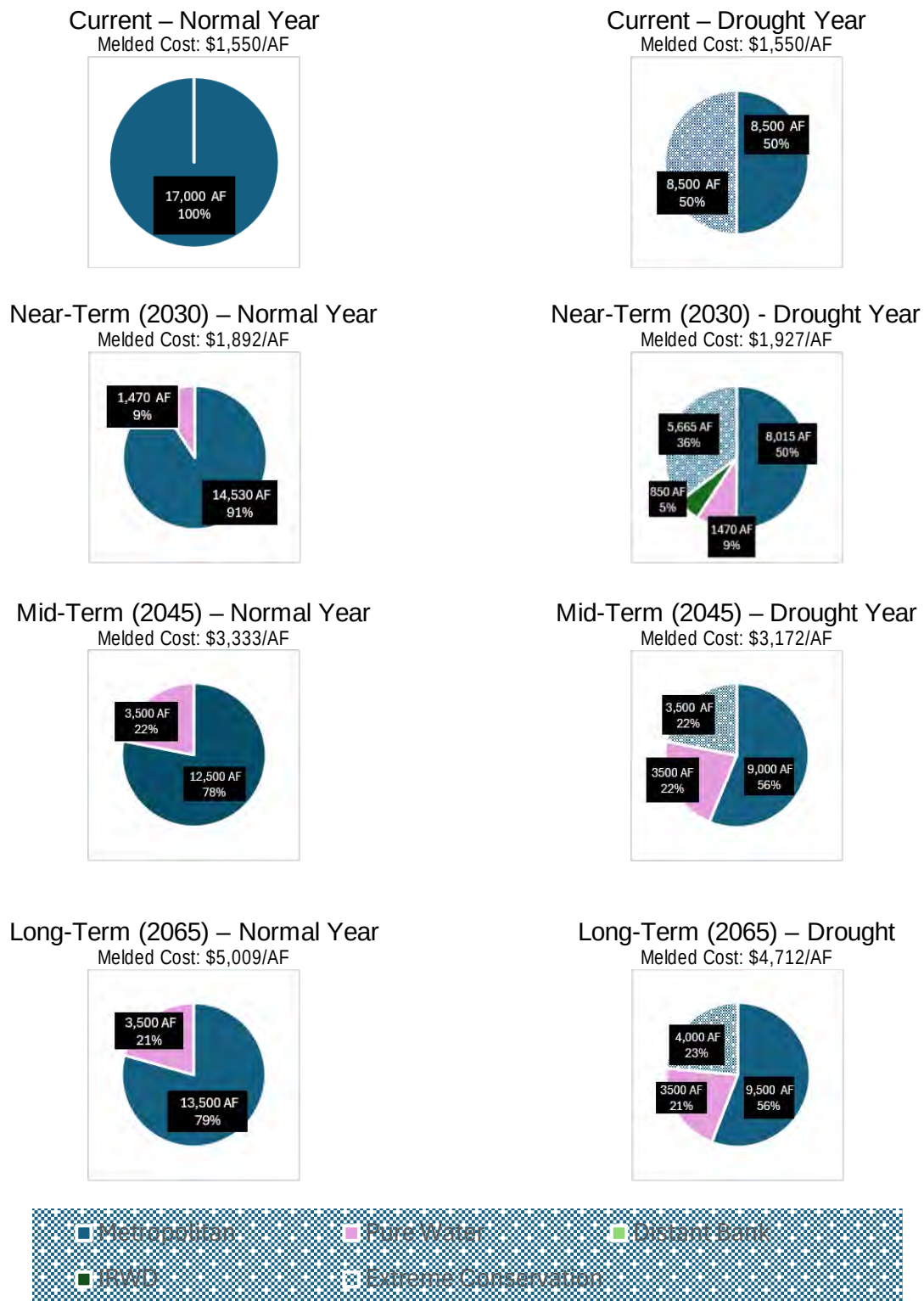
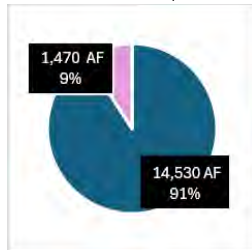
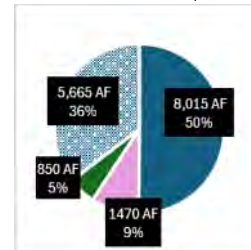


Figure ES-2. Near-Term (2030) Scenarios

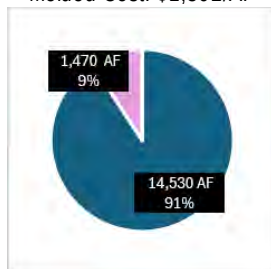
Near-Term Status Quo – Normal Year
Melded Cost: \$1,892/AF



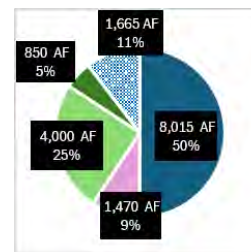
Near-Term Status Quo – Drought Year
Melded Cost: \$1,927



Near-Term with Distant Bank – Normal Year
Melded Cost: \$1,892/AF



Near-Term with Distant Bank – Drought Year
Melded Cost: \$2,356/AF



Bill Impact
Distant Bank
+~\$19



Figure ES-3. Mid-Term (2045) Scenarios

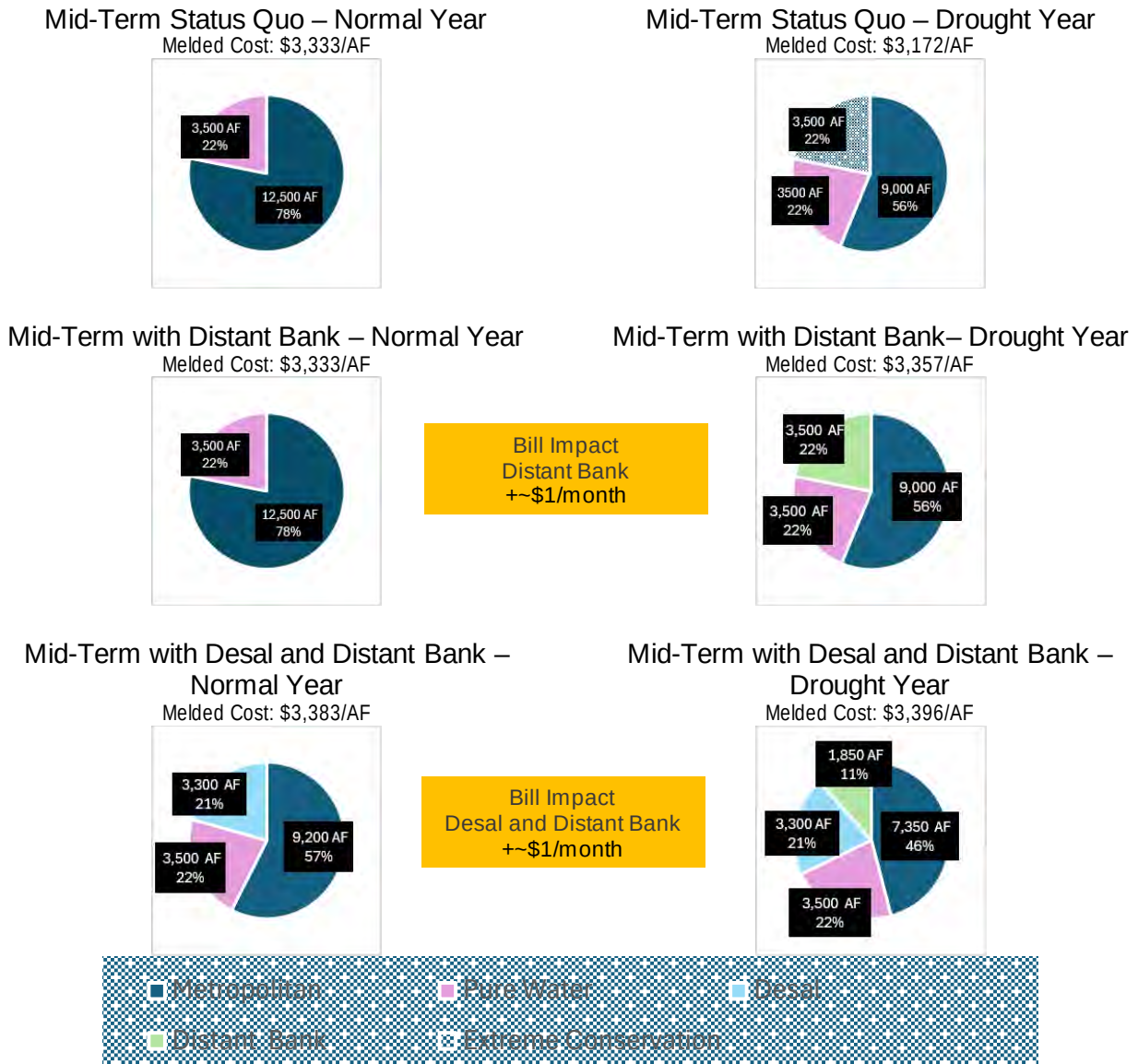
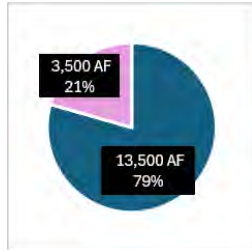


Figure ES-4. Long-Term (2065) Scenarios

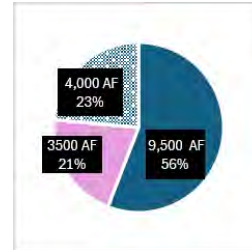
Long-Term Status Quo – Normal Year

Melded Cost: \$5,009/AF



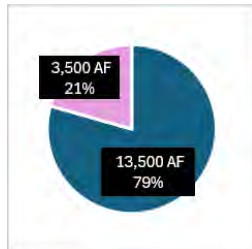
Long-Term Status Quo – Drought Year

Melded Cost: \$4,712/AF



Long-Term with Distant Bank – Normal Year

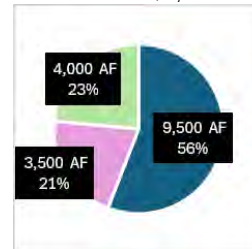
Melded Cost: \$5,009/AF



Bill Impact
Distant Bank
+~\$0/month

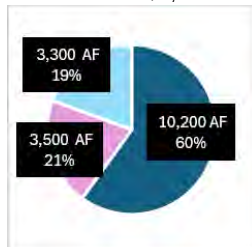
Long-Term Distant Bank – Drought Year

Melded Cost: \$4,763/AF



Long-Term with Desal and Distant Bank – Normal Year

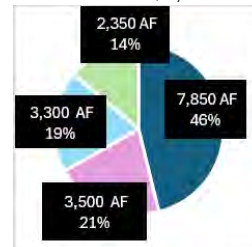
Melded Cost: \$4,655/AF



Bill Impact
Desal and Distant Bank
+~\$0/month

Long-Term with Desal and Distant Bank – Drought Year

Melded Cost: \$4,510/AF



Section 1: Introduction

The Water Supply Reliability and Diversification Study (WSRDS) has been conducted for the Las Virgenes Municipal Water District (LVMWD, District) in order to identify alternatives to diversify the District's water supply portfolio. This report presents the WSRDS and identifies the preferred portfolio of alternatives, selected using a collaborative stakeholder-driven process.

1.1 Overview of Las Virgenes Municipal Water District

Las Virgenes Municipal Water District is a special district formed in 1958 for the purpose of supplying water to western Los Angeles County. LVMWD currently serves approximately 70,000 people within its 122-square-mile service area. Ventura County is to the northwest of the service area, the City of Los Angeles to the east, and the City of Malibu to the south. The cities of Agoura Hills, Calabasas, Hidden Hills, Westlake Village, and adjacent parts of unincorporated areas of Los Angeles County are in the service area (see Figure 1-1).

LVMWD is a full-service water utility that provides both drinking water and recycled water. Approximately 96 percent of LVMWD's drinking water supplies are purchased from the Metropolitan Water District of Southern California (Metropolitan) with a minor amount of imported water purchased from Ventura County Waterworks Districts 8 and 17 and the City of Los Angeles. Imported water is stored in the Las Virgenes Reservoir to reduce deliveries from Metropolitan in the summer during peak demands for cost savings and for up to six months of emergency supplies. There is a minor amount of surface water runoff into the reservoir that benefits the water supply during wet years.

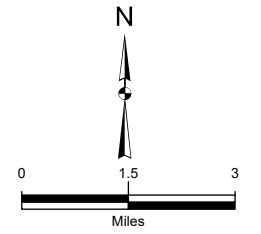
In addition, LVMWD is also a full-service wastewater utility. In 1964, LVMWD and Triunfo Water and Sanitation District established the Las Virgenes-Triunfo Joint Powers Authority (JPA) to cooperatively collect and treat wastewater generated in the Malibu Creek Watershed. Tapia Water Reclamation Facility (WRF), operated by the JPA, produces high-quality recycled water that is typically used for irrigation. Recycled water is supplemented by a minor amount of groundwater from the Russell Valley Basin in Westlake.

\\kjc-local\kjc-root\GIS\GIS Cloud\Projects\Las Virgenes\Events\20250108_Las Virgenes\PS\LVMWD Water Supply.aprx / Fig 1-1_LVMWD Site Map
Date: 1/17/2025 Printed by: Jennifer Joern
Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere Projection: Mercator Auxiliary Sphere



Legend

- Las Virgenes Municipal Water District
- Counties
- Cities
- Rivers and Creeks
- Primary Road
- Secondary Road



Kennedy Jenks

Las Virgenes Municipal Water District
Los Angeles County, CA

Las Virgenes Municipal Water District

1.2 Purpose of the Study

LVMWD regularly evaluates opportunities, challenges, and potential investments to ensure the delivery of high-quality, reliable water service that is both cost-effective and environmentally responsible. This study aims to identify strategies for diversifying the District's water supply portfolio under a range of supply conditions. The specific objectives of the study are to determine:

- Reliability of the current supply.
- Reliability of alternative supplies.
- Cost and impact to an average efficient residential customer's water bill for the optimal supply portfolio.
- Degree to which the District should rely on Metropolitan supply versus local/non-Metropolitan supply.
- Timeline for planning and implementing various alternative water supplies.
- Optimal / most-feasible water supply portfolio, both near-term, mid-term and long-term.

1.3 Need for Alternative Supplies

The need for supply diversification is fundamental to supply reliability. For example, during the drought emergency that ended in 2016, LVMWD was required to reduce water consumption by 36 percent compared to 2013 levels. At the height of the most recent drought in 2022 through 2023, LVMWD was faced with a 74 percent reduction in water supplies. Recent drought emergencies highlight the importance of developing alternative supplies in the face of changing climate conditions. Relative to supply alternatives, LVMWD has identified the following issues, which are described below.

1.3.1 Issue 1 - Limited Opportunities to Expand Existing Sources

LVMWD has limited local water supply opportunities as described below.

Groundwater. LVMWD overlies multiple groundwater basins, including the Russell Valley, Malibu Valley, and San Fernando Valley Basins. However, for various reasons these basins are not candidates for water supply for LVMWD. In the case of the Russell Valley Basin, groundwater yields are very low, and the water quality is very poor. The Malibu Valley Basin has seawater intrusion that impairs water quality and makes additional groundwater pumping undesirable.

Surface Water. Local surface water is limited. Malibu Creek Watershed, part of the Santa Monica Bay Watershed Management Area, is one of the largest watersheds draining into Santa Monica Bay; however, it faces water quality and quantity issues, loss of critical habitat, and hydrologic constraints. Pollutants of concern identified in the Los Angeles Basin Plan (SWRCB, 2014) include excess nutrients, sediment, and bacteria and Total maximum daily loads (TMDLs) exist for various portions of the watershed. Malibu Creek is the southernmost watercourse in California where steelhead trout still spawn, yet habitat degradation has occurred in Malibu Lagoon, a critical refuge for migrating birds and plant communities, at the mouth of the watershed. Hydrologically, the steep terrain results in rapid runoff and variable annual rainfall. Together, these factors limit use of this resource. There are no feasible means to store runoff (e.g. building another dam in the Santa Monica Mountains).

LVMWD receives a minor amount of runoff to the Las Virgenes Reservoir where imported water is stored prior to treatment and delivery. LVMWD estimates that there is about 770 acre-feet (AF) of runoff to the reservoir annually; enough to offset the approximately 700 acre-feet per year (AFY) of evaporation.

Recycled Water. Despite challenges, LVMWD has made significant progress in developing local supplies. Recycled water from the Tapia Water Reclamation Facility, supplemented by Russell Valley area groundwater, provides irrigation water and accounts for about 20 percent of the total water use in the service area (about 3,465 AFY in 2024). However, most feasible opportunities for non-potable recycled water use appear to have been exhausted in the service area. Moreover, recycled water use is expected to decline as customers adopt greater conservation measures. During winter and shoulder months, irrigation demand drops, reducing recycled water use and resulting in excess reclaimed water being discharged to Malibu Creek. Beginning in November 2030, new discharge limitations will restrict LVMWD's ability to discharge tertiary treated water to Malibu Creek. These constraints, combined with the lack of new non-potable recycled water demands, have led LVMWD to pursue potable reuse of its recycled water. Given the minimal opportunities for further recycled water use, this study emphasizes developing additional potable, rather than recycled water supplies.

Pure Water Project Las Virgenes-Triunfo. This project, led by LVMWD and Triunfo Water and Sanitation District (TWSD), will treat excess recycled water through an advanced purification process to produce potable water. Although not completed, the Las Virgenes-Triunfo Pure Water Project is expected to produce up to 1,470 AFY of potable water for LVMWD's use from recycled water by 2030 and 3,500 AFY by 2040 with the addition of other sources (e.g., local stormwater/urban runoff, and impaired groundwater). These amounts do not include TWSD's share of the water. *While this project represents a major step toward supply reliability, this study focuses on identifying additional water sources beyond the Las Virgenes-Triunfo Pure Water Project to further diversify the District's portfolio and reduce reliance on imported and recycled water.*

1.3.2 Issue 2 - Uncertain Imported Water Deliveries, Need for Local Supplies

Metropolitan obtains water from two main sources: the State Water Project (SWP) and the Colorado River. They also utilize groundwater recovery and have several reservoirs where they store the water. However, despite being a member agency of Metropolitan, not all these sources

are available to LVMWD. LVMWD is in a geographic area that is “SWP-dependent”. With current infrastructure, Metropolitan can only move SWP and a limited amount of Colorado River water to northern portions of its territory. Low supply from northern California and the SWP system is a particular vulnerability for SWP-dependent areas such as LVMWD.

As mentioned earlier, during the drought emergency that ended in 2016, LVMWD was required to reduce water consumption by 36 percent. From October 2019 through March 2023, SWP deliveries dropped sharply, and in November 2021 Metropolitan declared a Water Shortage Emergency for the SWP-dependent areas. At the height of the drought, LVMWD faced a 74 percent reduction in its allocation from Metropolitan.

Metropolitan continues to work on ways to provide SWP-dependent areas access to other supplies through engineering and infrastructure improvements and is also investing in new, more climate-resilient supplies such as regional recycled water – Pure Water Project Southern California. Metropolitan has, and continues to encourage, member agencies to develop alternative water supplies.

The State Water Project Delivery Capability Report (DWR 2024) analyzes current and projected SWP water supply. Over the last 10 years, historical deliveries of SWP (Table A) and carryover water (Table A deliveries include carryover water in the year it is delivered) have ranged from 278 thousand acre-feet (TAF) to 3,084 TAF annually, as shown in Figure 1-2. The 10-year annual average is 1,416 TAF, well below the maximum possible Table A allocation of 4,173 TAF. Looking ahead, Metropolitan’s climate change scenarios, which project conditions 20 years into the future, estimate that average annual Table A deliveries will decline by 12 to 22 percent unless several improvements are made to the SWP system (e.g. Delta conveyance pipeline, the addition of Sites Reservoir, addressing subsidence on the California Aqueduct, etc). Under these scenarios, wet-year deliveries may range from 2,292 to 3,848 TAF, while dry-year deliveries could fall to 75 to 625 TAF.

Key Assumption

For purposes of this study, it's assumed that at least some improvements to the SWP system are made but Metropolitan would still need to reduce allocations to SWP dependent agencies by up to 50 percent in every 3 out of 10 years.

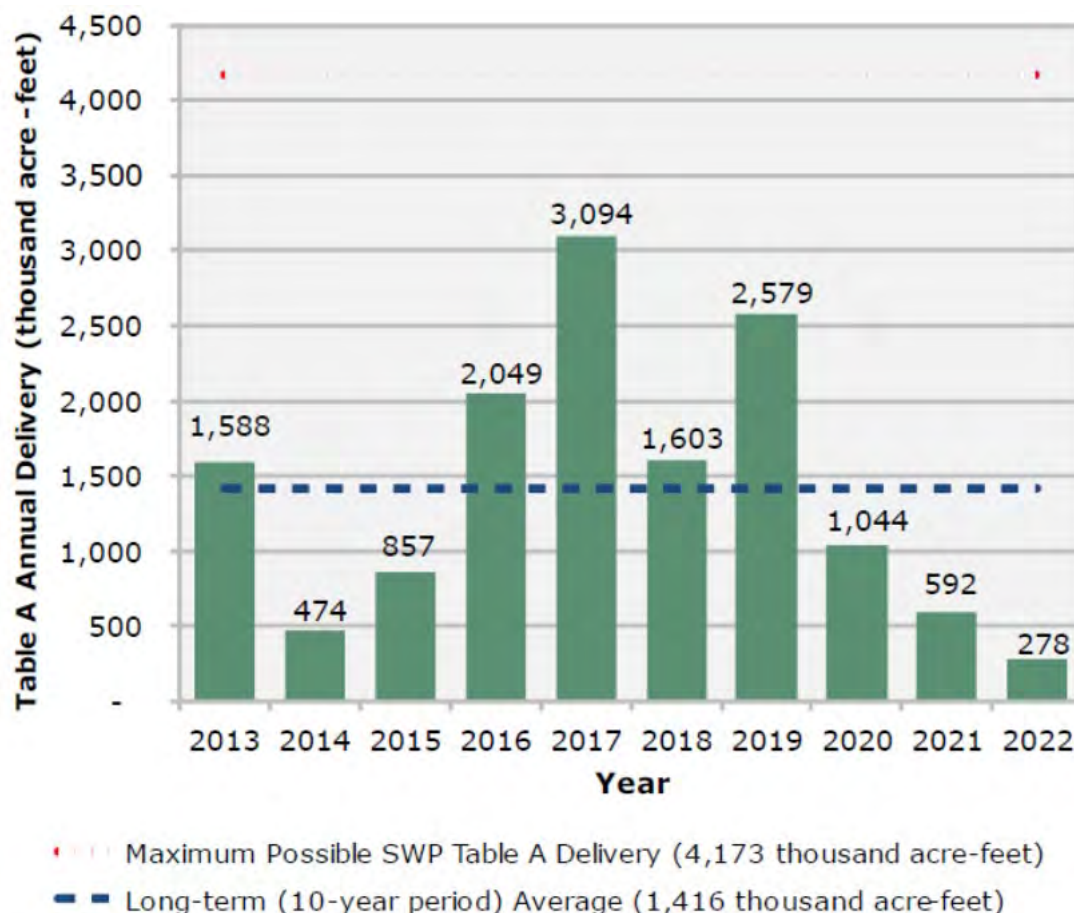
Stakeholder Input

In a poll, Stakeholders “Strongly Agreed” that as part of this study Metropolitan supply should be assumed to be equal to or less than 50% of total water supply during a drought or water shortage. The recommended portfolio should not require more than 50% Metropolitan water during drought/shortage.

Note that in a few instances, Metropolitan’s contribution during drought slightly exceeds 50%. This is because the mid and long-term portfolios during drought assume that Stage 2 of the Sepulveda Pass Improvements (see Section 2.5.2) as well as Metropolitan’s Pure **Water**

Southern California Project are constructed, which adds up to 2,750 AFY to MWD's supply for LVMWD use.

Figure 1-2: Historical Deliveries of SWP Table A and Carryover Water from 2013-2022

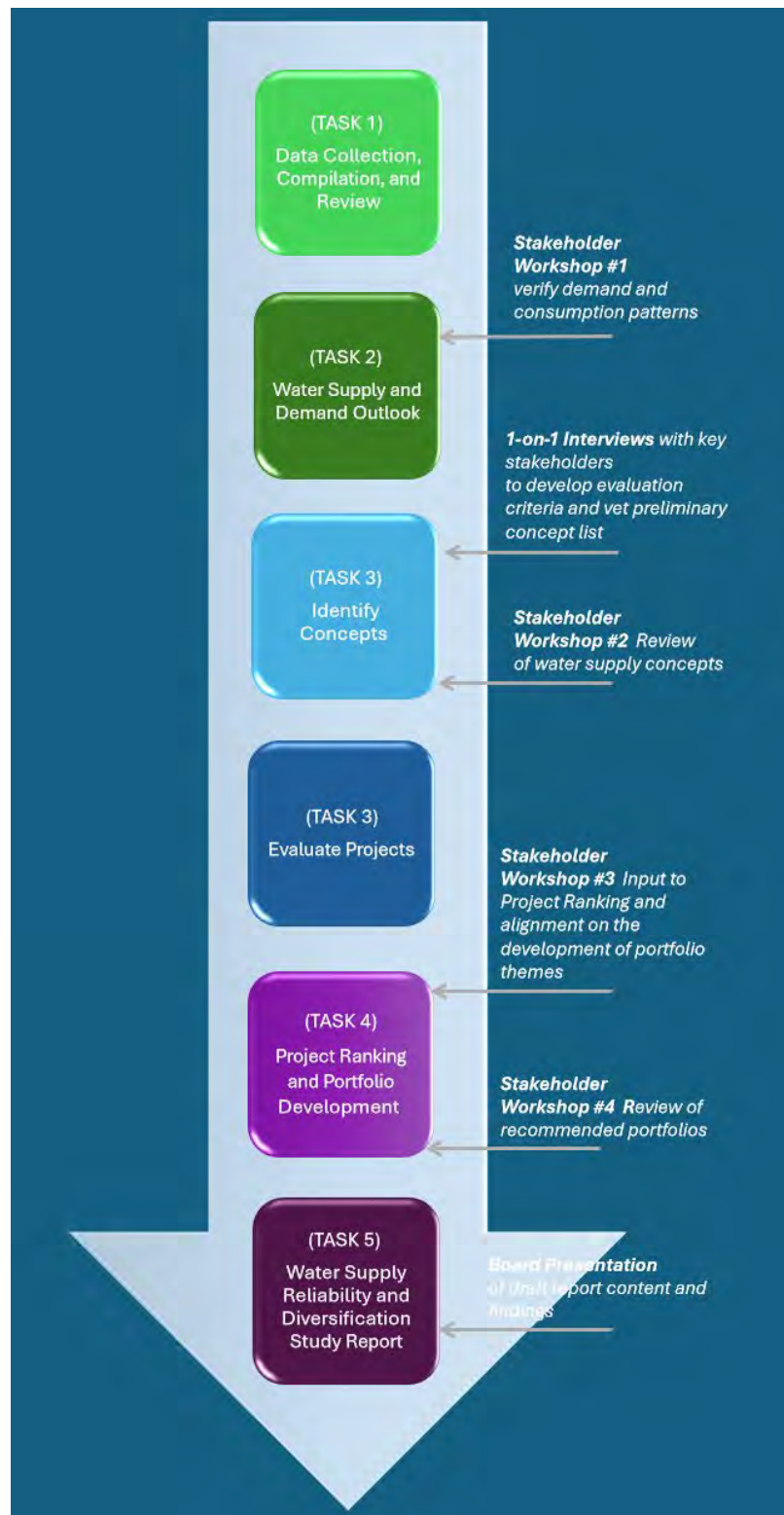


Source – Figure 5-1 from Metropolitan (2024).

1.4 Project Approach

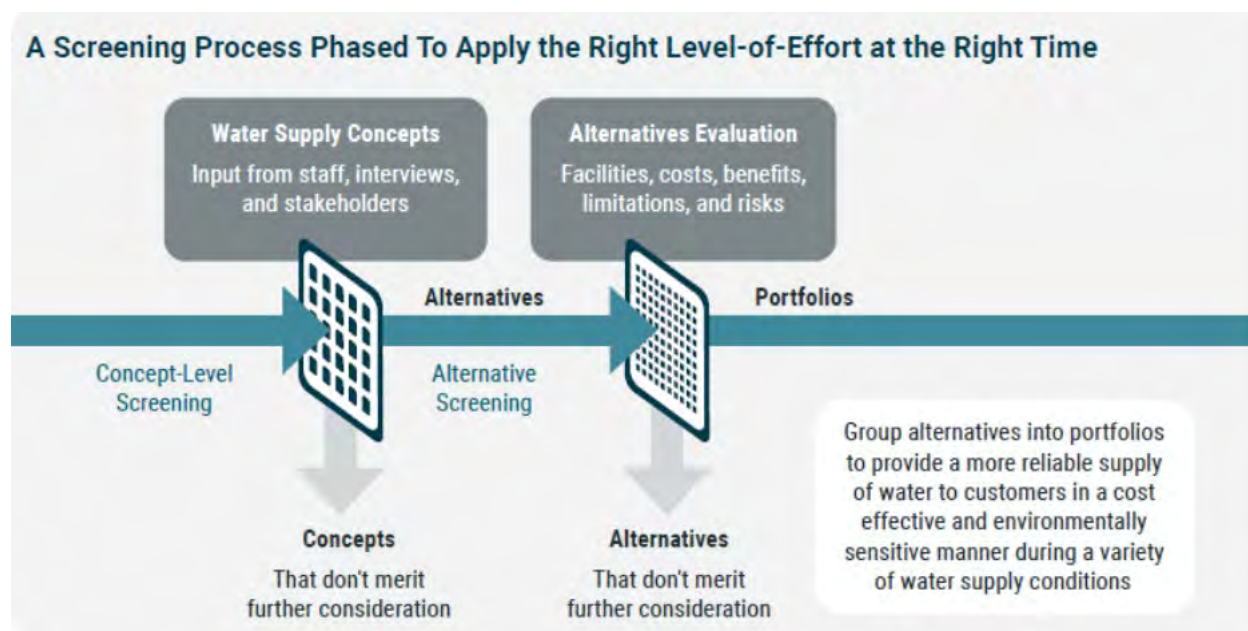
The project approach was comprehensive and collaborative as shown on Figure 1-3, consisting of five discrete tasks, guided by stakeholder input through workshops and 1-on-1 interviews.

Figure 1-3: Comprehensive and Collaborative Approach to Water Supply Diversification



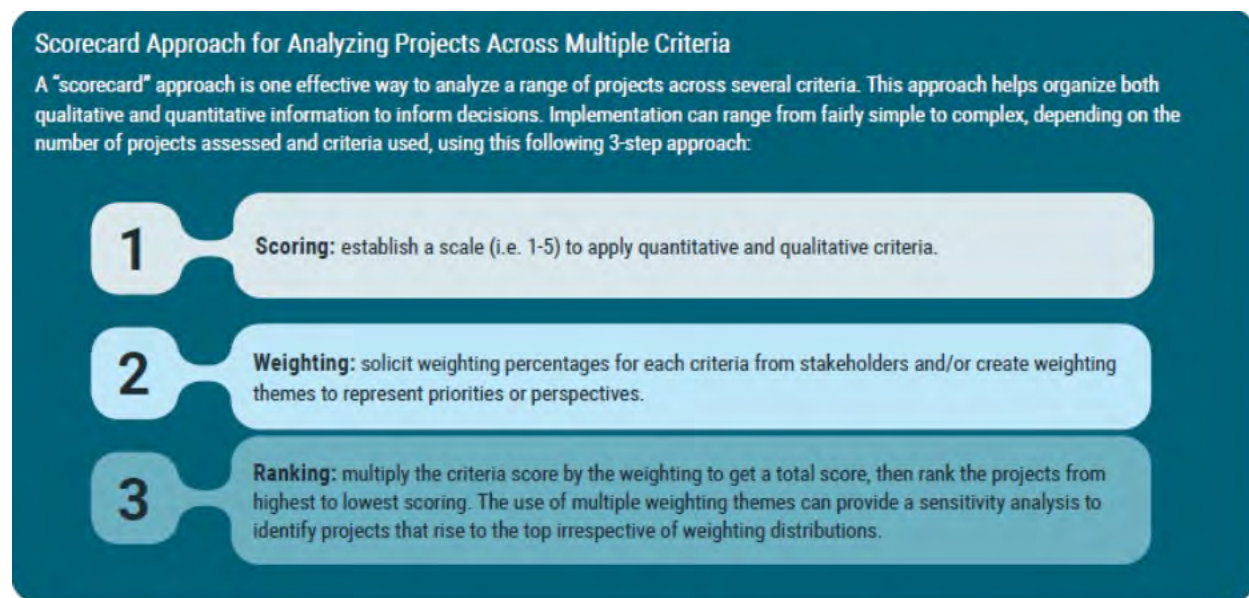
- **Task 1 – Data Collection, Compilation, and Review** – this task summarized water resources in the region, District, and neighboring agencies by compiling and reviewing relevant data and studies.
- **Task 2 – Water Supply and Demand Outlook** – this task characterized the water supply and demand outlook. In addition, it tabulated the supply gap. Results of this task are described in Section 2.
- **Task 3 – Identification of Concepts and Evaluation of Projects** – this task identified concepts for alternative supplies, followed by an evaluation of projects and corresponding costs. Concept-level screening was used to vet a wide range of concepts, as shown in Figure 1-4. Results of this task are described in Section 3.

Figure 1-4: Concept Level Screening Process



- **Task 4 – Project Ranking and Portfolio Development** – this task developed a matrix of project alternatives for scoring and ranking, using a scorecard approach as shown in Figure 1-5. Next, projects were grouped into portfolios, aligned by theme. Results of this task identified a preferred portfolio of alternatives. This work is described in Section 4.

Figure 1-5: Scorecard Approach to Analyzing Alternatives



Task 5 – WSRDS Report – Results of the study are documented in the WSRDS Report (this document).

- **Stakeholder Participation** – All work was guided by consistent and collaborative stakeholder participation and feedback. There were four (4) stakeholder workshops, as summarized in Table 1-1, and supplemented by 1-on-1 interviews. Stakeholder input helped to develop evaluation criteria, vet a preliminary concept list, and identify preferred alternatives. The list of stakeholders and stakeholder materials are provided in Appendix A.

Table 1-1: Summary of Stakeholder Workshops

Workshop No.	Topic	Date
1	Purpose and background, initial input to supply enhancement concepts	March 6, 2025
2	Review of water supply concepts and develop ranking criteria	May 27, 2025
3	Input on project ranking and alignment on portfolio theme development	February 2, 2026
4	Review and input on recommended portfolios and next steps	May 20, 2026

1.5 Planning Period

This study is looking at a 40-year planning period, from 2025 to 2065.

1.6 Approach to Costing Supply Alternatives

Costs were developed in 2024 dollars. For projects with existing estimates from other studies, costs were updated using the ENR Construction Cost Index for the Los Angeles region. Because costs are presented in 2024 dollars, actual (nominal) future costs will be higher than the amounts shown here. Where new estimates were required, they were developed at a conceptual level consistent with Association for the Advancement of Cost Engineering (AACE) International Class 5 standards.

To compare different supply concepts, Net Present Value (NPV) was calculated where possible. NPV includes initial, annual, and production costs of a project and applies a 2.1 percent discount rate based on 30-year maturity guidance in *Circular A94: Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs* (updated January 2025). NPV evaluates costs over a 40-year period.

For many projects, initial costs were assumed to be financed through a loan with 30-year amortization period and a 4.6 percent interest rate, consistent with the Bloomberg Municipal Bond 30 Year Yield Index Fund (January 2025).

1.7 Organization of Report

This report is organized into six (6) sections as follows:

- **Section 1 – Introduction** – this section introduces the study, including an overview of the District, study purpose, supply issues and the need for alternative supplies, along with the study approach.
- **Section 2 – Status Quo Water Supply Portfolio** – this section describes the current water supply portfolio available or soon-to-be available (Pure Water and IRWD banking) to LVMWD during normal and drought hydrologic conditions.
- **Section 3 – Water Supply Concepts** – this section provides background information including water supply characteristics, potential yield, and estimated cost for the five water supply concepts selected by the stakeholder group including ocean desalination (OceanWell), which was already being studied concurrent to producing this report.
- **Section 4 – Screening of Concepts** - In this section, water supply concepts were evaluated based on criteria selected by stakeholders. Concepts were then grouped into themes, such as ability to provide supply during a drought, impact to customer water bills, supply for emergencies, and timeline for implementation.
- **Section 5 –Portfolio Options and Recommendations** – this section describes actions LVMWD should take in the near term, mid-term, and long-term to improve the District's water supply portfolio based on input from stakeholders.
- **Section 6 – References**

Section 2: Status Quo Water Supply Portfolio

LVMWD and stakeholders to this Water Supply Diversification and Reliability Study recognize that the Status Quo is undesirable from the standpoint of water supply reliability. Water shortage conditions could be severe drought or a failure in a major water delivery system. An example would be an earthquake that severely damages the California Aqueduct, which conveys State Water Project supplies.

2.1 Anticipated Demands

To understand the need for supplies, this section examines the demand side of the equation. LVMWD regularly evaluates past and current water use as a way to understand trends and aid in the estimate of future demands for different customer types (potable vs non-potable). Proposed land use trends and population projections factor into the future demand estimates. Table 2-1 shows the existing 2024 demand, anticipated demands for years 2030 through 2045, and a projection of demands to 2065. The demand projections in this study recognize the trends in customer water use, as well as population changes. However, demand forecasting, particularly in later years has inherent uncertainty; for example, the extent to which customer demands will decline. LVMWD has implemented demand management for many years, offering customers programs to improve water efficiency. These efforts have accelerated under the state regulation *Making Water Conservation a California Way of Life*, which shifts water management from reactive drought response to a long-term conservation focus. In evaluating compliance with the regulation, LVMWD anticipates further reduction in per capita demands. An overall decrease in per-capita demand will occur, even as population in the service area is projected to increase. LVMWD does confirm and adjust demand projections on a regular basis. The water supply portfolios considered in this study are meant to address the anticipated demand in normal and drought conditions as they are understood at this time.

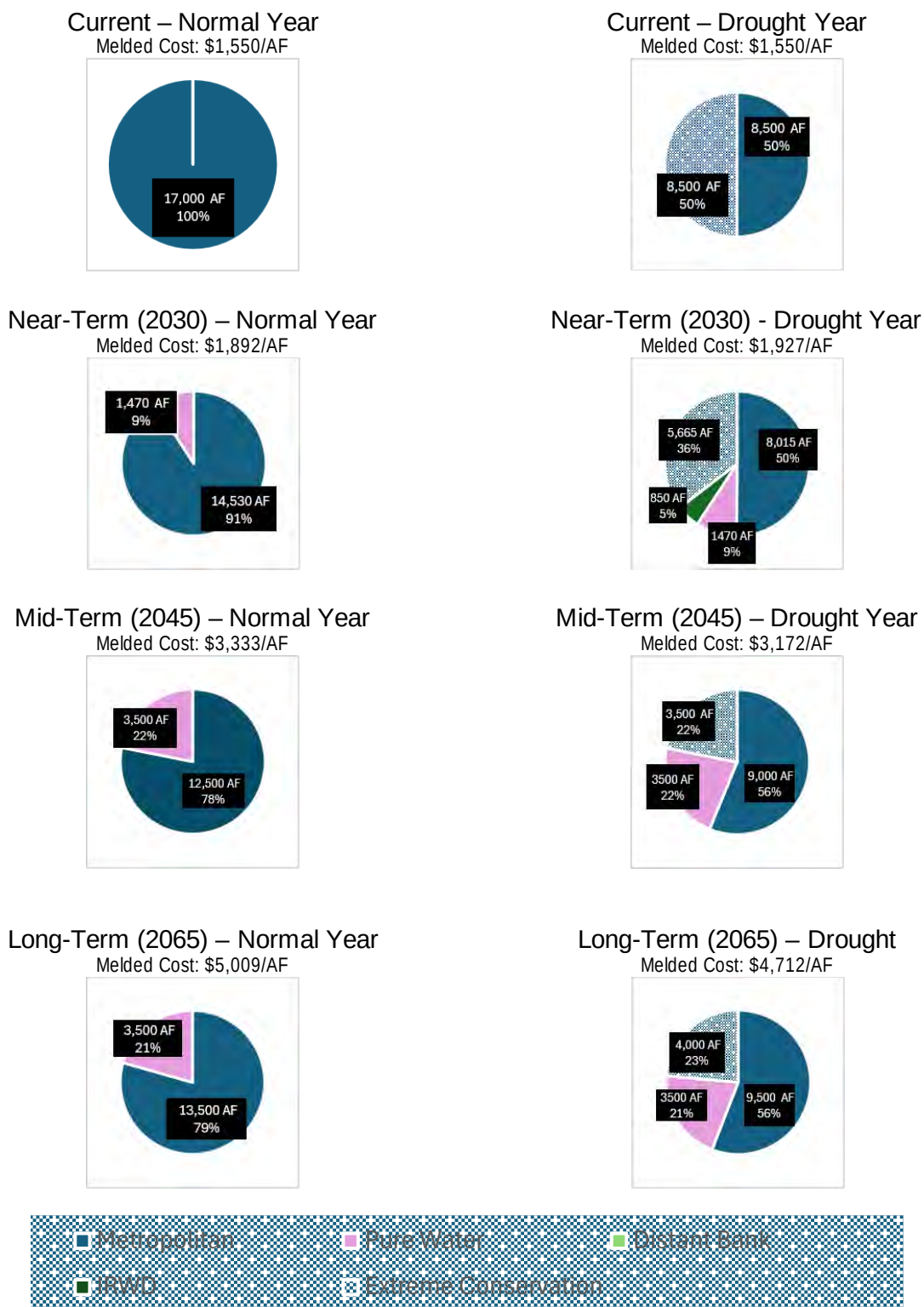
Table 2-1: Historic and Anticipated Water Demands in LVMWD Service Area (AF)

	Current (2024)	Near-Term (2030)	Mid-Term (2045)	Long-Term (2065)
Potable	15,611	16,000	16,000	17,000
Non-Potable	3,465	3,800	3,800	3,800
Total	19,076	19,800	19,800	20,800

2.2 Current Portfolio Normal Year and Drought

The current portfolio is heavily dependent on SWP water purchased from Metropolitan. As shown in Figure 2-1 below, SWP water makes up close to 100 percent of the District's potable supply.

Figure 2-1: Current and Future Potable Water Supply Portfolios (Status Quo)



The 2022 – 2023 water year highlighted Metropolitan's limited ability to provide sources other than SWP water to SWP-dependent areas, including LVMWD. This reliance becomes critical when SWP deliveries are curtailed during drought and other water shortage conditions. Climate change and regulatory constraints have reduced SWP capacity, and the long-term outlook indicates further decreases in allocations. Review of historic data shows that Metropolitan has implemented its Water Supply Allocation Plan (WSAP), in response to drought, five times in the last 20 years.

Key Assumption

An underlying assumption of this study is that droughts will occur as often as three years per decade and up to five years in any 20-year period.

Figure 2-1 illustrates the current water supply portfolio available to LVMWD during a drought or other water shortage condition. Under the current portfolio, in a severe drought, extreme customer conservation is required to compensate for reduced deliveries of SWP water. LVMWD's goal is to eliminate the need for "on and off again" conservation mandates, but instead to rely on on-going efficient water use by its customers and to have a water supply portfolio in place that can match efficient water use at all times and regardless of hydrologic conditions.

Stakeholder Input

In a poll, Stakeholders "Strongly Agreed" that 'On again off again' calls for conservation should be avoided – customers should use water efficiently at all times and adequate supply should be available regardless of whether there is a drought. The recommended portfolio should not rely on extreme/mandatory conservation.

2.3 Future (Status Quo) Portfolio Normal Year and Drought

Figure 2-1 illustrates the planned future portfolio (status quo) of the District during a normal and drought year. Since the 2022 – 2023 drought and SWP supply curtailments, LVMWD has taken steps to augment supplies rather than ask customers to undertake extreme conservation. Programs include a groundwater banking partnership with Irvine Ranch Water District (IRWD) to benefit drought supplies and the Las Virgenes-Triunfo Pure Water Project that will benefit normal and drought year supplies. Additional details on the Pure Water Project are provided in Section 2.5.1. Parallel to actions by LVMWD, Metropolitan is undertaking projects to improve conveyance of Colorado River water to the SWP-dependent areas, in addition to projects that will bolster SWP water supplies. These projects include the Sepulveda Pass Improvements Stages 1 and 2, detailed in Sections 2.5.2 and 2.5.3, respectively.

In evaluating the future (status quo) scenario, there is still dependency on Metropolitan supplies and in a drought, extreme conservation could be necessary. In the status quo scenarios, in later years, the amount of extreme conservation needed is anticipated to be about 4,000 AFY. The

estimate of 4,000 AFY is affected by assumptions of demand that are in turn affected by population growth rate, how water efficient the new growth will be, and the levels of efficiency the existing service area may achieve. The estimate of 4,000 AFY is also affected by the volume of Metropolitan supplies available, particularly Metropolitan supplies available in a drought. It should also be noted that if LVMWD implements new core water supplies that are available during normal years, it would likely negatively impact the amount of water that Metropolitan would make available to the District during drought years. Metropolitan bases cutbacks on the amount of recent historical deliveries; if LVMWD has replaced Metropolitan supplies, the amount of Metropolitan water in drought years will be likewise reduced. Therefore, should LVMWD add core water supplies or supplies that offset Metropolitan during a normal year, like desalination, the target amount of new supplies needed during drought could exceed the minimum 4,000 AFY.

Key Assumption

4,000 AFY is the minimum long-term drought supply "target" within this study.

This target is influenced by the assumptions that it is based on and will be re-evaluated over time. But it represents the best estimate available at the time of the study and provides the basis for comparing the various concepts.

2.4 Cost of Metropolitan Supplies and Services

Under the status quo, LVMWD will remain dependent on Metropolitan supplies. In addition to reliability concerns tied to SWP deliveries, the cost of Metropolitan water is rising faster than general inflation. Metropolitan attributes these increases to higher supplier costs, reduced water sales that require greater fees to cover fixed operating expenses, and investments to address aging infrastructure and climate change. From 2024 to 2026, adopted rates increase by 8.5 percent. The ten-year financial forecast provided by Metropolitan in January 2026 projects rate increases of 9.5 percent in 2027 and 2028, 9 percent annually 2029 through 2036, and 5 percent annually through 2046 (Metropolitan 2026). Table 2-2 illustrates projected rates for LVMWD's "All In" Metropolitan Full-Service Tier 1 water based on published estimates through 2046, followed by high (6 percent annually), medium (4 percent annually), and a low (2 percent annually) scenarios through 2065. For consistency, costs are expressed in present value per AF (2024 dollars). The rate increases provided by Metropolitan include inflation, but inflation has been removed for the purposes of the present value calculation in this report. As with all cost estimates in this report, future and present values are sensitive to assumptions about inflation and interest rates.

Table 2-2: High, Medium, and Low-Rate Scenarios for Metropolitan Full Service Tier 1 Water (\$2024)

Year	2030	2035	2040	2045	2050	2055	2060	2065
High Rate Scenario	1,879	2,398	3,061	3,907	4,986	6,364	8,122	10,366
Medium Rate Scenario	1,879	2,398	3,061	3,907	4,440	4,902	5,413	5,976
Low Rate Scenario	1,879	2,398	3,061	3,907	4,102	4,102	4,102	4,102
	Based on Metropolitan Estimates				Forecasted			

Several of the concepts examined in this study rely on use of Metropolitan facilities to treat and convey water to the LVMWD service area. It is assumed that the cost of these Metropolitan services will also increase at a rate greater than inflation, consistent with the costs for Metropolitan water. For the purposes of analysis, costs for treatment and conveyance through the Metropolitan system to LVMWD is assumed as shown in Table 2-3.

Table 2-3: Estimated Cost of Metropolitan Service to Treat and Convey Water to LVMWD (\$2024/AF)

Year	2030	2035	2040	2045	2050	2055	2060	2065
Cost of Treatment and Conveyance	1,199	1,537	1,962	2,504	3,196	3,528	3,896	4,302
	Based on Metropolitan Estimates				Forecasted			

Stakeholder Input

In a poll, Stakeholders “Agreed” that the medium rate increase scenario for future Metropolitan rates is most appropriate for use in evaluating portfolios.

2.5 Other Planned (Status Quo) Supply Projects

The projects described below are in various stages of implementation but will benefit the supply reliability and/or supply volume available to LVMWD. Review of these projects improves the understanding of outstanding opportunities to diversify the LVMWD supply. The projects described are considered technically feasible and are actively being pursued by LVMWD and/or Metropolitan Water District.

Interagency Connections

- Existing LVMWD-Calleguas Interconnection
- Planned LVMWD-WWD29 Interagency Connection

Near-Term Projects to Bolster Current Supply/Decrease SWP Dependence:

- Additional Water Conservation Incentives, Actions and Opportunities (e.g. LVMWD's Landscape Transformation Program)
- Pure Water Project Las Virgenes-Triunfo
- Sepulveda Pass Improvements Stage 1 – Upgrades to Metropolitan Water District System

Longer-Term Projects and Concepts Being Studied:

- Malibu District 29 Interconnection Pipeline
- Sepulveda Pass Improvements Stage 2

It's important to note that even with these improvements, this study assumes that allocations from Metropolitan Water District could be reduced by up to 50 percent (of normal year supply) in every three out of 10 years.

2.5.1 Interagency Connections

2.5.1.1 LVMWD-Calleguas Interconnection

This project is complete and can be utilized to move water between LVMWD and Calleguas and could be used to move water identified as part of this Water Supply Reliability and Diversification Study. LVMWD and Calleguas both operate potable water systems largely dependent on imported water supply. Both agencies are subject to scheduled and unscheduled interruptions of water deliveries that can negatively impact their ability to deliver potable water to their respective customers. This interconnection, a 5,000 foot, 30-inch diameter pipeline, is a cost-effective way to deliver water between agencies if one were to experience a complete or partial supply interruption that did not significantly affect the other agency and would be of mutual benefit to both systems. The interconnection can move up to 30 cubic feet per second (cfs) and if operated continuously could deliver about 20,000 AFY. Details for the LVMWD-Calleguas Interconnection are provided in Table 2-4. However, if both Calleguas and LVMWD are “cut-off” from or there is a severe shortage of water available from the State Water Project and if Calleguas or one of its member agencies does not develop a new water supply, the interconnection may provide little benefit.

Table 2-4: LVMWD - Calleguas Interagency Connection Summary

Metric	Detail
Potential Yield	Up to 20,000 AF, but dependent on water available
Infrastructure Needed	Complete
Timeline to Implement	Complete
Costs	Complete

2.5.1.2 LVMWD - Los Angeles County Waterworks District 29 Interagency Connection

This project is still at the feasibility stage and funding to build the project has not yet been committed. The project would consist of building a pipeline between LVMWD and Waterworks District 29 (WWD29). WWD29 serves the Malibu area. The connection would be roughly 25,500 feet of 16-inch diameter pipeline with two to three pump stations along Malibu Canyon Road. The connection would allow mutual support between the districts during emergencies, droughts, or other needs. LVMWD's primary imported water source is SWP water, WWD29's primary water source is Colorado River water, the interconnection would give each agency access to a source they do not currently have access to. The details of the Interagency Connection, known at the current time, are provided in Table 2-5. This interconnection could provide additional resiliency for LVMWD since WWD29 does receive water from the Central Pool, including Colorado River Water. However, for purposes of this study, the benefits of this interconnection by itself have not been accounted for in the portfolios. This should be revisited if ocean desalination or Concept 4 – South Oxnard Plain Brackish Water Treatment Facility are not pursued, as both of these supply sources already require the construction of an interconnection pipeline with WWD29.

Table 2-5: LVMWD-WWD29 Interagency Connection Summary

Metric	Detail
Potential Yield	Up to 4,000 AF, but dependent on water available to WWD29
Infrastructure Needed	25,500 feet of 16" diameter pipeline - Two to three pump stations
Timeline to Implement	Unknown (assumed by 2045)
Costs	Unknown, design is still conceptual

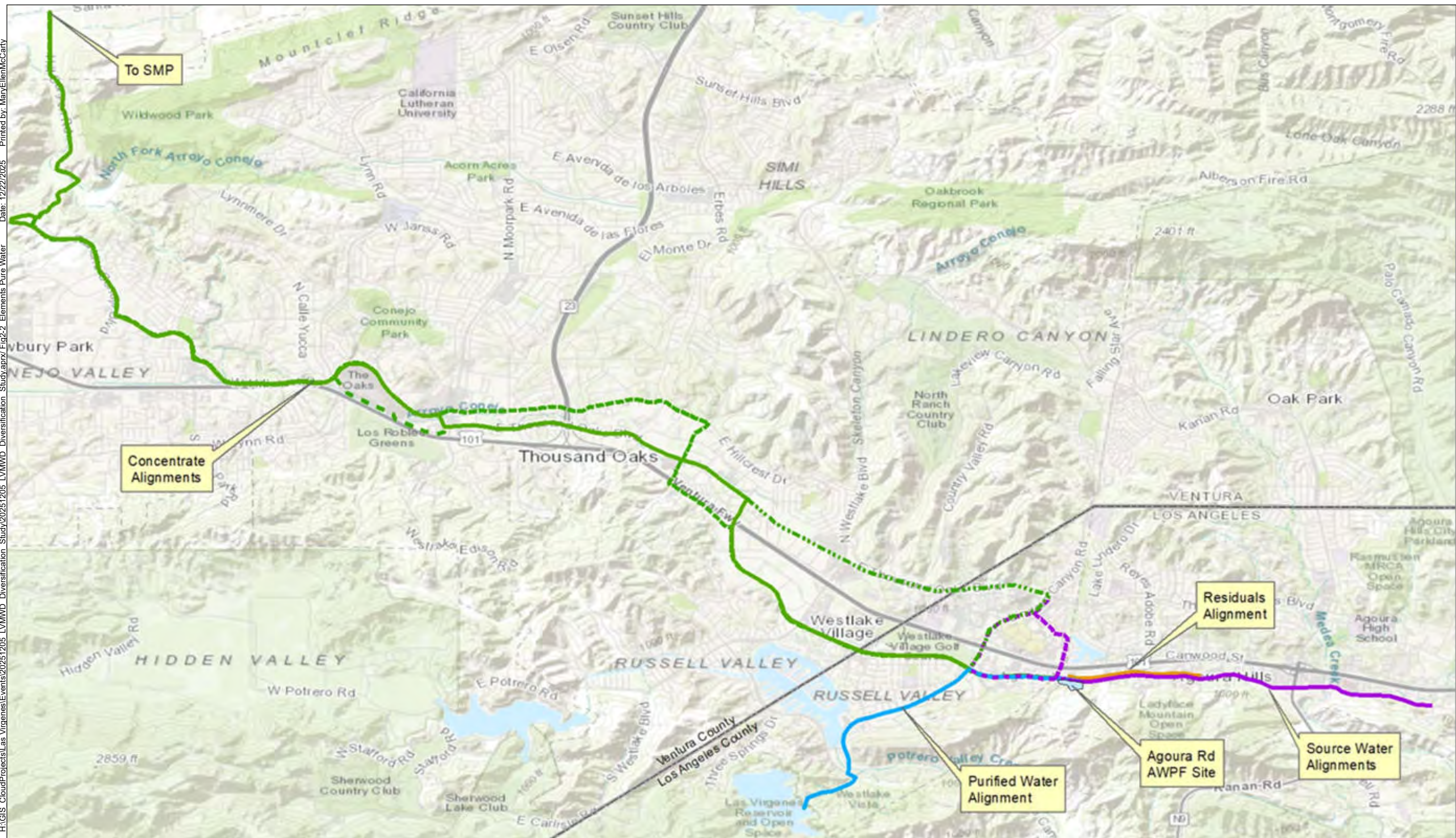
2.5.2 Pure Water Project Las Virgenes–Triunfo

Project Description

The Las Virgenes–Triunfo Pure Water Project (PWP) is a major initiative by the Las Virgenes–Triunfo Joint Powers Authority (JPA), which serves approximately 100,000 residents in western Los Angeles and eastern Ventura Counties. Currently, the existing Tapia Water Reclamation Facility (TWRP) produces disinfected tertiary recycled water primarily for irrigation, but demand is highly seasonal, creating winter surpluses and summer shortages, and new nutrient discharge limits for Malibu Creek will take effect in 2030. The project addresses three major objectives:

1. Compliance with new NPDES nutrient discharge limits for Malibu Creek effective November 16, 2030
2. Balance seasonal variation in recycled water demand
3. Create reliable and drought resilient regional water supply

To achieve these objectives, the project will construct new infrastructure, including an Advanced Water Purification Facility (AWPF) to treat recycled water from Tapia WRF using microfiltration, reverse osmosis, and ultraviolet advanced oxidation. The project also includes four new pipelines to convey source water from TWRP to the AWPF, deliver purified water from the AWPF to the Las Virgenes Reservoir, discharge reverse osmosis concentrate (ROC) to the Calleguas Salinity Management Pipeline, and return residuals (out-of-spec water) to the existing trunk sewer to TWRP. See Figure 2-2. Purified water will then be conveyed to the existing Las Virgenes Reservoir, where it will be blended with imported water and reside for four to six months before being treated at the existing Westlake Filtration Plant and distributed into the drinking water system.



Notes:

1. Locations are approximate.

The AWPf will be located on a seven-acre undeveloped site at 30800 Agoura Road in Agoura Hills and delivered via a progressive design-build model. It will treat up to 7.5 million gallons per day (MGD) of tertiary effluent from Tapia WRF and produce up to 6 MGD of purified water, equivalent to between 9 and 30 percent of LVMWD's drinking water supply. Initial production in 2030 is anticipated at 2,100 AFY, increasing to 5,000 AFY by 2040. LVMWD's share of this water is 70.6 percent with the remainder going to its JPA partner Triunfo Water and Sanitation District. The AWPf will operate primarily in winter and spring when surplus recycled water is available; during summer, recycled water from TWRF is fully used for irrigation, and AWPf may operate at reduced capacity or be offline.

Construction started in early 2026. The total cost is currently estimated at approximately \$466 million, funded primarily with recycled water and wastewater enterprise funds. All environmental clearances have been received, and the AWPf is scheduled to be operational by November 16, 2030.

Table 2-6: Pure Water Project Summary

Metric	Detail
Potential Yield & Benefit to LVMWD	• 6 MGD (5,000 AFY) of year-round drought-proof supply. • Provides up to 30% of LVMWD drinking water supply. • 2,100 AFY by year 2030 (1,470 LVMWD Share) • 5,000 AFY by year 2040 (3,500 LVMWD Share)
Infrastructure Needed	• 6 MGD AWPf (7 acres) ◦ Source water pipeline from TWRF to the AWPf (0.8 miles, 20" diameter) • Purified water pipeline to Las Virgenes Reservoir (16,100 LF, 2.7 miles, 20" diameter) • Brine (ROC) Pipeline to Calleguas Salinity Management Pipeline (13.2 – 14.5 miles, 12"-14" diameter) • Residuals/Off-Spec pipeline to existing 24" trunk sewer (1.1 miles, 8" diameter)
Timeline to Implement	• Construction completion by 2029 • Fully operational by November 2030
Costs (2024 ENR, Estimated)	• ~\$2,025/AF (2030 production rate and decreasing over time) • O&M only including brine disposal fee to Calleguas

2.5.3 Sepulveda Pass Improvements: Sepulveda Feeder Pumping Project Stage 1

Project Description

The Sepulveda Feeder, built in 1970, conveys SWP source water treated at the Joseph Jensen Water Treatment Plant to Metropolitan Water District's central pool in the Los Angeles Basin. The water only flows downhill one way even during water shortage conditions in order to maintain water quality in the long pipeline and cannot be pumped back. Las Virgenes Municipal Water District, Calleguas Municipal Water District, and western portions of Los Angeles

Department of Water and Power (primarily the San Fernando Valley) do not have access to this water. The only access to central pool water, which includes Colorado River water, is through the Greg Avenue Pump Station, which can deliver up to 50 cubic feet per second (CFS).

To improve drought resilience for SWP-dependent communities, Metropolitan is constructing two new pump stations on the Sepulveda Feeder. These facilities will increase operational flexibility by enabling reverse flow in the pipeline, allowing water from the Central Pool including Colorado River water and stored supplies from Diamond Valley Lake to be delivered to SWP-dependent areas during shortages. By providing this supplemental supply from Colorado River and Diamond Valley Lake during shortages, the project will help safeguard nearly 7 million people in northern Los Angeles and southern Ventura counties who were hardest hit during the last drought.

The project uses a progressive design-build approach to expedite delivery, marking Metropolitan's first use of this method since receiving legislative authority to do so. Stage 1 will add up to 30 CFS of capacity, supplementing the existing 50 CFS from Greg Avenue Pump Station for a combined total of about 80 CFS during drought conditions. Construction on the first pump station began in late 2025, with Stage 1 completion targeted for 2027. The overall Sepulveda Feeder Pump Stations Project is estimated at approximately \$280 million and designed for future expansion based on water supply conditions and Metropolitan Board approvals. Stage 1 improvements are expected to be completed by early 2029.

Metropolitan has not explicitly stated what the benefit (AF) will be to each "SWP Dependent" agency taking water from the Sepulveda Pass System. For this report it was assumed that the additional capacity in the Sepulveda Feeder would be apportioned based on dependency on Metropolitan supplies. Using data on population, reported imported water use, and overall supplies, a "Weighted Metropolitan" population was developed. This weighted population basically describes, for a given agency, how much of their service area population is dependent on Metropolitan supplies. The new capacity made available by the improvements would then be apportioned based on the weighted Metropolitan population. It was estimated that LVMWD could receive about 750 AFY benefit from the Stage 1 improvements.

Table 2-7: Sepulveda Pass Improvements Stage 1 Summary

Metric	Detail
Potential Yield & Benefit to LVMWD	- Exact allocation unknown - Expected to increase LVMWD supply by ~750 AFY.
Infrastructure Needed	Two new pump stations on Sepulveda Feeder
Timeline to Implement	Venice Pump Station to be completed in 2027. Sepulveda Pump Station targeted for completion in early 2029.
Costs	\$1,550 per AF (included in standard MWD treated water rate)

2.5.4 Sepulveda Pass Improvements: Sepulveda Feeder Pumping Project Stage 2

Project Description

Stage 2 of the Sepulveda Feeder Pump Stations Project will build upon the initial improvements by expanding reverse-flow pumping capacity to a total of approximately 160 CFS. This represents a significant increase from the existing configuration and earlier stages:

- Stage 1 Addition: 30 CFS
- Stage 2 Expansion: Adds up to 130 CFS for 160 CFS total

The expansion will occur within Metropolitan's current property holdings and is contingent on relining prestressed concrete cylinder pipe (PCCP) sections of the Sepulveda Feeder with welded steel pipe to accommodate higher operating pressures. Once implemented, Stage 2 will greatly enhance Metropolitan's ability to deliver Colorado River water and stored supplies from Diamond Valley Lake to State Water Project-dependent areas during drought and other water shortage conditions. These improvements will enable LVMWD to receive other future sources of water that would otherwise only be accessible to areas within the "central pool", including purified recycled water from Pure Water Southern California.

This improvement is anticipated to cost Metropolitan an additional \$350 million and potentially more. While detailed cost allocation and scheduling for Stage 2 are still under development, the expansion is expected to follow completion of Stage 1 and the necessary pipeline relining work. By providing this additional capacity, Stage 2 will significantly improve operational flexibility and drought resilience for nearly 7 million residents in northern Los Angeles and southern Ventura counties.

Metropolitan has not explicitly stated what the benefit (AF) will be to each "SWP Dependent" agency taking water from the Sepulveda Pass System from this project stage. As described earlier, it was assumed the new capacity made available by the improvements would be apportioned based on the weighted Metropolitan population. It was estimated that LVMWD could receive another 2,000 AFY from Stage 2, this would be in addition to the 750 AF from Stage 1, for a total of 2,750 AFY that can be added to the 50% reduction in normal-year MWD supplies for the mid- and long-term portfolios for purposes of this study.

Table 2-8: Sepulveda Pass Improvements Stage 2 Summary

Metric	Detail
Potential Yield	- Exact allocation unknown - Expected to bolster LVMWD supply by ~2,000 AFY.
Infrastructure Needed	Relining PCCP sections of the Sepulveda Feeder with welded steel pipe to handle higher operating pressures required for the increased capacity.
Timeline to Implement	Unknown (assumed between 2032 and 2045)
Costs	Unknown (assumed standard MWD treated water rate)

Improvements to the State Water Project and Metropolitan Water District's system, including Sepulveda Pass, are expected to only enhance the reliability of status quo supplies. Even with these improvements, this study assumes that future year allocations from Metropolitan Water District will be reduced by as much as 50 percent in three out of every ten years due to drought and other water shortage conditions.

Section 3: Water Supply Concepts

With knowledge of the current and planned water supply portfolios, stakeholders were asked to identify, screen, and evaluate water supply concepts. Potential water supply concepts were solicited as part of 1-on-1 interviews and during Stakeholder Workshop 1. During Stakeholder Workshop 2, a broad suite of water supply concepts was presented and as part of the vetting the stakeholder group selected the following water supply concepts to evaluate in the WSRDS:

- Rooftop Capture of Stormwater
- Distant Groundwater Banking (Outside of Service Area and Outside of Adjacent Service Areas)
- Participation in Calleguas Municipal Water District Water Resources Implementation Strategy (WRIST) Program – Local Groundwater Banking Participation in the Expanded South Oxnard Plain Brackish Water Treatment Project
- Other local/regional opportunities

These alternatives are evaluated in Sections 3.1 through 3.4 of this document.

Stakeholders are aware of other technologies and actions being studied that could, at a future date, benefit the LVMWD service area. A notable example is desalination via new desalination technology, including OceanWell. While LVMWD is participating in the study to develop the OceanWell desalination technology, LVMWD has not committed to any actions beyond studying the feasibility of new desalination technology. At this time desalination is not considered to be part of LVMWD's status quo water supply portfolio. Desalination is being studied separately from this WSRDS, but a summary is provided in Section 3.5 of this document and desalination is discussed when describing future portfolios.

Stakeholder Input

In a poll, Stakeholders "Agreed" that the study captures a wide range of water supply alternatives for developing a diversified portfolio.

3.1 Concept 1 - Rooftop Capture of Stormwater

3.1.1 Project Description

Stormwater may be captured and used onsite to reduce non-potable demand within the LVMWD service area. This concept involves small-scale stormwater capture for non-potable residential, commercial, industrial, or institutional (CII) on-site use.

3.1.2 Water Supply Characteristics

The water source for Concept 1 is stored rainwater used for outdoor irrigation. This does not result in new potable water supply but may offset demand for potable water.

3.1.3 Potential Yield

In rainwater harvesting systems, cisterns or rain barrels are used to collect runoff from impervious surfaces, such as roofs. There are many challenges to estimating yield for rooftop capture and reuse. Many studies model the potential for rainwater harvesting based on modeling, but none that directly measured the amount of water harvested and re-used were found. While many sources cite the typical amount of water that can be captured given a 1,000-square-foot roof and an inch of rainfall, there is little data on typical roof size or the infrastructure needed to store the captured water and for how long.

To approximate the yield for Concept 1, the following assumptions and simplifications were used:

- Consider only urban land uses within incorporated cities (see Table 3-1).
- Assume square footage of roofs is approximately 8 percent of the urban land cover. This does not account for LVMWD's unincorporated areas. Calculations to determine roof square footage were obtained by using the 2017 Countywide Building Ordinance (see Table 3-2).
- Annual rainfall for the urbanized portion of the LVMWD service area varies from Agoura Hills to Calabasas; as a simplifying assumption, the average rainfall for the nearest long-term rain gauge is used, 13.85 inches per year (the average for this part of Los Angeles County). As shown in Table 3-3, rainfall is not even throughout the year. Rainfall is heavily concentrated in the months of November to April; rainfall is minimal from May to October.
- Assume residents and businesses are willing to participate in rooftop capture at size and scale where permits are not needed.

Table 3-1: Land Uses of Incorporated Areas within the LVMWD Service Area

	Residential Land Use (acres)	Total Urban Land Area (acres) ¹	Residential Land Use as Percent of Urban Area
Agoura Hills	1,653.90	2,008.2	82%
Calabasas	2,045.00	3,059.0	67%
Hidden Hills	911.85	940.0	97%
Westlake Village	873.46	1,334.7	65%
Totals	5,484.21	7,341.9	75%

Sources:

City of Agoura Hills 2035 General Plan Land Use Element
City of Calabasas 2030 General Plan 2021
City of Hidden Hills General Plan 1995
City of Westlake Village General Plan 2020

Notes:

¹ Excludes non-urban areas such as agricultural uses and open space. Also excludes not yet developed urban land.

Table 3-2: Building Envelope of Incorporated Areas within the LVMWD Service Area

Urban Area	Building Envelope as Percent of Land Area
Agoura Hills	10%
Calabasas	7%
Hidden Hills	10%
Westlake Village	9%
Average (Weighted for total land area)	8%
Source: GIS Analysis of 2017 Los Angeles Countywide Building Ordinance	

Table 3-3: Monthly Rainfall Averages LVMWD Service Area (inches)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
3.02	3.59	2.66	0.61	0.20	0.04	0.08	0.21	0.06	0.00	0.57	2.81	13.85
Source: National Weather Service, Thousand Oaks Gage (US1CAVT0001) January 2009 to December 2024.												

In the County of Los Angeles and most cities, rainwater cisterns for landscape or garden irrigation may be constructed without permits, if they meet the following specifications:

- Are free-standing outdoor water tanks supported directly upon existing level ground
- Must not exceed 5 feet in height
- The ratio of height to width does not exceed 1.5 to 1
- Must be manufactured of UV-resistant heavy duty molded plastic or better. Sidewalls must be a minimum 3/16 inch thick.
- Must be equipped with a screened inlet of 18x16 stainless steel mesh
- Connections and openings must be sealed, plugged, or screened to prevent mosquitoes from entering the device.
- Must include a gravity flow hose bib near the bottom to discharge flows
- Must be labeled at point of discharge in English and Spanish “Not Safe for Drinking”

In evaluating the potential for rooftop capture and reuse, it was assumed the yield would be the lesser of the amount of rooftop capture, the amount of onsite storage, or the irrigation demand.

3.1.3.1 Theoretical Maximum Rooftop Capture

The total potential rooftop capture is estimated in Table 3-4 and is based on urban land uses in the incorporated areas of the LVMWD service area and average rainfall.

Table 3-4: Estimated Potential Rooftop Capture LVMWD Service Area

Total Potential Rooftop Capture	
Urban Land Uses Incorporated Areas (acres)	7,342
Urban Land Uses Incorporated Areas (sf)	319,812,293
Assumed roof area (8%) (sf)	25,584,983
Potential rain capture, assuming 1.15 ft rain annually (ft ³)	29,422,730
Potential rain capture (acre feet)	675

Table 3-4 illustrates the potential water capture from an extensive stormwater capture and onsite reuse program. Table 3-4 assumes that offering rebates in sufficient quantities would result in nearly all urban land uses in the LVMWD service area participating in rooftop stormwater capture. This is a “theoretical ceiling” and is not achievable but rather provides a measure of the magnitude of stormwater that could be captured from rooftops. A limitation of Table 3-4 is that it does not account for the need to store the water, the actual land use, and the likely end user of the water. As demonstrated in the following paragraphs, limitations in irrigation demand and on storage significantly decrease the yield from rooftop stormwater capture.

3.1.3.1.1 Residential Rooftop Capture, On-Site Storage, and Irrigation Demand

3.1.3.1.1.1 Rooftop Capture

As shown in Table 3-1, residential land uses are the dominant land uses, and it would be necessary to have residential uses participate to achieve the theoretical maximum benefit from rooftop capture and reuse. Residential rooftop sizes vary but are expected to be between 850 square feet and 5,000 square feet. Given these sizes and the rainfall estimates, a single home could capture between 7,300 and 43,000 gallons annually if average rainfall was received (see Table 3-5).

3.1.3.1.1.2 Onsite Storage

The County of Los Angeles does not have a strict maximum size for cisterns and rain barrels. However, a permit is needed for water storage greater than 5,000 gallons. To increase the likelihood of participation, it is assumed cisterns that do not require a permit would be the focus of any rebate program for onsite stormwater capture and reuse. This means onsite storage is likely limited to 5,000 gallons per property/rooftop.

Table 3-5: Estimated Potential Residential Rooftop Capture LVMWD Service Area

	Small Roof	Large Roof
Roof Size (sf)	850	5,000
Potential rain capture, assuming 1.15 ft rain annually (ft ³)	978	5,750
Potential rain capture (gallons)	7,312	43,013

3.1.3.1.1.3 Irrigation Demand

Per the existing Model Water Efficient Landscape Ordinance (MWELO) water use efficiency standards already exist in the LVMWD service area. In the future, with implementation of the regulation “Making Water Conservation a California Way of Life,” even stricter outdoor water use standards will apply to outdoor water use in the LVMWD service area. As part of its reporting to the State of California in 2024, LVMWD estimated that allowable outdoor water use by residences would be limited to approximately 8,700 AFY. By 2040, regulations will set the maximum applied outdoor water allowance for residential uses at 55 percent of reference evapotranspiration for residential projects and 45 percent of reference evapotranspiration for non-residential projects. Table 3-7 provides an estimate of landscape irrigation demands from large and small residences relative to potential rooftop capture.

Table 3-6 demonstrates that:

- Rooftop capture and reuse has lesser benefits in the rainy months as irrigation demand can be met by rainfall. This is particularly true for smaller residences.
- The benefit of rooftop capture and reuse for irrigation in the dry months relies on water stored in the rainy months.
- The benefit from rooftop capture is limited by the available storage (assumed to be 5,000 gallons).

Table 3-6 illustrates that the benefit of a rooftop capture and reuse system with a 5,000-gallon cistern is the storage and use of water April through October (when there is generally some rainfall but also some irrigation demand not met by rainfall alone) and storage of water November through March when irrigation demand is met by rainfall. As shown in Table 3-6, for the assumed small residence the benefit would be approximately 5,600 gallons per year; for the large residences the benefit could be as high as 8,837 gallons per year. So as not to overestimate the project benefit, the analysis assumes that the average household could capture and reuse somewhere between 5,300 gallons and 8,800 gallons, about 7,200 gallons per year.

3.1.3.1.2 Commercial Rooftop Capture, On-Site Storage, and Irrigation Demand

Commercial, industrial, and institutional (CII) land use is relatively minor compared to residential uses. As shown in Table 3-1, residential uses make up approximately 75 percent of “urban” uses by acreage. In addition, CII water use is relatively minor; historically 1,700 AFY (LVMWD 2021). CII buildings vary widely in size, and it is difficult to establish a “standard” rooftop size for these businesses. For simplicity, this analysis assumes that LVMWDs current CII customers with installed dedicated irrigation meters: (1) have significant irrigation demands, (2) have staff dedicated to managing the building and landscaping, and (3) are able to install and benefit from a cistern. Based on rainfall patterns it’s possible that a cistern at a CII business could be filled and beneficially used four times during the year, for a benefit of about 20,000 gallons per CII entity per year.

Based on LVMWD reporting, there are about 852 CII customers with dedicated irrigation meters (LVMWD FY24 Reporting on Urban Water Use Objective); if each saved 20,000 gallons per year through use of cisterns, the CII rooftop capture benefit would be 17,040,000 gallons per year or about 52 AFY.

3.1.3.2 Theoretical Maximum Yield

It is estimated that there are 18,990 housing units in the LVMWD service area (LVMWD billing data provided by District July 2025). In total, it is estimated that if all these residential users participated in rooftop capture and reuse, it could offset 136,728,000 gallons or 419 AFY (see Table 3-6). Based on LVMWD reporting, there are about 852 CII customers with dedicated irrigation meters (LVMWD FY24 Reporting on Urban Water Use Objective). When added to the potential benefit of rooftop capture from CII users, the total estimated benefit is 153,768,000 gallons or about 470 AFY. It is important to note that the benefit of this concept is only in regard to irrigation water, while there may be a decrease in demand, there is no direct benefit to potable water supplies. For those CII parcels that use reclaimed water for irrigation, offsetting reclaimed water with captured stormwater makes more reclaimed water available to the Pure Water Project which in turn does result in more potable water. It should be stressed that this is the theoretical maximum yield and would require all households to participate as well as many CII customers.

Table 3-6: Estimated Maximum Urban Rooftop Capture Benefits After Accounting for Storage and Irrigation Constraints

Use	Number	Potential Onsite Capture and Reuse (gallons) ^{1,2}
Housing (single-family and multi-family)	18,990	136,728,000
CII Uses with Dedicated Irrigation Meters	852	17,040,000
Total Estimated Annual Storage and Reuse (gallons)		153,768,000
Total Estimated Annual Storage and Reuse (AF)		470
Notes:		
1 Assumes yield is 7,200 gallons per household per year		
2 Assumes benefit/yield for institutional uses is 20,000 gallons per year		

3.1.3.2.1 Potential Yield During Drought

Concept 1 does not enhance the water supply portfolio available to LVMWD, rather, in some situations, decreases outdoor water demands. In the situation of a local drought with reduced rainfall, Concept 1 would provide little to no benefit. In the situation where drought affected the imported water system but not local rainfall, the outdoor water demand would be offset as described above.

Table 3-7: Comparison of Potential Residential Rooftop Capture to Irrigation Demand

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Small Residence												
Irrigation Demand (gallons/month)	1,579	2,037	2,932	3,710	4,285	4,801	5,412	4,961	4,147	2,932	1,964	1,353
Irrigation Demand Met by Rainfall (gallons/month)	3,007	3,579	2,655	612	200	41	76	205	60	-	569	2,800
Outstanding Irrigation Demand (gallons/month)	-	-	277	3,098	4,085	4,761	5,336	4,756	4,086	2,932	1,396	-
Potential Rooftop Capture (gallons/month) ¹	1,598	1,901	1,410	325	106	22	40	109	32	-	302	1,487
Water in Cistern Storage, Beginning of Month (gallons) ²	1,789	3,387	5,000	4,723	1,902	106	22	40	109	32	-	302
Avail Cistern Storage SpaceBeginning of Month (gallons)	3,211	1,613	-	277	3,098	4,894	4,978	4,960	4,891	4,968	5,000	4,698
Water Taken Out of Storage During Month (gallons) ²	-	-	277	3,098	1,902	106	22	40	109	32	-	-
Water Added to Storage During Month (gallons) ²	1,598	1,613	-	277	106	22	40	109	32	-	302	1,487
Water in Cistern Storage, End of Month (gallons) ³	3,387	5,000	4,723	1,902	106	22	40	109	32	-	302	1,789
Benefit of Cistern (gallons) ⁴	-	-	277	3,098	1,902	106	22	40	109	32	-	-
Annual Benefit of Cistern (gallons) ⁵	5,586											
Large Residence												
Irrigation Demand (gallons/month)	19,733	25,461	36,646	46,376	53,560	60,016	67,654	62,017	51,832	36,646	24,552	16,914
Irrigation Demand Met by Rainfall (gallons/month)	37,590	44,735	33,187	7,652	2,501	506	951	2,564	756	-	7,106	34,995
Outstanding Irrigation Demand (gallons/month)	-	-	3,459	38,724	51,058	59,510	66,704	59,453	51,076	36,646	17,446	-
Rooftop Capture (gallons/month) ¹	5,000	5,000	5,000	1,913	625	127	238	641	189	-	1,777	5,000
Water in Cistern Storage, Beginning of Month (gallons) ²	5,000	5,000	5,000	1,541	1,913	625	127	238	641	293	-	1,777
Avail Cistern Storage SpaceBeginning of Month (gallons)	-	-	-	3,459	3,087	4,375	4,873	4,762	4,359	4,707	5,000	3,223
Water Taken Out of Storage During Month (gallons) ²	-	-	3,459	1,541	1,913	625	127	238	641	293	-	-
Water Added to Storage During Month (gallons) ²	-	-	-	1,913	625	127	238	641	189	-	1,777	3,223
Water in Cistern Storage, End of Month (gallons) ³	5,000	5,000	1,541	1,913	625	127	238	641	189	-	1,777	5,000
Benefit of Cistern (gallons) ⁴	-	-	3,459	1,541	1,913	625	127	238	641	293	-	-
Annual Benefit of Cistern (gallons) ⁵	8,837											
Assumptions:												
Small residence roof size (sf)	850											
Small residence landscape area (sf)	1600											
Large residence roof size (sf)	5000											
Large residence landscape area (sf)	20000											
Percent of ETo Consistent with Regulation	55%											
Assumed irrigation efficiency	75%											

Notes:

1. Assumes lesser of rooftop capture or on-site storage (5,000 gallons).
2. Assumes cistern is filled (5,000 gallons) by end of February. For each month after February, if outstanding irrigation demand is greater than rooftop capture, available water is taken from storage and cistern storage decreases. For each month where outstanding irrigation demand is less than rooftop capture, water can go into cistern storage up to the available storage space.
3. Water in cistern storage at end of month less any water taken out of storage plus any water added to storage.
4. Project benefit is the water taken from cistern storage in that month.

3.1.3.2.2 Potential Yield During Emergencies

Concept 1 does not enhance the water supply portfolio available to LVMWD in an emergency, rather, in some situations, decreases outdoor water demands. As described above, Concept 1 is unlikely to provide benefit during a local drought. Rooftop capture of stormwater could provide benefit during other types of emergencies. Utilizing the water from 5,000-gallon cisterns for fire suppression is another supplemental benefit; having on-site water storage will aid firefighting. Filling a cistern ahead of a wildfire event reduces demands on the LVMWD system when the system is under strain, such as during power outages and during firefighting operations. LVMWD staff have noted that residents are starting to purchase and install small pump and spray units that tap into their swimming pools and other on-site storage that can be quickly deployed at first signs of a wildfire to wet down structures and surrounding vegetation.

3.1.4 Infrastructure Needed

Installing the infrastructure needed for rooftop capture could not be undertaken by LVMWD; however, LVMWD could facilitate the installation of the infrastructure needed by offering substantial rebates.

To estimate the rebate needed to entice widespread implementation of rooftop capture and reuse, a literature review was performed. The SoCalWaterSmart program offers rebates for cisterns. The program provides a rebate up to \$350 for cisterns greater than 1,000 gallons. Based on LVMWD records, no customers in the LVMWD service area have received rebates for installing cisterns and 327 rebates for rain barrels have been provided – just a fraction of the estimated 18,990 residences that could utilize rainwater harvesting devices. The City of Santa Monica offers rebates of up to \$2,000 for cisterns greater than 500 gallons, but no data on the number of rebates or estimated water savings could be acquired. A pilot cistern program was being undertaken by the Greater LA Water Collaborative, with participation by the Los Angeles Department of Water and Power, LA Bureau of Sanitation, and the City of Los Angeles Department of Public Works. The collaborative installed aboveground and belowground rainwater harvest and tank systems at six residential sites across Los Angeles. These six sites were monitored during the 2016 rainy season. Test results from these six sites found that the systems reliably harvested rainwater, and yield was greatly improved with real-time controls. The study did find administrative hurdles to widespread execution such as permitting and lack of standardized local guidance (Tree People 2016 and 2019).

The literature review confirmed that the rebate needed to encourage widespread adoption of cisterns is unknown. It is assumed that the rebate and any water savings would have to compensate for the cost of installing and operating the system. Again, generalized data on tank costs and installation is not readily found. High-density polyethylene (HDPE) is commonly used for water tank manufacturing and tends to be more economical than fiberglass tanks or other options. Outreach to vendors found that a 5,000 gallon above-ground HDPE tank would cost between \$2,500 to \$4,000 but this would not include shipping. Installation costs vary based on site conditions, but they are estimated to be between \$9,000 and \$20,000 per cistern. The US EPA anticipates that costs range from \$1.96 to \$3.91 per gallon with installation (EPA 2013). Given these estimates, to install an above ground 5,000-gallon cistern would cost roughly between \$9,800 and \$19,600. For the purposes of this analysis, the following is assumed: \$4000 for the cistern and \$9,800 for installation, for an initial residential cistern cost of \$13,800.

Cisterns are assumed to have a useful life of 20 years and therefore would need to be replaced in year 21 to ensure long-term benefits.

Literature review on costs to maintain a cistern varies wildly. The City of Thousand Oaks in its 2016 study, *Thousand Oaks Groundwater and Reclaimed Water Study*, estimated that maintenance of cisterns was about 5 percent of capital costs per year or about \$200 per year. In its 2009 study, *BMP and LID Whole-Life Cost Model*, the Water Environment Research Foundation (WERF) estimated that yearly maintenance of a cistern system involved inspecting the system, removing debris, flushing, and replacing filters cost \$1,177³.

Rates billed for water volume used in the LVMWD service area are currently \$5.69 per hundred cubic feet (HCF) or 748 gallons (community rate, 2025 efficient outdoor rate). If a 5,000-gallon cistern saved a resident 7,200 gallons a year (approximately 9.6 HCF), the savings on that resident's water bill would be \$55 annually. If a rooftop capture and reuse system saved a CII user approximately 20,000 gallons (27 HCF), the cost savings would be \$5.40/HCF for a total of savings of about \$146 per year.

Because the cost savings are less than the anticipated maintenance costs, it is assumed rebates would have to be provided to fund the initial purchase and installation of the rooftop capture and reuse system and maintenance costs for the life of the system; an estimated \$17,800. As noted, LVMWD and Metropolitan, through the SoCalWater\$mart program have offered cistern rebates in the past and received a limited response; it is anticipated that an intensive outreach effort would be needed to achieve a high level of participation in a rooftop capture and reuse program. Outreach and marketing of the potential rooftop capture and reuse rebate programs have been included in the estimated costs.

Table 3-8 summarizes potential water savings and costs from rooftop capture and reuse.

3.1.5 Timeline to Implement

Once budgeted, LVMWD could offer rebates almost immediately. However, the time required for the population to select a cistern or cistern vendor, have the cistern manufactured and shipped and then installed is assumed to be several years. For the purposes of this analysis, a 10-year implementation period is assumed.

Table 3-8: Potential Water Savings and Costs from Rooftop Capture and Reuse

Water Savings	
Estimated Households that Could Use Rooftop Capture and Reuse	18,990
Estimated Water Savings Per Household (AFY)	0.02
Estimated Total Household Water Savings from Rooftop Capture and Reuse (AFY)	355
Estimated Number of Institutional Users that Could Use Rooftop Capture and Reuse	852
Estimated Water Savings Per Institution (AFY)	0.06
Estimated Total Institutional Water Savings from Rooftop Capture and Reuse (AFY)	52
Total Annual Water Savings Households and Institutional Rooftop Capture and Reuse (AFY)	407
Total Water Savings Assuming Cisterns Operate for 20 years (AF)	8,140
Costs (in 2024 dollars)	
<u>Purchase, Installation, Maintenance and Imported Water Savings Years 0-20</u>	
<u>Initial Costs</u>	
Purchase and Installation - Initial per Site	\$13,800
20 Years of Maintenance (\$200 * 20 years) per Site	\$4,000
Theoretical Maximum Rooftop Capture and Reuse Sites (18,990 homes, 852 CII sites)	19,842
Outreach Activities (Years 0-9 for Initial Program Implementation, full time, \$95,000 salary)	\$950,000
Anticipated Rebate and Outreach Costs Covering Years 0-20	\$354,137,600
<u>Annual Costs</u>	
Annual Avoided Water Purchase ¹	
Year 0	-\$73,144
Year 1	-\$146,288
Year 2	-\$219,432
Year 3	-\$292,576
Year 4	-\$365,720
Year 5	-\$438,864
Year 6	-\$512,008
Year 7	-\$585,152
Year 8	-\$658,296
Year 9	-\$731,440
Years 10 - 20	-\$7,314,397
Cumulative Annual Costs Years 0-20	-\$11,337,316
Net Cost Theoretical Maximum Rooftop Capture and Reuse	\$342,800,284

1. Assumes implementation occurs over ten years with water savings accumulating in increments of \$59,270 until full annual savings of \$592,702 achieved. Assumes LVMWD would purchase less Full Service Metropolitan Tier 1 water at a savings of \$1,550/AF.

3.1.6 Cost

Costs for Concept 1 are based on the anticipated rebate amount plus outreach costs (see Table 3-9). These costs assume cisterns are not replaced at the end of their useful life, and therefore benefits are limited to 20 years. The present value calculation for Concept 1 is detailed in Table 3-10.

Table 3-9: Cost Elements Concept 1, On-Site Stormwater Capture and Reuse

Initial Costs ¹	\$354,137,600
Annual Costs	Varies depending on year, for details see Table 3-8
Use Costs ²	\$0
Present Value per AF	\$49,812
¹ Covers the initial rebates offered by LVMWD and outreach activities years 0-9.	
² Maintenance costs captured in initial costs as part of rebate	

Table 3-10: Present Value for Concept 1, On-Site Stormwater Capture and Reuse

Base Year:	2024	Construction:	Years 0-9
Soft Costs	N/A	Project Operates:	Years 1-29
		Loan Payments:	Years 0-29
Amortized Loan Rate	4.6%	Bloomberg Municipal Bond 30 Year Yield Index Fund	
Real Discount Rate:	2.1%	Office of Management and Budget Circular A-94, updated January 2025.	

Total Estimated Yield (AF)			9400	Present Value Per AF			49,812
Year	Initial Costs (\$)	Annual Costs (\$) **	Production Costs (\$)	Total Costs (\$)	Cost Factor	Present Value (\$)	
0	21,894,776	0	0	21,894,776	0	0	
1	21,894,776	-73,144	0	21,821,632	1.000	21,821,632	
2	21,894,776	-146,288	0	21,748,488	0.979	21,291,769	
3	21,894,776	-219,432	0	21,675,344	0.958	20,774,538	
4	21,894,776	-292,576	0	21,602,200	0.938	20,269,641	
5	21,894,776	-365,720	0	21,529,056	0.919	19,776,788	
6	21,894,776	-438,864	0	21,455,912	0.899	19,295,695	
7	21,894,776	-512,008	0	21,382,768	0.880	18,826,087	
8	21,894,776	-585,152	0	21,309,624	0.862	18,367,694	
9	21,894,776	-658,296	0	21,236,480	0.844	17,920,250	
10	21,894,776	-731,440	0	21,163,336	0.826	17,483,499	
11	21,894,776	-731,440	0	21,163,336	0.809	17,116,341	
12	21,894,776	-731,440	0	21,163,336	0.792	16,756,902	
13	21,894,776	-731,440	0	21,163,336	0.775	16,405,007	
14	21,894,776	-731,440	0	21,163,336	0.759	16,060,502	
15	21,894,776	-731,440	0	21,163,336	0.743	15,723,232	
16	21,894,776	-731,440	0	21,163,336	0.727	15,393,044	
17	21,894,776	-731,440	0	21,163,336	0.712	15,069,790	
18	21,894,776	-731,440	0	21,163,336	0.697	14,753,324	
19	21,894,776	-731,440	0	21,163,336	0.682	14,443,504	
20	21,894,776	-731,440	0	21,163,336	0.668	14,140,191	
21	21,894,776	-658,296	0	21,236,480	0.654	13,891,091	
22	21,894,776	-585,152	0	21,309,624	0.640	13,646,218	
23	21,894,776	-512,008	0	21,382,768	0.627	13,405,504	
24	21,894,776	-438,864	0	21,455,912	0.614	13,168,881	
25	21,894,776	-365,720	0	21,529,056	0.601	12,936,285	
26	21,894,776	-292,576	0	21,602,200	0.588	12,707,651	
27	21,894,776	-219,432	0	21,675,344	0.576	12,482,914	
28	21,894,776	-146,288	0	21,748,488	0.564	12,262,012	
29	21,894,776	-73,144	0	21,821,632	0.552	12,044,883	
30	0	0	0	0	0.540	0	
31	0	0	0	0	0.529	0	
32	0	0	0	0	0.518	0	
33	0	0	0	0	0.507	0	
34	0	0	0	0	0.496	0	
35	0	0	0	0	0.486	0	
36	0	0	0	0	0.476	0	
37	0	0	0	0	0.466	0	
38	0	0	0	0	0.456	0	
39	0	0	0	0	0.446	0	
40	0	0	0	0	0.437	0	
41	0	0	0	0	0.428	0	
656,843,270		-14,628,795	0	642,214,475		468,234,875	

** Assumes implementation occurs over ten years with water savings accumulating in increments of \$73,144 until full annual savings of \$731,144 achieved. Savings then wane as cisterns approach end of life.

3.2 Concept 2 – Groundwater Banking Outside of Los Angeles and Ventura Counties (Distant Groundwater Banking)

The stakeholder group guiding development of this study desired looking at both local (Los Angeles and Ventura counties) and distant groundwater banking. The project in Concept 2 is to undertake groundwater banking outside of Los Angeles or Ventura Counties. Groundwater banking in its simplest form is the storage of water in a groundwater basin for later extraction and use. For simplicity Concept 2 is referred to as “Distant Bank”.

There are many variables to a groundwater banking program including:

Groundwater management framework – this is the tracking of inputs and extractions from the groundwater aquifer, as well as the legal framework, that create a reasonable expectation that water stored can be recovered later. Typically, an entity or a consortium has developed a monitoring system and accounting system as well as a funding mechanism to do the necessary accounting and fund the maintenance of the needed infrastructure. The management framework must also make sure that the banking and extraction are consistent with other existing rights to recharge water and groundwater.

Sources of water for recharge – the recharged water could be- local surface water or imported water or stormwater or a mix thereof. In some cases, groundwater recharge is accomplished “in-lieu,” meaning surface water is delivered to users that overlie the relevant groundwater basin and those users forgo groundwater pumping – leaving groundwater in storage. Under certain conditions, recycled water can be used for groundwater recharge. An important factor here is that Metropolitan controls SWP supplies that it then delivers to LVMWD. Metropolitan dictates how, when, and where its supplies are delivered. LVMWD is not at liberty to order a certain amount of Metropolitan’s supplies to be delivered to a groundwater bank. Metropolitan undertakes groundwater storage on behalf of its retailers. In managing its water resources, Metropolitan must consider many factors including a need to have its water available in its service area for reliability reasons, concern that if member agencies had the ability to individually bank and stockpile water, those member agencies would have the advantage of “older” low-cost water and this would create inequity among members as well as erode the rate equity among member agencies. This means LVMWD would have to acquire a “marketable” supply from an agency that is not Metropolitan. This could be accomplished by buying water from another agency or buying land with associated water rights. As an example, LVMWD could buy water from an agricultural district or landowner in the Central Valley or could buy the otherwise unused SWP allocation of Casitas Municipal Water District.

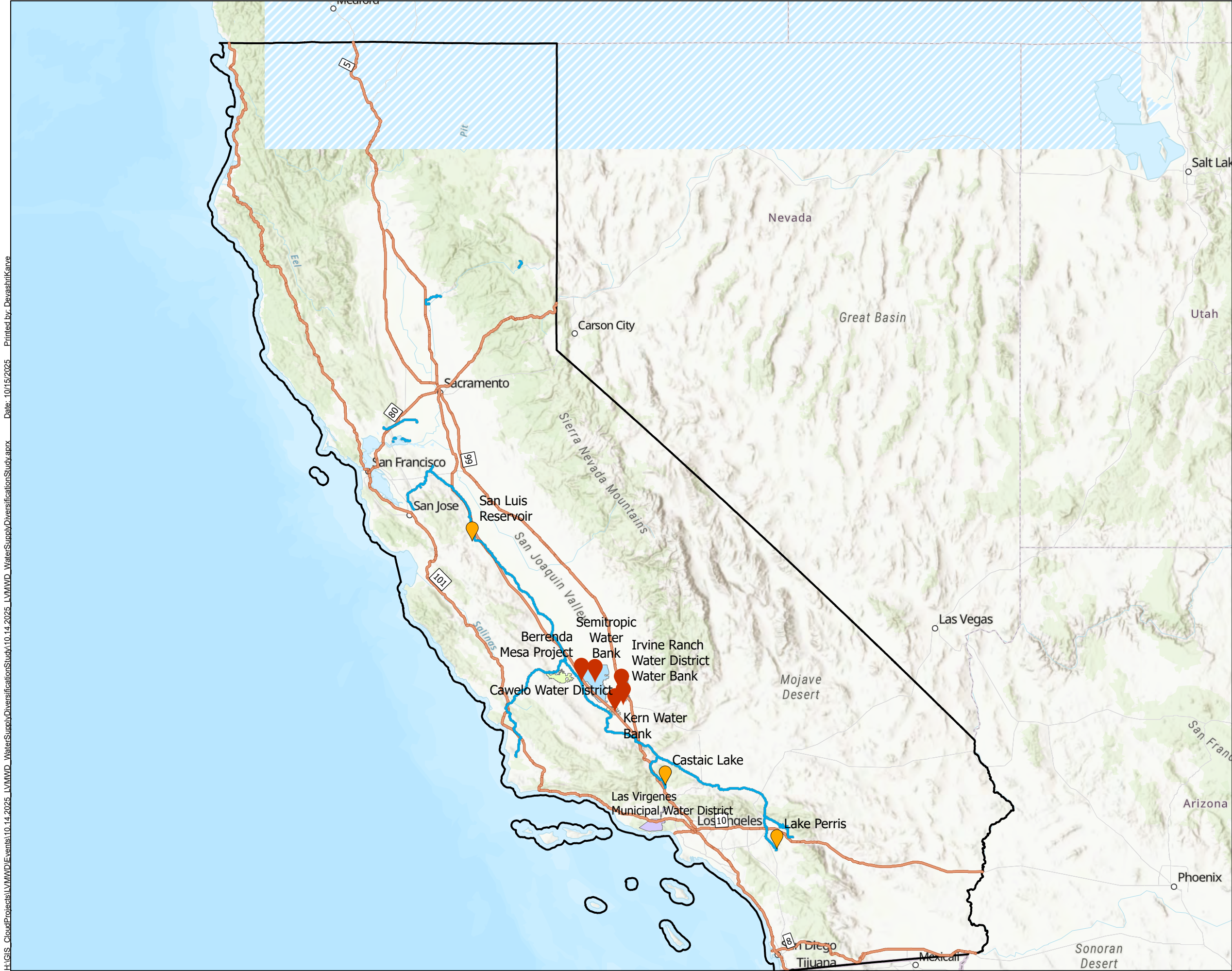
Methods for groundwater recharge – there must be a method to move the source of recharge water to the groundwater basin where storage will occur. Purposeful groundwater recharge can be accomplished in a couple of ways. One method involves spreading water over the ground surface and letting it infiltrate to the groundwater basin. This method has the advantage of in-situ treatment. The efficacy of this method depends on local geology. A similar method directs water into unlined canals and riverbeds, where it filters through to the groundwater basin. Water can also be purposefully injected into the groundwater basin using wells. A final method is “in-lieu” recharge, essentially taking actions so that water that would have otherwise been withdrawn from a groundwater basin stays in the groundwater basin.

Methods for recovery and use of the stored water – there are two main methods to “recover” stored water, exchange or pump-back. In the exchange system, an entity with rights to surface water utilizes the stored groundwater and directs its allocation of surface water to the “depositor”. This system of groundwater recovery requires that there be participants overlying the groundwater basin that also have rights and access to a regional water system. The exchange system can be problematic in years where a depositor has stored water available, but there is little or no imported water to carry out the exchange. For this reason, water banks have developed pump-back systems. In the pump-back system the banking manager has arranged for infrastructure to both extract the stored water and move it to a delivery system. Commonly the pump-back system puts water into a regional water system, such as the SWP. Putting the recovered water into a regional water system means the participants of the regional water system can also participate in the groundwater bank and the water recovered may be exchanged with other water agencies that use the regional water system. Through an agreement with DWR, water could be directed to the SWP system, and through an agreement with Metropolitan, treated and conveyed to LVMWD.

WestWater Research, a firm specializing in water markets, has identified more than 11 operating water banks, six water banks in development, and four proposed water banks within California (WestWater Research 2024). These water banks are operated by both public agencies and private owners and are in Kern, Kings, Tulare, Fresno, Los Angeles, and San Bernardino Counties. This analysis limited review to a few groundwater banking opportunities. All opportunities considered had to: (a) include a bank south of the San Joaquin Delta and (b) have a connection to the State Water Project system and specifically the West Branch of the California Aqueduct. A bank south of the Delta is desirable as it avoids the risk that a major earthquake or Delta pumping restrictions could have on the ability to move water to Southern California. Given LVMWD’s connection to the Metropolitan system, only water entering the West Branch of the California Aqueduct could be physically conveyed to LVMWD, hence this analysis is limited to opportunities utilizing the West Branch California Aqueduct. A connection to the West Branch of the California Aqueduct and the SWP means that water available to LVMWD through that regional system could be sent to storage and then exchanged or pumped back to LVMWD through the SWP and Metropolitan systems. This writeup looks at three different groundwater banking programs outside of Los Angeles and Ventura counties (see also Figure 3-1):

- Irvine Ranch Water District Water Bank
- Semitropic Water Bank
- Participation in Silvertip Water Reliability Program

So that these different banks can be compared, it is assumed that the “target” of each program would be to return approximately 4,000 AF to LVMWD during a drought year when LVMWD’s wholesale water agency anticipates not meeting normal LVMWD demands.

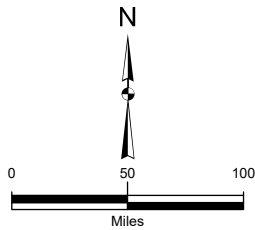


Legend

- Berrenda Mesa Water District
- Cawelo Water District
- Kern Water Bank
- Las Virgenes Municipal Water District
- Semitropic Water Storage District
- Highways
- California State Boundary
- Reservoirs
- California Aqueduct

Notes:

1. Locations are approximate.



 Kennedy Jenks

Lase Virgenes Municipal Water District,
Los Angeles County, CA

Groundwater Banking Locations

2444217*00

Figure 202

3.2.1 Concept 2A – Groundwater Banking Partnership with Irvine Ranch Water District

3.2.1.1 Project Description

Irvine Ranch Water District is a partner with the Rosedale-Rio Bravo Water Storage District (RRB) in both the Strand Ranch Integrated Banking Project and the Stockdale Integrated Banking Project (collectively called the IRWD Water Bank). The two districts have jointly constructed 761 acres of groundwater recharge ponds that overlie Kern County Groundwater Basin (IRWD 2025). As part of the partnership, IRWD can store up to 50,000 AF and can restore up to 17,500 AF in any single year. IRWD has “second” priority for use of recharge facilities but “first” priority for use of the recovery facilities. RRB can also store water, separate from the 50,000 AF allocated to IRWD. RRB manages the water bank and maintains water bank facilities. IRWD has entered into agreements with the Central Coast Water Authority and Buena Vista Water Storage District to store water in the IRWD Water Bank. In addition to the IRWD Water Bank, IRWD has purchased approximately 890 acres of land in the Dudley Ridge Water District. IRWD takes water that is surplus to farming operations in the Dudley Ridge area and stores it for later use – half the stored water is dedicated to future use in the IRWD service area and half dedicated to agricultural operations in the Dudley Ridge area. IRWD, again as a partner with RRB, is actively undertaking a project to construct an additional 1,300 acres of recharge basins and 12 recovery wells in the Kern Fan Area. These new facilities would be in generally the same area as the existing IRWD Water Bank but with some facilities on the western side of the RRB service area.

IRWD and LVMWD have entered into a pilot agreement whereby IRWD procures and stores water for LVMWD in its Water Bank. This agreement could be extended or expanded to gain more banking to benefit LVMWD.

3.2.1.2 Water Supply Characteristics

IRWD would purchase and then store water on LVMWD’s behalf in the IRWD Water Bank. The water purchased and stored would be SWP Table A water from the Dudley Ridge Water District and others. Additional water supply characteristics:

- Water Recharged: Marketable SWP Water
- Location of Recharge: IRWD Water Bank, Kern County, Kern Subbasin
- Recovery Mechanism: Water would be recovered through IRWD extraction wells and placed in the existing Cross Valley Canal for delivery to the California Aqueduct. Water would then be moved through the Metropolitan system to LVMWD through a coordinated operations agreement between Metropolitan, IRWD, and Metropolitan Water District of Orange County. Under this agreement, water moved to LVMWD would be considered “Extraordinary Supply” only for use during Metropolitan allocation periods. LVMWD would be allowed to recover one-third of its stored water, after losses, in any year. LVMWD’s use of the water bank wells would be second priority to use of the wells by IRWD.
- Losses and Leave-Behind Provisions: During recharge, it is assumed 15 percent of the water is lost and 85 percent recoverable. Of the amount arriving at the recharge basin,

the IRWD agreement requires half to be dedicated to IRWD and the other half goes to storage in the name of LVMWD. After 10 years, under the agreement LVMWD transfers 10% of water remaining in storage to the IRWD account. Ten percent of LVMWD's water in storage is transferred Years 11-20 until LVMWD's account is depleted. In addition, there is assumed to be a 2 percent loss of water entering the Cross Valley Canal (CVC) that moves water from the bank to the California Aqueduct.

It is necessary to mention that there is some controversy and risk to utilizing the Kern Subbasin for groundwater banking. The Kern Subbasin Groundwater Sustainability Plan (GSP) was not approved by the State Water Resources Control Board (SWRCB) until revised. In hearings and written reviews of the Kern Subbasin GSP, the SWRCB had raised concerns about the lack of clarity on banking impacts and lack of robust oversight and proof that groundwater banks only recover previously stored water. As part of the revised plan the subbasin agencies substantially addressed deficiencies in the prior plan and included mitigation for domestic wells that are impacted, such as by contaminants, by groundwater management actions. The revised GSP was approved in September 2025 (SWRCB 2025).

3.2.1.3 Potential Yield

For the purposes of comparison, this Concept is evaluating water banking options that could result in approximately 4,000 AFY yield in a dry year from present to 2065 (a 40-year period). The agreement with IRWD is assumed to be structured as two agreements. The first agreement is assumed to cover Year 1 through Year 20; the second agreement Year 21 to Year 40. For a total of 57,620 AF purchased over six years (~9,600 AFY), there would be losses associated with recharge and the leave behind with IRWD. In addition, IRWD has specified that no more than one-third of stored water (after losses) can be recovered in any year. Table 3-11 below estimates potential maximum yield, anticipated yield, and total yield over the cumulative 40-year term of two consecutive agreements. The yield calculations assume:

- There is a 15 percent loss during recharge
- 50 percent required leave behind for IRWD (after accounting for recharge losses)
- For each year after the tenth year of a given agreement (Years 11-20, Years 31 to 40), 10 percent of the amount in storage is 'debited' to IRWD
- To get the maximum potential yield, LVMWD would need to withdraw all stored water before Year 11 under the first agreement and Year 31 under the second agreement. LVMWD can only take water out of storage when Metropolitan has implemented their Water Supply Allocation Plan (WSAP).
- Based on limited historical data, Metropolitan has implemented its WSAP five times in 16 years. Should that pattern continue, it is likely that some stored water would revert to IRWD. In evaluating scenarios the likely 40-year yield (water stored then delivered to the LVMWD service area) is 19,600 AF.

3.2.1.4 Infrastructure Needed

The groundwater banking partnership with Irvine Ranch Water District relies on existing facilities. The water to be procured for storage would be delivered to recharge using existing SWP facilities. The water would be recharged and recovered using existing IRWD facilities.

Recovered water could be delivered to LVMWD through an exchange for SWP water or the water would be conveyed to the CVC, California Aqueduct, and Metropolitan system. This project would not involve new construction or infrastructure.

Table 3-11: Potential Annual and Total Yield Banking Partnership IRWD Water Bank

Annual Yield	
57,620 AF	Water Purchased
- 8,643 AF	Water Losses During Recharge (15%)
- 24,488 AF	Leave Behind for IRWD (50%)
12,244 AF	Maximum Water Stored for LVMWD in either the first or second storage agreement
19,600 AF	Anticipated Yield over 40 Years
4,000 AF	Maximum Annual Yield (1/3 of what is in storage less losses in CVC canal)

3.2.1.5 Timeline to Implement

Activities in this process include finding and purchasing marketable water, negotiating terms between LVMWD and IRWD, getting board approval for the related expenses, then moving water to storage. It is assumed that LVMWD would acquire the needed marketable water over the first three years of each agreement (Years 1-3, Year 21 to 23). Alternatively, water could be purchased over a longer period of time (e.g. 10 years) to soften budget and rate impacts to customers.

3.2.1.6 Costs

There are many cost components to participating in the IRWD Water Bank as follows.

- Cost to purchase recharge water. For the purposes of this analysis the cost to purchase recharge water is the same as in the existing IRWD-LVMWD agreement, \$400/AF.
- Cost to recharge water. This cost covers RRB's maintenance of the recharge area and is based on the entire amount of water recharged including water assumed to be lost to evaporation. This is assumed to be the same as in the existing IRWD-LVMWD agreement, \$38/AF.
- KCWA wheeling fees. This cost applies to all water sent to recharge and is assumed to be \$5/AF recharged.
- KCWA transaction fees. This is assumed to be the same as in the existing IRWD-LVMWD agreement, \$1,500 per transaction at time of recharge and an additional \$1500 at each instance of withdrawal or recovery.
- Recovery costs. This is the estimated cost for pumping and conveying the water. This is assumed to be the same as in the existing IRWD-LVMWD agreement, \$184/AF.
- Metropolitan treatment and conveyance fees. Under the existing Metropolitan-Metropolitan Water District of Orange County-IRWD Coordinated Operating Agreement, this fee in 2024 dollars is estimated as \$1,105/AF. However, as described in Section 2.4, the costs of both Metropolitan supply and Metropolitan services are anticipated to

increase at a rate greater than inflation. The increased cost of Metropolitan treatment and conveyance fees is reflected in the cost estimates.

Cost elements for the anticipated yield are detailed below (Table 3-12), the present value calculation for Concept 2 Groundwater Banking Partnership with Irvine Ranch Water District is detailed in Table 3-13.

Table 3-12: Cost Elements Concept 2A, Banking Partnership IRWD Water Bank

Action	Volume (AF)	Cost per Volume (\$/AF)	Costs In a Given Year (\$ 2024)	Years Where Cost Occurs
Purchase Recharge Water	9603	400	\$3,841,200	Years 1, 2, 3, 21, 22, and 23
Recharge Cost	9603	38	\$364,914	Years 1, 2, 3, 21, 22, and 23
KCWA Wheeling Fees	9603	5	\$48,015	Years 1, 2, 3, 21, 22, and 23
KCWA Transaction Fees	1	1500	\$1,500	Years 1, 2, 3, 4, 10, 11, 15, 20, 21, 22, 23, 26, 27, 29, 34, 40
Recovery Cost	4041	184	\$743,471	Year 4
Recovery Cost	2707	184	\$498,125	Year 10
Recovery Cost	1814	184	\$333,744	Year 11
Recovery Cost	754	184	\$138,681	Year 15
Recovery Cost	282	184	\$51,863	Year 20
Recovery Cost	4201	184	\$773,033	Year 26
Recovery Cost	2815	184	\$517,932	Year 27
Recovery Cost	1886	184	\$347,015	Year 29
Recovery Cost	829	184	\$152,543	Year 34
Recovery Cost	0	184	\$0	Year 40
MWD Treatment and Conveyance	4041	1394	\$5,634,552	Year 4
MWD Treatment and Conveyance	2707	1869	\$5,059,061	Year 10
MWD Treatment and Conveyance	1814	1962	\$3,559,050	Year 11
MWD Treatment and Conveyance	754	2385	\$1,797,602	Year 15
MWD Treatment and Conveyance	282	3044	\$857,996	Year 20
MWD Treatment and Conveyance	4201	3529	\$14,825,603	Year 26
MWD Treatment and Conveyance	2815	3599	\$10,131,817	Year 27
MWD Treatment and Conveyance	1886	3745	\$7,062,566	Year 29
MWD Treatment and Conveyance	829	4135	\$3,427,743	Year 34
MWD Treatment and Conveyance	0	4656	\$0	Year 40

Table 3-13: Present Value Concept 2A, Banking Partnership with Irvine Ranch Water District

Base Year:	2024		Construction:		N/A
Soft Costs	N/A		Project Operates:		Years 1-41
			Loan Payments:		N/A
Amortized Loan Rate	0.00%	Assumes no loan			
Real Discount Rate:	2.10%	Office of Management and Budget Circular A-94, updated January			
					Present Value
Near-Term Yield (Year 1-6)	2869	Near-Term Costs (Year 1-6)	11,309,420		3,941
Mid-Term Yield (Year 7-21)	7173	Mid-Term Costs (Year 7-21)	31,520,434		4,394
Long-Term Yield (Year 22-41)	9565	Long-Term Yield (Year 22-41)	51,101,267		5,343

Year	Initial Costs (\$)*	Annual Costs (\$) *	Production Costs (\$)*	Total Costs (\$)	Cost Factor	Present Value (\$) **
0		0	0	0	0	0
1	1,152,360	147,756	573,359	1,873,475	1.000	1,873,475
2	1,152,360	147,756	599,160	1,899,276	0.979	1,871,974
3	1,152,360	147,756	632,114	1,932,230	0.958	1,878,196
4	1,152,360	147,756	666,880	1,966,996	0.938	1,886,797
5	1,152,360	147,756	700,224	2,000,340	0.919	1,894,523
6	1,152,360	147,756	735,236	2,035,351	0.899	1,904,454
7	1,152,360	147,756	771,997	2,072,113	0.880	1,916,663
8	1,152,360	147,756	810,597	2,110,713	0.862	1,931,224
9	1,152,360	147,756	851,127	2,151,243	0.844	1,948,220
10	1,152,360	147,756	893,684	2,193,799	0.826	1,967,738
11	1,152,360	147,756	938,368	2,238,483	0.809	1,989,867
12	1,152,360	147,756	985,286	2,285,402	0.792	2,014,704
13	1,152,360	147,756	1,034,550	2,334,666	0.775	2,042,350
14	1,152,360	147,756	1,086,278	2,386,394	0.759	2,072,914
15	1,152,360	147,756	1,140,592	2,440,707	0.743	2,106,509
16	1,152,360	147,756	1,197,621	2,497,737	0.727	2,143,254
17	1,152,360	147,756	1,257,503	2,557,618	0.712	2,183,277
18	1,152,360	147,756	1,320,378	2,620,493	0.697	2,226,711
19	1,152,360	147,756	1,386,397	2,686,512	0.682	2,273,696
20	1,152,360	147,756	1,455,716	2,755,832	0.668	2,324,383
21	1,152,360	147,756	1,528,502	2,828,618	0.654	2,378,927
22	1,152,360	147,756	1,559,072	2,859,188	0.640	2,391,638
23	1,152,360	147,756	1,590,254	2,890,369	0.627	2,405,335
24	1,152,360	147,756	1,622,059	2,922,174	0.614	2,420,024
25	1,152,360	147,756	1,654,500	2,954,616	0.601	2,435,708
26	1,152,360	147,756	1,687,590	2,987,706	0.588	2,452,392
27	1,152,360	147,756	1,721,342	3,021,457	0.576	2,470,083
28	1,152,360	147,756	1,755,769	3,055,884	0.564	2,488,787
29	1,152,360	147,756	1,790,884	3,091,000	0.552	2,508,509
30	1,152,360	147,756	1,826,702	3,126,817	0.540	2,529,256
31	1,152,360	147,756	1,863,236	3,163,351	0.529	2,551,037
32	1,152,360	147,756	1,900,500	3,200,616	0.518	2,573,857
33	1,152,360	147,756	1,938,510	3,238,626	0.507	2,597,727
34	1,152,360	147,756	1,977,281	3,277,396	0.496	2,622,654
35	1,152,360	147,756	2,016,826	3,316,942	0.486	2,648,646
36	1,152,360	147,756	2,057,163	3,357,278	0.476	2,675,715
37	1,152,360	147,756	2,098,306	3,398,422	0.466	2,703,868
38	1,152,360	147,756	2,140,272	3,440,388	0.456	2,733,118
39	1,152,360	147,756	2,183,077	3,483,193	0.446	2,763,473
40	1,152,360	147,756	2,226,739	3,526,855	0.437	2,794,947
41	0	147,756	2,271,274	2,419,029	0.428	2,334,493
	46,094,400	6,057,981	58,446,925	110,599,306		93,931,120

* For simplicity all costs expressed as annual costs, except MWD treatment and conveyance costs.

**All costs subject to discounting except MWD treatment and conveyance costs (these costs already discounted).

3.2.2 Concept 2B – Participation in Semitropic Water Bank

Semitropic Water Storage District (hereafter Semitropic) overlies 222,580 acres in northwest Kern County and conducts groundwater banking in the Kern Subbasin of the San Joaquin Valley Groundwater Basin (SWSD 2024). The bank began operations in the early 1990's and has an approved storage capacity of 1.65 million AF. Banking partners in the Semitropic program include:

- Metropolitan Water District of Southern California
- Santa Clara Valley Water District
- Zone 7 Water Agency
- Alameda County Water District
- Newhall Land and Farming Company
- San Diego County Water Authority
- City of Tracy
- Santa Clarita Valley Water Agency
- Homer LLC
- Poso Creek Water Company LLC
- Montecito Water District
- Harris Ranch

The original groundwater bank is fully subscribed. Semitropic is developing a second groundwater bank, the Semitropic Stored Water Recovery Unit (SWRU). SWRU has connections to the California Aqueduct of the SWP and the Central Valley Project of the US Bureau of Reclamation. Water is stored in the SWRU when one of the partners makes their allocated supplies or surplus supplies available to Semitropic for banking (SWSD 2024). The water made available is provided to landowners in the Semitropic service area in-lieu of those landowners pumping groundwater or the water is spread in recharge ponds. Water delivered to landowners is metered by Semitropic. Water is returned to the banking partners through two mechanisms:

1. Semitropic pumps stored water and delivers it to landowners in its service area and in turn the imported water that would have been delivered to Semitropic goes to one of the banking partners.
2. In dry years when there may not be enough SWP water to meet obligations to banking partners, Semitropic extracts stored water and delivers it to the California Aqueduct so it can be delivered to its banking partners.

The SWRU is estimated to be able to recharge up to 180,000 AFY (Semitropic 2024). The bank can return 133,000 AFY through SWP exchange, depending on the SWP allocation each year. The bank can return 300 cubic feet per second, approximately 200,000 AFY through pump-back to the California Aqueduct (SWSD 2024).

Because Metropolitan is an existing partner in the original Semitropic Water Bank, LVMWD already indirectly benefits from the groundwater bank. Semitropic has been resolving issues raised on the Kern Subbasin GSP and is currently not seeking additional banking partners for the SWRU. LVMWD could try to buy shares from an existing SWRU partner.

Given that LVMWD already has indirect benefits from Metropolitan's participation in the Semitropic Water Bank and the difficulty of participation at this time, this concept is not examined further. The ability to participate in a Semitropic Water Bank program should be re-examined in later updates of this Water Supply Diversification Study.

3.2.3 Concept 2C – Participation in Silvertip Water Reliability Program

Silvertip is a farming and sustainable water infrastructure company in the San Joaquin Valley. Silvertip has developed a robust portfolio of water entitlements, water storage, and water conveyance infrastructure to support its own farming operations, and to supply water to other landowners and water agencies. Silvertip has both SWP and Central Valley Project assets. Within the SWP system, Silvertip has ownership and access to over 200,000 AF of total storage. Water entitlements include SWP Table A water and long-term supplemental water purchase agreements. Silvertip currently has water stored in San Luis Reservoir, the Kern Water Bank, Semitropic Water Bank, Mendota Water Bank, Pioneer Project Groundwater Bank, and other facilities. LVMWD could become a participant in the Silvertip Water Reliability Program. Silvertip offers ten-year or longer terms for their program.

Data on the terms of an agreement and cost elements (e.g., costs of water purchase, cost of the annual storage reservation fee, costs of recovery) related to participation in the Silvertip Water Reliability Program were provided by Matt Payne, President of Silvertip.

3.2.3.1 Water Supply Characteristics

Silvertip has a broad portfolio that includes multiple water sources stored in the following groundwater banks or surface reservoir facilities along the SWP system, including:

- Berrenda Mesa Project
- Cawelo Water District
- Kern Water Bank
- Mendota Water Bank
- Pioneer Project
- San Luis Reservoir
- San Gabriel Valley
- Semitropic

Other water supply characteristics:

- **Water Recharged:** SWP water available to Silvertip pursuant to its SWP Table A entitlements, as well as long-term SWP water purchase agreements with various SWP contractors. A portion of this water is transferable to LVMWD (via Metropolitan) pursuant to the SWP water management tools and local water district policy.
- **Location of Recharge/Storage:** Silvertip participates in many storage facilities. San Luis Reservoir, an artificial lake on the SWP system is along the California Aqueduct near the City of Los Banos. Groundwater storage facilities along the SWP system are primarily in

the Kern County area, but also in other locations including the San Gabriel Valley and Fresno County.

- **Recovery Mechanism:** Water could be delivered from Silvertip via SWP exchange, released from San Luis Reservoir, or recovered from one of the groundwater banks in which Silvertip has storage. The specific mechanism would be at the discretion of Silvertip. Recovery for LVMWD would be on a first-priority basis.
- **Losses and Leave-Behind Provisions:** The anticipated terms of the participation with Silvertip do not include a loss or leave behind provision. LVMWD may sell or transfer to third parties any water purchased from Silvertip.

There are some known concerns with the storage facilities utilized by Silvertip. LVMWD would not directly bear risk from any of the storage facilities or investments of Silvertip. The following provides some general concerns and risks related to the Silvertip portfolio:

- **San Luis Reservoir** is a joint federal-state facility and both the SWP and CVP impose rules on how much water can be carried over from one year to the next and water can be forfeited if not used or moved to another facility. Silvertip would indemnify LVMWD against any forfeiture or “spill” of water from San Luis Reservoir.
- **Banking in Kern Subbasin.** As described earlier, the Kern Subbasin GSP has not been approved by the SWRCB. The SWRCB may take additional actions that increase the cost for using Kern banking facilities (SWRCB 2025). Some Kern groundwater bank waters require treatment for arsenic; this treatment is available but could increase cost for the recovered water. These same risks affect the Semitropic Water Bank and IRWD Water Bank. Silvertip’s diverse portfolio of multiple banking facilities across various locations may help to mitigate risks related to banking in the Kern Subbasin.

3.2.3.2 Potential Yield

In the Silvertip program a participant, such as LVMWD, purchases reserved storage and recovery capacity (hereafter, for simplicity referred to as shares) for the term of the agreement. After purchasing shares, annually Silvertip transfers water into the participant’s account, about 10 percent of the reserved storage volume, until all reserved storage is utilized. The participant can recover or sell the water from their account any time during the term of the agreement. For an additional fee, Silvertip can provide “Additional Water Transfers” if requested by LVMWD to accelerate filling the reserved storage volume. However, for the purposes of comparison, this Concept is evaluating water banking options that could result in approximately 4,000 AFY yield. The yield calculations assume:

- To have an annual recovery of 4,000 AF, LVMWD would need to purchase 12,000 shares.
- It is assumed that the original 10-year agreement with Silvertip is extended three times, for a project life of 40 years. Over those 40 years, based on a repeat of historic hydrology and past instances of Metropolitan implementing their WSAP, LVMWD would withdraw water from storage in ten of those forty years. In total LVMWD would need to purchase about 48,400 AF over 40 years.

3.2.3.3 Infrastructure Needed

It has been assumed that LVMWD could participate in Silvertip's existing facilities to store, recover, treat, and convey the water. This project would not involve new construction or infrastructure.

3.2.3.4 Timeline to Implement

Discussions with Silvertip indicate that a participation agreement could be in place within six months or sooner depending upon LVMWD's approval process. Water would be credited to the LVMWD account at 10 percent of the reserved storage annually, in this scenario 1,200 AFY, with 4,800 AF in storage by year 4. Given the "additional water purchases" provision of the Silvertip program, full project benefits could be realized immediately upon completion of the participation agreement. In addition to completing the participation agreement with Silvertip, to achieve the project benefits, LVMWD would need to enter into an agreement that sets the terms by which Metropolitan delivers water recovered to LVMWD. This agreement would lay out the procedural provisions related to request for delivery and return and reimbursement provisions for costs incurred by Metropolitan related to the delivery of Silvertip water to LVMWD. It is difficult to estimate how long such an agreement will take, but six months to one year is assumed.

3.2.3.5 Costs

Costs related to this concept are as follows:

- There is no upfront cost to buy shares in the Silvertip program.
- Storage Reservation and Administration Fee. Silvertip charges an annual fee for each AF of storage reservation, \$25/AF. This is regardless of how much water is in storage.
- Purchase of water to put into storage. This rate is set at time of the Silvertip agreement, currently \$1000/AF, but with a 15 percent discount in years when the SWP allocation is greater than 70 percent and a 15 percent increase in that rate when the SWP allocation is less than 30 percent. Given that the long-term average SWP delivery reliability is anticipated to be between 41 percent and 53 percent, this report assumes a water purchase cost of \$1000/AF in 30 years and \$1,150 in 10 years (DWR 2024a). In the anticipated period of the agreement with Silvertip (10 years with 3 extensions). It is anticipated that LVMWD would purchase 48,400 AF of water.
- Charges to recover water. Silvertip charges the actual recovery costs. These costs can be lower when water is delivered via an exchange with an SWP contractor and greater when pumped from storage. For this calculation it is assumed SWP water will be limited, and it will be necessary to take water from groundwater storage. This cost is estimated as \$184/AF (consistent with charges from other groundwater banking programs).
- Costs to deliver water to Metropolitan turnouts then to LVMWD. Water shall be pumped and conveyed to the California Aqueduct then transported by DWR to the Metropolitan turnout. The rate charged by DWR will be the Variable Operation, Maintenance, Power and Replacement Component of the Transportation Charge and the Off-Aqueduct Power Facility cost for each acre-foot conveyed by DWR on behalf of LVMWD. Metropolitan will then treat and convey this water to LVMWD. This is assumed to be similar to that

estimated for Concept 2A with costs escalating at a rate greater than inflation (see Section 2.4). The escalating cost of Metropolitan treatment and conveyance fees is reflected in the cost estimates.

- Sale of water. Silvertip does allow its participants to sell water. In the evaluation herein it has been assumed that at the end of the agreement LVMWD sells any water still in storage. This sold water is not a benefit to the LVMWD service area, but does offset program costs.

Estimated costs for the anticipated yield are detailed below in Table 3-14, the present value calculation for Concept 2C Participation in Silvertip Water Reliability Program is detailed in Table 3-15.

Table 3-14: Cost Elements Concept 2C, Participation in Silvertip Water Reliability Program

Action	Volume (AF)	Cost per Volume (\$/AF)	Costs In a Given Year (\$ 2024)	Years Where Cost Occurs
Purchase of Shares	NA	NA	NA	No cost to purchase shares
Storage Reservation and Administrative Fee	12000	25	\$300,000	Years 1-40
Purchase of Water	1200	1000	\$1,200,000	Years 1-3, 5-9, 12-14, 16-19, 21-25, 28, 30-33, 35-39
Purchase of Water	1200	1150	\$1,380,000	Years 4, 10, 11, 15, 20, 26-27, 29, 34, 40
Purchase of Water	400	1150	\$460,000	Year 5
Recovery Cost	4000	184	\$736,000	Year 4
Recovery Cost	4000	184	\$736,000	Year 10
Recovery Cost	4000	184	\$736,000	Year 11
Recovery Cost	4000	184	\$736,000	Year 15
Recovery Cost	4000	184	\$736,000	Year 20
Recovery Cost	4000	184	\$736,000	Year 26
Recovery Cost	4000	184	\$736,000	Year 27
Recovery Cost	4000	184	\$736,000	Year 29
Recovery Cost	4000	184	\$736,000	Year 34
Recovery Cost	4000	184	\$736,000	Year 40
MWD Treatment and Conveyance	4000	1394	\$5,577,932	Year 4
MWD Treatment and Conveyance	4000	1869	\$7,474,962	Year 10
MWD Treatment and Conveyance	4000	1962	\$7,848,711	Year 11
MWD Treatment and Conveyance	4000	2385	\$9,540,157	Year 15
MWD Treatment and Conveyance	4000	3044	\$12,175,926	Year 20
MWD Treatment and Conveyance	4000	3529	\$14,115,367	Year 26
MWD Treatment and Conveyance	4000	3599	\$14,397,674	Year 27
MWD Treatment and Conveyance	4000	3745	\$14,979,340	Year 29
MWD Treatment and Conveyance	4000	4135	\$16,538,402	Year 34
MWD Treatment and Conveyance	4000	4656	\$18,624,926	Year 40
Water Sold at End of 40 Years (cost offset)	8800	-600	(\$5,280,000)	Year 40

Table 3-15: Present Value Concept 2C, Participation in Silvertip Water Reliability Program

Base Year:	2024		Construction:		N/A	
Soft Costs	N/A		Project Operates:		Years 1-41	
			Loan Payments:		N/A	
Amortized Loan Rate	0.00%	Assumes no loan				
Real Discount Rate:	2.10%	Office of Management and Budget Circular A-94, updated January				
					Present Value	
Near-Term Yield (Year 1-6)	6000	Near-Term Costs (Year 1-6)	17,926,752	2,988		
Mid-Term Yield (Year 7-21)	15000	Mid-Term Costs (Year 7-21)	54,632,386	3,642		
Long-Term Yield (Year 22-41)	20000	Long-Term Yield (Year 22-41)	90,232,831	4,512		
Year	Initial Costs (\$)*	Annual Costs (\$) *	Production Costs (\$)*	Total Costs (\$)	Cost Factor	Present Value (\$)**
0		0	0	0	0	0
1	0	1,684,000	1,198,925	2,882,925	1.000	2,882,925
2	0	1,684,000	1,252,877	2,936,877	0.979	2,901,511
3	0	1,684,000	1,321,785	3,005,785	0.958	2,935,799
4	0	1,864,000	1,394,483	3,258,483	0.938	3,143,500
5	0	1,684,000	1,464,207	3,148,207	0.919	3,011,141
6	0	1,684,000	1,537,418	3,221,418	0.899	3,051,870
7	0	1,684,000	1,614,288	3,298,288	0.880	3,096,937
8	0	1,684,000	1,695,003	3,379,003	0.862	3,146,510
9	0	1,684,000	1,779,753	3,463,753	0.844	3,200,784
10	0	1,864,000	1,868,741	3,732,741	0.826	3,408,632
11	0	1,864,000	1,962,178	3,826,178	0.809	3,469,731
12	0	1,684,000	2,060,287	3,744,287	0.792	3,393,660
13	0	1,684,000	2,163,301	3,847,301	0.775	3,468,673
14	0	1,684,000	2,271,466	3,955,466	0.759	3,549,425
15	0	1,864,000	2,385,039	4,249,039	0.743	3,769,892
16	0	1,684,000	2,504,291	4,188,291	0.727	3,729,140
17	0	1,684,000	2,629,506	4,313,506	0.712	3,828,633
18	0	1,684,000	2,760,981	4,444,981	0.697	3,934,926
19	0	1,684,000	2,899,030	4,583,030	0.682	4,048,322
20	0	1,864,000	3,043,982	4,907,982	0.668	4,289,405
21	0	1,684,000	3,196,181	4,880,181	0.654	4,297,710
22	0	1,684,000	3,260,104	4,944,104	0.640	4,338,501
23	0	1,684,000	3,325,306	5,009,306	0.627	4,381,057
24	0	1,684,000	3,391,812	5,075,812	0.614	4,425,392
25	0	1,684,000	3,459,649	5,143,649	0.601	4,471,523
26	0	1,684,000	3,528,842	5,212,842	0.588	4,519,467
27	0	1,684,000	3,599,418	5,283,418	0.576	4,569,241
28	0	1,684,000	3,671,407	5,355,407	0.564	4,620,863
29	0	1,864,000	3,744,835	5,608,835	0.552	4,773,707
30	0	1,684,000	3,819,732	5,503,732	0.540	4,729,729
31	0	1,684,000	3,896,126	5,580,126	0.529	4,787,014
32	0	1,684,000	3,974,049	5,658,049	0.518	4,846,228
33	0	1,684,000	4,053,530	5,737,530	0.507	4,907,393
34	0	1,864,000	4,134,600	5,998,600	0.496	5,059,884
35	0	1,684,000	4,217,292	5,901,292	0.486	5,035,670
36	0	1,684,000	4,301,638	5,985,638	0.476	5,102,830
37	0	1,684,000	4,387,671	6,071,671	0.466	5,172,037
38	0	1,684,000	4,475,424	6,159,424	0.456	5,243,319
39	0	1,684,000	4,564,933	6,248,933	0.446	5,316,702
40	0	1,864,000	4,656,232	6,520,232	0.437	5,470,881
41	-5,280,000	1,684,000	0	-8,876,000	0.428	-1,538,606
	-5,280,000	70,484,000	117,466,320	177,390,320		162,791,969
* For simplicity most costs expressed as annual costs, except MWD treatment and conveyance costs.						
**All costs subject to discounting except MWD treatment and conveyance costs (these costs already discounted).						

3.2.4 Concept 3 – Participation in Calleguas Municipal Water District WRIST Program – Local Groundwater Banking

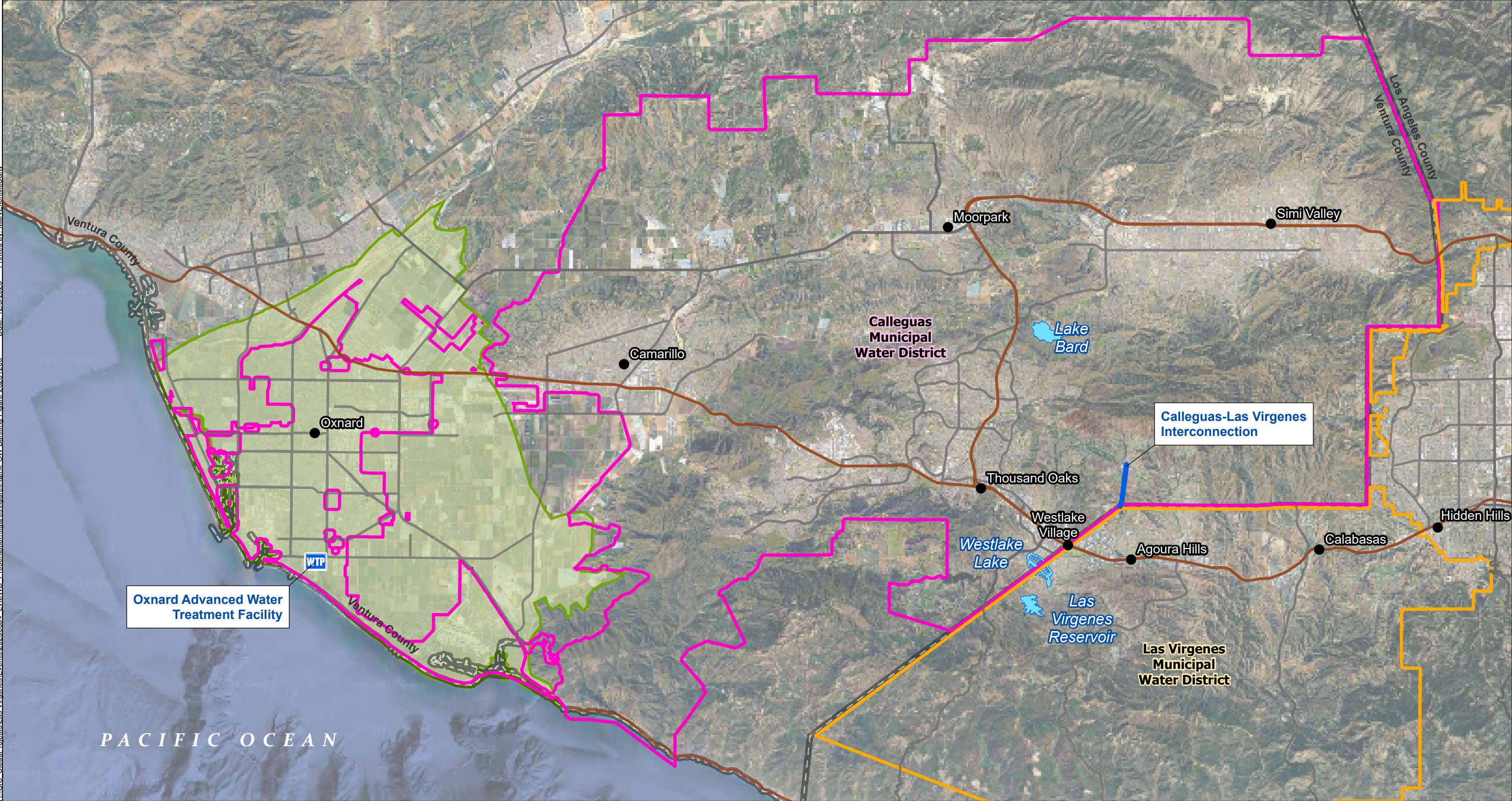
3.2.4.1 Project Description

The stakeholder group guiding this study expressed interest in evaluating both local (Los Angeles and Ventura Counties) and distant groundwater banking opportunities. Concept 2 reviews opportunities for groundwater banking outside of these counties, while Concept 3, the focus of this discussion, evaluates the potential for more local groundwater banking as part of a regional effort. Figure 3-2 shows groundwater banking opportunities in Ventura County.

In Los Angeles County, the Los Angeles Department of Water and Power (LADWP) has the ability to store large amounts of water in the groundwater basin in San Fernando Valley. Current plans consist of advance treating recycled water from its Donald C. Tillman Water Reclamation Plant as part of the Los Angeles Groundwater Replenishment Project and then storing that water in the basin for later extraction and reuse. The Project is anticipated to be completed by the year 2028 and will produce up to 22,000 acre-feet of water that can be stored annually. LADWP is also in the process of remediating contaminated groundwater within the basin and those efforts are ongoing. LVMWD may have an opportunity to participate in a local groundwater banking program with LADWP in the future after remediation efforts are made and potential supplies from the basin are better understood. LVMWD staff will be following these efforts and consideration will be given to including this potential supply in mid to long-term supply portfolios. The supply from this source could potentially augment or substitute any of the other concepts presented in this report.

Calleguas Municipal Water District (Calleguas), a neighboring agency to LVMWD and a Metropolitan member agency, has an existing pipeline interconnection with LVMWD. Recently Calleguas, in partnership with retail and regional partners, has developed a portfolio of projects aimed at enhancing supply reliability and resilience under projected normal and drought conditions, as well as during extended imported water outages. These efforts are part of their Water Resources Implementation Strategy (WRIST).

Projects identified in WRIST include: desalters in the northern reach of Calleguas Creek, aquifer storage and recovery, development of a wheeling framework to facilitate local and regional exchanges, infrastructure to facilitate moving water within the broader Calleguas system, increased groundwater pumping and treatment, and increased local storage. The WRIST stakeholders are actively studying a desalter in the northern reach of the Calleguas Creek (“the Calleguas Creek Desalter Project”) and this work is ongoing. The Calleguas Creek Desalter Project was not presented to stakeholders for consideration because the scope and cost of the project is not yet well understood. However, LVMWD staff will be following the project for consideration to be included in mid- to long-term supply portfolios. The supply from this source could augment or substitute any of the other concepts presented in this report.

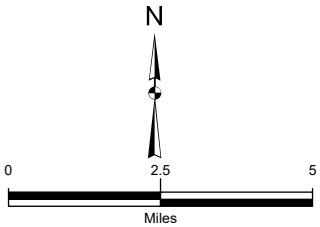


Legend

-  Oxnard Advanced Water Treatment Facility
-  Calleguas-Las Virgenes Interconnection
-  Las Virgenes Municipal Water District
-  Calleguas Municipal Water District
-  Counties
-  Santa Clara River Valley - Oxnard Groundwater Basin

Notes:

- Locations are approximate.



 Kennedy Jenks

Groundwater Banking Opportunities
Ventura County, CA'

**Groundwater Banking Opportunities
Ventura County**

2444217*06

Figure : 216

A high scoring local supply project identified in the WRIST Phase 1 study was the expansion of the City of Oxnard Advanced Water Purification Facility (AWPF) for indirect potable reuse. As described in the Phase 1 Study, the proposed project includes expanding the Oxnard AWPF to full advanced treatment, constructing recycled water conveyance infrastructure, and installing injection and extraction wells for groundwater storage and recovery. The anticipated new supply, above the volume of recycled water currently produced by the AWPF, is approximately 16,800 AFY.

Concept 3 includes infrastructure, agreements, and other elements beyond that currently being evaluated by the City of Oxnard for the AWPF. Concept 3 was developed to evaluate how and if future water supplies could benefit LVMWD. The specifics of the infrastructure, institutional arrangements, and costs of Concept 3 have not been vetted by the City of Oxnard.

The previous discussion for Concept 2 includes information on concepts related to groundwater banking also applicable to this Concept 3, including groundwater banking framework, sources for recharge, methods for recharge, methods for recovery, and use of stored water. The reader is directed to Section 3.2 for this background information.

3.2.4.2 Water Supply Characteristics

The water source for this concept is treated effluent from the City of Oxnard's AWPF, which is delivered to irrigation users and injected into the Oxnard Plain Groundwater Basin for later recovery. Currently, there is no connection between LVMWD and the Oxnard Plain Groundwater Basin. LVMWD could receive the water through an exchange whereby the City of Oxnard reduces its use of imported water from Calleguas, and a similar amount of imported water is directed to LVMWD through Metropolitan's Local Exchange Framework. Below is a snapshot of water supply characteristics:

- **Water Recharged:** Advanced treated water from City of Oxnard AWPF
- **Location of Recharge:** Oxnard Plain Groundwater Basin
- **Recovery Mechanism:** LVMWD would not physically receive the recharged and recovered groundwater. Instead, LVMWD would receive imported Metropolitan supplies through the Local Supply Exchange Framework. Under this framework, water produced locally by a Metropolitan member agency or its customer (in this case the City of Oxnard and Calleguas) can be exchanged with another member agency (LVMWD). The Seller (Oxnard and Calleguas) purchases Metropolitan supplies and requests delivery to the Buyer (LVMWD). Metropolitan accounts for the purchase and attributes local supply production to the Buyer. The Buyer and Seller coordinate the amount and price of water exchanged. Authority for approving local supply agreements has been delegated to the Metropolitan General Manager.

Unfortunately using an exchange for recovery, rather than pumping and moving water via pipeline has drawbacks. The primary drawback is that LVMWD would still be dependent on SWP water. If there were not sufficient allocation of SWP water, a full exchange could not occur and LVMWD would not get the benefit of this investment.

- **Losses and Leave-Behind Provisions:** The Fox Canyon Groundwater Management Agency (GMA), which serves as the Groundwater Sustainability Agency for the Oxnard Plain Groundwater Basin, has not developed a groundwater banking framework. Therefore, losses and leave-behind provisions that might apply are unknown. For this analysis, conservative assumptions are used for loss and leave behind provisions, which may differ from those in the City of Oxnard's AWPf Expansion and Indirect Potable Reuse Project analysis. Assumptions used herein are a 15 percent leave-behind requirement, and no recharge loss (e.g. evaporation), provided aquifer storage and recovery (ASR) wells are the mechanism used for recharge.

Management of the Oxnard Plain Groundwater Basin has been subject to extensive legal disputes among cities, growers, landowners, local recharge entities, and the Fox Canyon GMA. Ongoing litigation has complicated efforts to design and implement a groundwater banking program. The timeline for establishing a groundwater banking framework remains uncertain.

3.2.4.3 Potential Yield

The potential yield of Concept 3 must be considered given the uncertainty surrounding near-term implementation of groundwater banking in the Oxnard Plain Groundwater Basin.

The City of Oxnard has proposed the AWPf Expansion and Indirect Potable Reuse Project in three phases summarized below:

- **Phase 1** (ongoing): Piloting of the injection of advanced treated recycled water from the AWPf.
- **Phase 2:** Construction of new injections and extraction wells and associated piping, enabling injection of approximately 6.25 MGD (~7,000 AFY) into the basin.
- **Phase 3:** Expansion of the AWPf to maximize production of advanced treated water and construction of additional injection and extraction wells, pumps, and piping. The anticipated ultimate capacity is 15 MGD (~16,800 AFY) for in-lieu delivery or injection.

The City of Oxnard utilizes imported water for supply and blending with local sources to meet water quality standards. In its water supply planning through year 2045, the City of Oxnard anticipates using up to 5,000 AFY from the project while continuing to purchase 6,169 AFY imported water from Calleguas (total demand for imported and AWPf water of ~11,200 AFY). Assuming full implementation of Phase 3 (16,800 AFY of advanced treated water production), the City of Oxnard could offset ~11,200 AFY demand and still have approximately 5,000 AFY of excess supply. After applying a conservative 15 percent leave-behind requirement, this could result in 4,250 AFY of new recoverable water available to benefit LVMWD, more than the 4,000 AFY target.

As established in Concept 2, LVMWD targets storing enough water to cover a shortage of approximately 4,000 AF each in a drought year and to diversify supplies in a normal year. LVMWD anticipates up to three shortage years per decade. From the initiation of the AWPf Expansion and Indirect Potable Reuse Project until 2040, LVMWD would aim to maintain storage of 12,000 AF in the Oxnard Plain, which would allow LVMWD to withdraw up to 4,000 AF in a drought, even if the drought occurred in three consecutive years. In years following withdrawal of the LVMWD storage, LVMWD would then purchase and store more output from

the project to maintain the 12,000 AF of storage. Because there is no infrastructure in place to move the banked water, LVMWD would receive the water through an SWP exchange.

To realize shortage-year benefits from this project, agreements must be established between the following entities:

- **City of Oxnard:** Responsible for implementing the AWPf Expansion and Indirect Potable Reuse Project and recharging the produced water into the Oxnard Plain Groundwater Basin. As a member purveyor of Calleguas Municipal Water District, the City of Oxnard could purchase imported water during shortage years (via Calleguas and Metropolitan) and direct its delivery to LVMWD, while pumping an equivalent amount of previously banked groundwater.
- **Calleguas Municipal Water District:** As a wholesale water agency and Metropolitan member agency, Calleguas would participate in negotiating the Local Supply Exchange Framework, enabling groundwater to be pumped in the Oxnard Plain Groundwater Basin to be exchanged for imported Metropolitan water delivered to LVMWD.
- **Camrosa Water District:** A member purveyor of Calleguas Municipal Water District that also utilizes water from the Oxnard Plain Groundwater Basin. In shortage years, if the City of Oxnard's imported water allocation is insufficient to facilitate an exchange of 4,000 AF to LVMWD, Camrosa Water District could exchange available imported Metropolitan water to LVMWD and instead pump an equivalent amount of previously banked groundwater. The feasibility of Camrosa Water District switching to local groundwater instead of imported water has not been evaluated.

3.2.4.4 Infrastructure Needed

Implementation of the AWPf Expansion and Indirect Potable Reuse Project would require a significant amount of new infrastructure to be built by the City of Oxnard and/or its partners. The required infrastructure includes:

- Additional treatment unit processes at the AWPf, including microfiltration, reverse osmosis, ultraviolet disinfection, and advanced oxidation.
- Installation of up to 10 new injection wells, each with a capacity of approximately 1,250 gallons per minute (GPM).
- Installation of up to 6 new extraction wells with a production capacity of approximately 2,500 GPM each.
- Construction of 5 monitoring wells.
- Construction of approximately 2,000 linear feet (LF) of piping to convey recovered water to the City of Oxnard's blending station No. 1/6 for disinfection and introduction into the potable system.
- Construction of approximately 40,000 LF of pipeline to convey recycled water from the AWPf to injection wells.

It is assumed that the exchange water would be delivered through existing Metropolitan and LVMWD facilities.

3.2.4.5 Timeline to Implement

The City of Oxnard anticipates that Phase 3 of the AWPf Expansion and Indirect Potable Reuse Project will not occur for 12 years. This timeframe is assumed to be sufficient for LVMWD, the City of Oxnard, and Metropolitan to negotiate a local supply exchange agreement. It is also assumed that 12 years would allow the Fox Canyon GMA to develop and implement a groundwater banking framework.

3.2.4.6 Costs

Anticipated costs associated with participating in local groundwater banking through the AWPf Expansion and Indirect Potable Reuse Project are summarized below and in Tables 3-16 and 3-17.

- **Cost to buy into the Oxnard AWPf Expansion and Indirect Potable Reuse Project:** Assuming a useful life of 30 years, LVMWD would seek to utilize approximately 8 percent of the project output (about 42,350 AF of the 504,000 AF produced over 30 years). Based on this assumption, LVMWD would contribute approximately 8 percent of the anticipated capital costs, estimated at \$42.2 million. Capital costs estimates for the AWPf Expansion and Indirect Potable Reuse Project are taken from the WRIST Phase 1 Study and are expressed in 2024 US dollars.
- **Operations and Maintenance (O&M):** Costs associated with producing and storing water are estimated to be \$1,945 per AF, which accounts for AWPf operation, well maintenance, and pipeline O&M. For simplicity, it is assumed LVMWD would pay annually for these costs, not just in years when water is stored or withdrawn. These estimates are based on the WRIST Phase 1 Study and are in 2024 US dollars.
- **Exchange Participation Costs:** The City of Oxnard and any regional partners that agree to exchange their imported water with LVMWD will incur expenses for purchasing water from Calleguas and subsequent expenses for pumping and treating groundwater. To encourage participation by regional partners in the exchange, it is assumed that LVMWD will cover the estimated costs for regional partners to pump and convey groundwater for volumes related to the Local Supply Exchange Framework. Based on the WRIST Phase 1 Study, the estimated cost for the City of Oxnard to pump groundwater from the Oxnard Plain Groundwater Basin is \$500 per AF.
- **Fox Canyon Transaction Fees:** Currently, Fox Canyon GMA charges extraction fees, a sustainability fee, and a reserve fee. There are no specific fees for groundwater banking or related transactions at this time. It is assumed that the City of Oxnard's future use of stored groundwater would be subject to all applicable fees. This is assumed to be captured in the costs to offset groundwater pumping.

Table 3-16: Cost Elements Concept 3, Local Groundwater Banking as Part of Regional Effort

Action	Volume (AF)	Cost per Volume (\$/AF)	Costs In a Given Year (\$ 2024)	Years Where Cost Occurs
Contribution to Capital Costs	NA	NA	\$2,442,696	Years 6-36
O&M Costs*	1513	1945	\$2,942,090	Years 13-40
Offset Groundwater Pumping Costs*	1000	500	\$500,000	Years 13-40
Sale of Water (cost offset)	8000	-600	(\$4,800,540)	Year 40

*Costs have been annualized as its assumed annual payments will be used in agreement negotiations. Costs based on data provided in the WRIST Phase 1 Study.

Table 3-17: Present Value Concept 3, Local Groundwater Banking as Part of Regional Effort

Base Year:		2024		Construction:			N/A
Soft Costs		N/A		Project Operates:			Years 1-41
				Loan Payments:			N/A
Amortized Loan Rate		4.00%	Assumes no loan				
Real Discount Rate:		2.10%	Office of Management and Budget Circular A-94, updated January				
							Present Value
Near-Term Yield (Year 1-6)		NA	Near-Term Costs (Year 1-6)		NA	NA	
Mid-Term Yield (Year 7-21)		9000	Mid-Term Costs (Year 7-21)		50,015,098	5,557	
Long-Term Yield (Year 22-41)		20000	Long-Term Costs (Year 22-41)		54,561,004	2,728	
Year	Initial Costs (\$)*	Annual Costs (\$) *	Production Costs (\$)*	Total Costs (\$)	Cost Factor	Present Value (\$)**	
0		0	0	0	0	0	
1	0	0	0	0	1.000	0	
2	0	0	0	0	0.979	0	
3	0	0	0	0	0.958	0	
4	0	0	0	0	0.938	0	
5	0	0	0	0	0.919	0	
6	2,442,696	0	0	2,442,696	0.899	2,196,763	
7	2,442,696	0	0	2,442,696	0.880	2,150,629	
8	2,442,696	0	0	2,442,696	0.862	2,105,466	
9	2,442,696	0	0	2,442,696	0.844	2,061,253	
10	2,442,696	0	0	2,442,696	0.826	2,017,965	
11	2,442,696	0	0	2,442,696	0.809	1,975,587	
12	2,442,696	0	0	2,442,696	0.792	1,934,100	
13	2,442,696	3,442,090	0	5,884,786	0.775	4,561,663	
14	2,442,696	3,442,090	0	5,884,786	0.759	4,465,866	
15	2,442,696	3,442,090	0	5,884,786	0.743	4,372,083	
16	2,442,696	3,442,090	0	5,884,786	0.727	4,280,269	
17	2,442,696	3,442,090	0	5,884,786	0.712	4,190,383	
18	2,442,696	3,442,090	0	5,884,786	0.697	4,102,385	
19	2,442,696	3,442,090	0	5,884,786	0.682	4,016,235	
20	2,442,696	3,442,090	0	5,884,786	0.668	3,931,894	
21	2,442,696	3,442,090	0	5,884,786	0.654	3,849,324	
22	2,442,696	3,442,090	0	5,884,786	0.640	3,768,489	
23	2,442,696	3,442,090	0	5,884,786	0.627	3,689,350	
24	2,442,696	3,442,090	0	5,884,786	0.614	3,611,874	
25	2,442,696	3,442,090	0	5,884,786	0.601	3,536,025	
26	2,442,696	3,442,090	0	5,884,786	0.588	3,461,768	
27	2,442,696	3,442,090	0	5,884,786	0.576	3,389,071	
28	2,442,696	3,442,090	0	5,884,786	0.564	3,317,900	
29	2,442,696	3,442,090	0	5,884,786	0.552	3,248,225	
30	2,442,696	3,442,090	0	5,884,786	0.540	3,180,012	
31	2,442,696	3,442,090	0	5,884,786	0.529	3,113,233	
32	2,442,696	3,442,090	0	5,884,786	0.518	3,047,854	
33	2,442,696	3,442,090	0	5,884,786	0.507	2,983,849	
34	2,442,696	3,442,090	0	5,884,786	0.496	2,921,180	
35	2,442,696	3,442,090	0	5,884,786	0.486	2,859,843	
36	2,442,696	3,442,090	0	5,884,786	0.476	2,799,786	
37	0	3,442,090	0	3,442,090	0.466	1,603,242	
38	0	3,442,090	0	3,442,090	0.456	1,569,574	
39	0	3,442,090	0	3,442,090	0.446	1,536,612	
40	0	3,442,090	0	3,442,090	0.437	1,504,344	
41	-4,800,540	3,442,090	0	-6,638,450	0.428	-581,234	
	70,923,023	99,820,620	0	165,463,644		106,772,863	
* For simplicity most costs expressed as annual costs							

3.2.5 Concept 4 – Participation in the Expanded South Oxnard Plain Brackish Water Treatment Project

3.2.5.1 Project Description

The stakeholder group guiding this study expressed interest in partnering in other regional programs and specifically programs identified in the WRIST being undertaken by Calleguas Municipal Water District in partnership with retail and regional partners. One such project is the South Oxnard Plain Brackish Water Treatment Project. Since its initial conceptual development, the project has been refined based on updated hydrogeologic information and groundwater modeling outputs, leading to modifications in project approach and proposed location. The project has had different titles but is officially called the Extraction Barrier and Brackish Water Treatment Project by United Water Conservation District (United), United is the agency leading studies and design of this project. The project was originally conceived to combat seawater intrusion into the Oxnard and Mugu aquifers of the Oxnard Plain Groundwater Basin. United, as well as other local agencies, recognize that the pumped water, with treatment, could result in a new supply. A portion of the product water could be used for municipal potable supply. Modifications could be made to the planned facilities so that water could be sold and delivered to LVMWD. However, this option would require further study and discussions with United as the project advances to future phases.

Concept 4 includes infrastructure, agreements, and other elements beyond that currently being evaluated by United as part of the Extraction Barrier and Brackish Water Treatment Project. Concept 4 was developed to evaluate how and if future water supplies could benefit LVMWD. The specifics of the infrastructure, institutional arrangements, and costs of Concept 4 have not been vetted by United.

3.2.5.2 Water Supply Characteristics

The water source would be treated brackish groundwater from a portion of the Oxnard Plain Groundwater Basin impacted by seawater intrusion.

3.2.5.3 Potential Yield

United has undertaken several feasibility studies using flow and solute transport modeling to determine potential project yield. In 2021 United completed a feasibility study using groundwater flow and solute transport modeling that considered several scenarios with different numbers of wells, different extraction rates, and treated water yield from 5,000 AFY to 20,000 AFY. The following project phases are currently planned:

- **Phase 1.** United, with the US Navy, is planning to install monitoring wells and seven extraction wells. The project is anticipated to extract 3,500 AFY that will be discharged to Mugu Lagoon. Groundwater levels and groundwater salinity will be monitored in Phase 1 to confirm modeling concepts.
- **Phase 2.** The extraction barrier wellfield established in Phase 1 will be expanded to approximately 10,000 AFY extraction capacity. Phase 2 will also include construction of a full water treatment facility using reverse osmosis to desalinate the extracted brackish groundwater. A portion of the treated water will be delivered to Naval Base Ventura

County and the remainder distributed for beneficial use on the Oxnard Plan. Brine concentrate generated during treatment will be discharged to the Calleguas Salinity Management Pipeline. Additional phases or project expansion beyond Phase 2 is not considered to be part of the United Extraction Barrier and Brackish Water Treatment Project.

- **Expanded Project.** The WRIST study envisioned further expansion of the project to extract 41,000 AFY. This would involve approximately 38 extraction wells, a 17.8 MGD brackish water treatment facility and result in approximately 20,000 AFY water suitable for municipal use.

The potential yield of Concept 4 to LVMWD will be affected by technical considerations and institutional considerations. Technical considerations include the extent of the seawater intrusion, how much water can be pumped without hindering implementation of the Oxnard Plain Groundwater Sustainability Plan, recovery rate and resultant water quality. The Extraction Barrier and Brackish Water Treatment Project has been identified as a key project for achieving groundwater sustainability in the Oxnard Plain. Institutional considerations include whether LVMWD, an agency that does not overlie the Oxnard Plain Groundwater Basin, could get the necessary agreements whereby LVMWD could receive treated water from the basin. Reports by United have indicated that projects planned in the Oxnard Basin will increase the yield of the Basin. These projects include improvements to Santa Felicia Dam, expansion of the Freeman Diversion System, increased use of recycled water, and the South Oxnard Plain Brackish Water Treatment Project. If these projects are successful in ameliorating overdraft in the Oxnard Basin there may be water available and a willingness to sell water outside of the Basin area. There is great uncertainty as to whether and in what timeframe the Oxnard Plain Groundwater Basin will be in “sustainable” status.

For the purposes of this analysis, it is assumed that LVMWD could contribute financial resources that would spur development of the South Oxnard Plain Groundwater Treatment Project and in return LVMWD would get the benefit of up to 4,000 AFY product water.

3.2.5.4 Infrastructure Needed

Implementation of the Expanded South Oxnard Plain Brackish Water Treatment Facility with pipeline connection to LVMWD would require a significant amount of new infrastructure to be built by United and/or its partners. The required infrastructure would include:

- o Treatment Plant
- o Construction of 17.8 million gallon per day brackish water treatment facility at Naval Base Ventura County.
- o Product water tank ahead of the product water pump station.
- o Product water pump station to move water to distribution system.
- o Brine storage tank.
- o Discharge line to the Salinity Management Pipeline
- o Extraction System
- o Installation of up to 38 extraction wells

- o Installation of more than 43,400 linear feet of well piping to move water from extraction to treatment
- o Conveyance to LVMWD
- o Approximately 143,500 LF of 18" diameter pipeline would be needed to move the product water from the treatment facility, southeasterly to Malibu and then to the planned location on the Los Angeles County Road Maintenance lot (off Malibu Canyon Road) near the Waterworks District 29 and Las Virgenes Interconnection.
- o Installation of 400 horsepower (HP) pump station in the near vicinity of the Brackish Water Treatment Facility.
- o Installation of an approximately 300 HP booster pump station in the vicinity of Zuma Beach.

It is assumed that the treatment plant and extraction system would be built by others and their cost covered through sale of water to LVMWD. Construction and operation of the conveyance to LVMWD would be the responsibility of LVMWD.

3.2.5.5 Timeline to Implement

United estimates that Phase 1 and Phase 2 will take approximately 10 years, dependent on funding. It is estimated that expansion of the South Oxnard Plain Brackish Water Treatment Plant will take another approximately 10 years. As financing and permits have not been secured for any actions past Phase 1, the schedule is a point of uncertainty.

3.2.5.6 Costs

Anticipated costs associated with participating in the Expanded South Oxnard Plain Brackish Water Treatment Project are summarized below and in Tables 3-18 and 3-19:

- **Cost to buy into the Expanded South Oxnard Plain Brackish Water Treatment Project:** This analysis assumes that LVMWD does not contribute to the capital costs of the Brackish Water Treatment Facility, rather costs are captured in the sale price per acre-foot of water charged by United.
- **Conveyance Pipeline Brackish Water Treatment Facility to Waterworks District 29 and LVMWD Interconnection.** This analysis assumes a 27-mile-long pipeline connection to move water from the Brackish Water Treatment Facility to the proposed Las Virgenes and Waterworks District 29 interconnection (see Figure 3-3). The pipeline would generally follow the Pacific Coast Highway before turning north on Malibu Canyon Road and ending at the Los Angeles County Road Maintenance lot. It is assumed that LVMWD would bear the full costs of this pipeline. However, as the project could act as an additional connection to Los Angeles County Waterworks District 29, it is possible that agency could provide some cost share. Assumptions and details on the capital cost elements is provided in Tables 3-18. The cost for constructing and pumping water through the District 29 Interconnection is not included in the estimate.



Legend

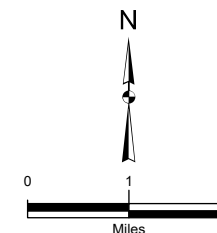
- | | |
|---|---|
|  Los Angeles County Road Maintenance |  Las Virgenes Municipal Water District |
|  Malibu Equestrian Center Booster Pump Station |  Calleguas Municipal Water District |
|  Point Mugu Parking Lot Pump Station |  Counties |

Proposed Pipelines

- | | |
|--|-----------------------|
|  | 18" C900 Pipeline Pt1 |
|  | 18" C900 Pipeline Pt2 |

Notes:

- Locations are approximate.



- **Pump Station.** The elevation changes between Point Mugu and the proposed location of the booster pump station is overall 10 feet but as much as 185 feet. It is assumed that a 400 HP pump station will be needed. It is assumed this pump station could be placed in the same general location as the Brackish Water Treatment Facility. Assumptions and details on the capital cost elements are provided in Tables 3-18 and 3-19.
- **Booster Pump Station.** The elevation changes between the proposed booster pump station and the LA County Transportation Yard is overall 20 feet but as much as 229 feet. A specific site has not been chosen, it is assumed that the pump station could be placed on publicly owned property, and no land acquisition costs have been included. Assumptions on the capital cost elements are provided in Tables 3-18.
- **Operations and Maintenance (O&M):** Operations and Maintenance cost relate to operation of the pump station (electricity) as well as pump station and pipeline O&M. The cost for electricity is assumed to be \$0.35 per kWh. The annual operations and maintenance costs for pipelines are assumed to be 1.5 percent of capital costs and maintenance for pump stations is assumed to be 4 percent of capital costs.
- **Purchase of Water from United Water Conservation District:** Based on the WRIST Phase 1 Study, the estimated cost to purchase water from the Expanded South Oxnard Plain Brackish Water Treatment Project is \$2,100 per AF. Because LVMWD is outside of the Oxnard Plain Basin an additional fee of 20 percent has been added to the assumed cost. The 20 percent fee is an estimate as there are no specific policies in place by the FCGMA for this program. The 20 percent fee is meant to facilitate additional projects to support Oxnard Plain groundwater basin sustainability.

Table 3-18: Cost Elements Concept 4, Participation in the Expanded South Oxnard Plain Brackish Water Treatment Project

Action	Volume	Cost per Volume	Costs In a Given Year (\$ 2024)	Years Where Cost Occurs
Annualized Capital Costs	NA	NA	\$16,965,636	Years 17-36
Water Purchase (AF)	4000	2100	\$8,400,000	Years 20-40
Out of Basin Premium (AF)	800	2100	\$1,680,000	Years 20-40
Pump Station Power (kWh)	2091187	0.35	\$731,916	Years 20-40
Booster Station Power (kWh)	1568390	0.35	\$548,937	Years 20-40
O&M Costs Pump Stations and Pipeline	NA		\$1,579,212	Years 20-40

Table 3-19: Present Value Concept 4, Participation in the Expanded South Oxnard Plain Brackish Water Treatment Project

Base Year:		2024		Construction:			Years 15-17
Soft Costs		N/A		Project Operates:			Years 20-40
				Loan Payments:			Years 17-36
Amortized Loan Rate		4.60%	Assumes 20 year loan				
Real Discount Rate:		2.10%	Office of Management and Budget Circular A-94, updated January				
							Present Value
Near-Term Yield (Year 1-6)		NA	Near-Term Costs (Year 1-6)		NA	NA	
Mid-Term Yield (Year 7-21)		4000	Mid-Term Costs (Year 7-21)		75,029,553	18,757	
Long-Term Yield (Year 22-41)		80000	Long-Term Costs (Year 22-41)		277,544,393	3,469	
Year	Initial Costs (\$)*	Annual Costs (\$) *	Production Costs (\$)*	Total Costs (\$)	Cost Factor	Present Value (\$)**	
0		0	0	0	0	0	
1	0	0	0	0	1.000	0	
2	0	0	0	0	0.979	0	
3	0	0	0	0	0.958	0	
4	0	0	0	0	0.938	0	
5	0	0	0	0	0.919	0	
6	0	0	0	0	0.899	0	
7	0	0	0	0	0.880	0	
8	0	0	0	0	0.862	0	
9	0	0	0	0	0.844	0	
10	0	0	0	0	0.826	0	
11	0	0	0	0	0.809	0	
12	0	0	0	0	0.792	0	
13	0	0	0	0	0.775	0	
14	0	0	0	0	0.759	0	
15	0	0	0	0	0.743	0	
16	0	0	0	0	0.727	0	
17	16,965,636	0	0	16,965,636	0.712	12,080,730	
18	16,965,636	0	0	16,965,636	0.697	11,827,036	
19	16,965,636	0	0	16,965,636	0.682	11,578,666	
20	16,965,636	12,940,064	0	29,905,700	0.668	19,981,360	
21	16,965,636	12,940,064	0	29,905,700	0.654	19,561,759	
22	16,965,636	12,940,064	0	29,905,700	0.640	19,150,958	
23	16,965,636	12,940,064	0	29,905,700	0.627	18,748,788	
24	16,965,636	12,940,064	0	29,905,700	0.614	18,355,063	
25	16,965,636	12,940,064	0	29,905,700	0.601	17,969,607	
26	16,965,636	12,940,064	0	29,905,700	0.588	17,592,245	
27	16,965,636	12,940,064	0	29,905,700	0.576	17,222,808	
28	16,965,636	12,940,064	0	29,905,700	0.564	16,861,120	
29	16,965,636	12,940,064	0	29,905,700	0.552	16,507,045	
30	16,965,636	12,940,064	0	29,905,700	0.540	16,160,397	
31	16,965,636	12,940,064	0	29,905,700	0.529	15,821,029	
32	16,965,636	12,940,064	0	29,905,700	0.518	15,488,787	
33	16,965,636	12,940,064	0	29,905,700	0.507	15,163,520	
34	16,965,636	12,940,064	0	29,905,700	0.496	14,845,089	
35	16,965,636	12,940,064	0	29,905,700	0.486	14,533,342	
36	16,965,636	12,940,064	0	29,905,700	0.476	14,228,140	
37	0	12,940,064	0	12,940,064	0.466	6,027,168	
38	0	12,940,064	0	12,940,064	0.456	5,900,598	
39	0	12,940,064	0	12,940,064	0.446	5,776,685	
40	0	12,940,064	0	12,940,064	0.437	5,655,375	
41	0	12,940,064	0	12,940,064	0.428	5,536,612	
	339,312,725	284,681,407	0	623,994,132		352,573,946	

3.2.6 Desalination

3.2.6.1 Project Description

OceanWell Water Farm 1 (WF1) is a proposed subsea desalination project intended to provide a drought-resilient water supply for agencies in Southern California that rely heavily on SWP deliveries. The concept involves placing reverse osmosis treatment pods approximately 4.5 miles offshore at a depth of about 400 meters. At this depth, natural hydrostatic pressure assists in forcing seawater through membranes, reducing energy requirements compared to conventional onshore desalination. Freshwater produced offshore will be pumped to shore for conditioning and distribution. Salts and marine organisms remain in the ocean, which minimizes brine discharge and associated environmental impacts. See also Figure 3-4. ***While OceanWell is referenced in this report, there may be similar offshore ocean desalination technologies that could be pursued as an alternative.***

WF1 is planned to begin with a small number of pods and expand in phases to up to 50 MGD, equivalent to about 56,000 AFY. Four agencies including Las Virgenes Municipal Water District, Calleguas Municipal Water District, Los Angeles County Waterworks District 29, and LADWP could receive water directly. Additional participants would obtain supply through Metropolitan's Interagency Local Supply Exchange Program (ILSEP). This approach is intended to improve regional reliability and reduce vulnerability to imported water shortages.

Onshore infrastructure will include a landfall site near Malibu for disinfection, pH and alkalinity adjustment, and fluoridation. Conveyance facilities will consist of a new 48-inch pipeline through Malibu Canyon to connect with the Las Virgenes backbone system, two or more major pump stations, and an intermediate tank to manage hydraulic grade and surge pressures. Additional facilities will enable deliveries eastward via the Malibu Feeder to Metropolitan's Sepulveda Feeder, with optional improvements for Pacific Palisades and West Valley connections. Estimated capital cost for onshore facilities is approximately \$700 million, with operating costs near \$64 million per year. Offshore operations along with delivery are expected to result in a per unit cost of ~\$2,500 per AF. Onshore infrastructure and operations are expected to result in a per unit cost of ~\$1,650 per AF. The total per unit cost for water produced by WF1 is ~\$4,150 USD/AF (for a 50 MGD system).

Project implementation will be phased. Early phases will focus on serving District 29 and enabling deliveries to the Sepulveda Feeder. Later phases will complete the Malibu Canyon pipeline and connections to LVMWD, Calleguas, and LADWP. Offshore technology testing and demonstration projects are scheduled through 2027, with construction readiness targeted for as early as 2028. A Joint Powers Authority is expected to finance and operate the onshore facilities and manage contractual arrangements with OceanWell for water delivery. Additional studies will be required to refine hydraulic modeling, confirm environmental compliance, and finalize cost allocations among participants. Water delivery to LVMWD would not be anticipated until 2035 at the earliest.

Figure 3-4: OceanWell Concept

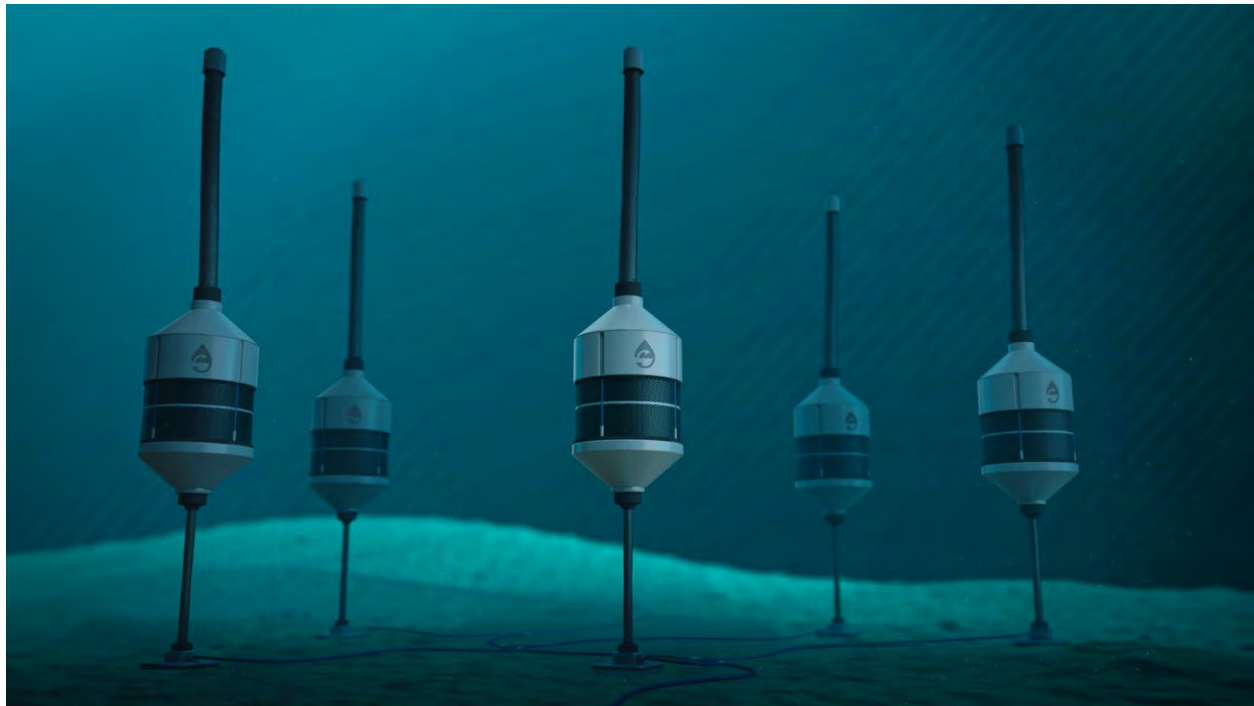


Table 3-20: OceanWell Project Summary

Metric	Detail
Potential Yield	~3,300 AFY by 2035 (Phase 5)
Infrastructure Needed	Offshore subsea RO pods at ~400 m depth; landfall site near Malibu for disinfection and conditioning; 48-inch Malibu Canyon pipeline; two major pump stations (Malibu and Rancho); intermediate tank; West LA pump station and discharge pipeline; optional Palisades pump station; pressure-reducing and interconnection facilities in West Valley; onshore chemical storage and treatment systems
Timeline to Implement	Phase 0: Functional testing 2027–2028; Phase 1: Pilot testing 2028–2029; Phase 2: District 29 supply 2029–2031; Phase 3: West LA connection 2030–2031; Phase 3A: Palisades optional ~2031; Phase 4: Las Virgenes and Calleguas connection 2031–2033; Phase 5: West Valley connection and full capacity 2034–2035
Costs	Estimated onshore capital cost: ~\$700 million; Annual operating cost: ~\$64 million; Unit water cost: ~\$4,150 per AF.

Section 4: Screening of Concepts

This section describes the approach used to vet concepts, with a focus on the screening criteria.

4.1 Development of Concept Screening

As described earlier, this study is using a stakeholder process to identify, evaluate, and prioritize potential water supply concepts. Potential evaluation criteria were solicited during one-on-one meetings in January 2025 and then brought to the broader stakeholder group in May 2025 for further discussion. Over the course of a three-hour workshop in May 2025, nineteen stakeholders were asked to identify evaluation and ranking criteria.

The potential evaluation criteria for stakeholder consideration included:

Ability to provide supply during a drought	Public acceptance
Cost/impact to water bills	Provision of environmental benefits
Timeline for implementation	Supply for emergency
Ability to provide new core water supplies	Verified efficacy
Environmental impacts	Local control

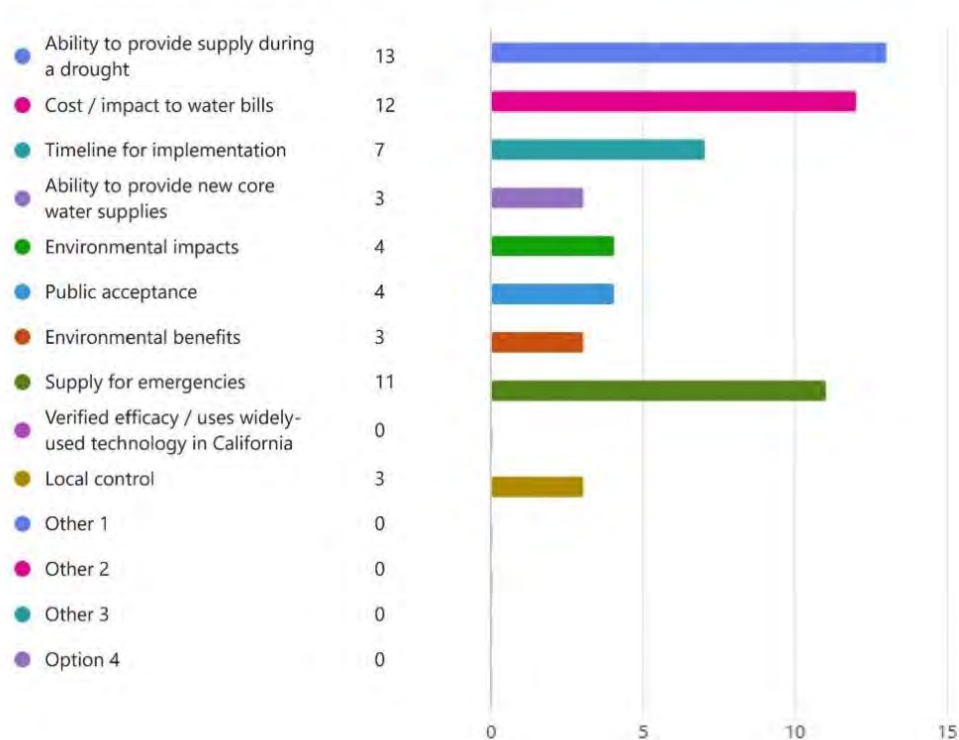
4.1.1 Stakeholder Selected Criteria

Stakeholders were given the opportunity to add evaluation criteria for group consideration. The stakeholders were then asked to break into groups to discuss the evaluation criteria and then prepare a scorecard for the potential evaluation criteria. Each group summarized their discussion on evaluation criteria and then reported out what their group considered the most important evaluation criteria for future water supplies. After all groups had presented to the general stakeholder audience, a poll was taken to select the top evaluation criteria. Poll results are shown in Figure 4-1. As can be seen in Figure 4-1, priorities for the stakeholders include: ability to provide supply during a drought, cost/impact to bills, supply for emergencies, and timeline for implementation.

Figure 4-1: Results of Stakeholder Poll, “Select the Evaluation Criteria”



1. Select the Evaluation Criteria.



During review of the concepts and other opportunities, the consultant team and LVMWD staff identified other criteria for Stakeholder consideration. Those criteria being:

Diversifying core water supplies. This criteria means not just responding to drought or other emergencies, but providing a new supply independent of the supplies currently available. Diversifying the supply moves away from dependence on one source and incorporating both regional and local solutions. This meets the old adage of not having all eggs in one basket. If something happens to one supply there are still other pieces of the portfolio available.

Operational Flexibility. This criteria evaluates if a given project is within LVMWD's control to independently pursue and does not require adoption of new policies or acceptance of new technologies.

Adaptability. This evaluates if a given solution can be implemented in a stepwise manner overtime as yield from other supplies are understood and as demand trends in the service area change.

The Stakeholders met again to discuss and debate criteria in February 2024. Ultimately the criteria selected by the Stakeholders were:

Diversifying Core Water Supplies	Operational Flexibility
Providing Drought Supply	Adaptability
Cost/Impacts to Bills	Timeline for Implementation
Providing local Supplies	

Table 4-1 provides an initial screening against the stakeholder evaluation criteria for each of the concepts.

Table 4-1: Initial Screening Water Supply Diversification Concepts Against Stakeholder Criteria

Concept	Evaluation Criteria						
	<i>Diversify Core Water Supplies</i>	<i>Provide Drought Supply</i>	<i>Cost/ Impact to Water Bills</i>	<i>Provide Local Supply</i>	<i>Operational Flexibility</i>	<i>Adaptability</i>	<i>Timeline for Implementation</i>
1 Rooftop Capture and Reuse	Does not provide new potable water supply but does provide offset to potable demands.	Does not provide drought supply. Does provide temporary offset to potable demands. Could only provide any meaningful supply if widely implement.	\$49,812/AF	Local supply that does provide temporary offset to potable demands. Could only provide any meaningful supply if widely implement.	Implementation is left to individual property occupants. LVMWD would have no control over this source.	This is an adaptable program. Rebates could be targeted to property owners that have interest and rebates increased to capture the interest of more property owners as desired.	At least 10 years needed to achieve full implementation.
2A Groundwater Banking Partnership Irvine Ranch Water District	Does not benefit core water supplies. Limited to periods with Metropolitan operating under supply allocation.	Yes, provides drought supply.	\$3,941 to \$5,343/AF	Not a local supply. Could only provide supply during droughts.	Operations are limited to when MWD has implemented its allocation plan	Very adaptable. Groundwater banking options can be purchased in different increments overtime.	Approximately 3 years.
2B Participation in Semitropic Water Bank	Not scored	Not scored	Not scored	Not scored	Not scored	Not scored	Not scored

Table 4-1. cont.

Concept	Evaluation Criteria						
	<i>Diversify Core Water Supplies</i>	<i>Provide Drought Supply</i>	<i>Cost/ Impact to Water Bills</i>	<i>Provide Local Supply</i>	<i>Operational Flexibility</i>	<i>Adaptability</i>	<i>Timeline for Implementation</i>
2C Participation in Silvertip Water Reliability Program	Does not benefit core water supplies. Limited to periods with Metropolitan operating under supply allocation.	Yes, provides drought supply.	\$2,988 to 4,512/AF	Not a local supply. Could only provide supply during droughts.	Operations are limited to when MWD has implemented its allocation plan.	Very adaptable. Participation can be purchased in different increments overtime.	Some benefit within the first year, full benefits after 10 years.
3 Participation in WRIST Program – Local Groundwater Banking	As conceived LVMWD would rely on receiving water via exchange. This would limit this to a drought or shortage supply and not benefit core supplies.	Yes, provides drought supply. Could provide supply under a range of conditions.	\$3,694/ to \$4,245/AF	Not a true local supply. Since delivery of supply depends on exchange with SWP water, damage to SWP facilities or MWD facilities could limit use of this supply.	Project requires coordination with multiple other agencies and requires multiple agreements that would limit LVMWD's flexibility in how much supply to utilize in what schedule.	Adaptability of this concept is uncertain. Depending on if and how groundwater banking policies are established in the Oxnard Plain Groundwater Basin this could be an adaptable program whereby LVMWD can participate in different timeframes and different water volumes.	Approximately 12 years.

Table 4-1. cont.

Concept	Evaluation Criteria						
	<i>Diversify Core Water Supplies</i>	<i>Provide Drought Supply</i>	<i>Cost/ Impact to Water Bills</i>	<i>Provide Local Supply</i>	<i>Operational Flexibility</i>	<i>Adaptability</i>	<i>Timeline for Implementation</i>
4 Participation in the Expanded South Oxnard Plain Brackish Water Treatment Project	This project could be configured in a way to benefit core local water supplies.	Provide drought supply. Could provide supply under a range of conditions.	\$4,420 to \$4,296/AF	A near local supply. Could provide supply under a range of conditions. Would provide water through direct pipeline connection controlled by LVMWD.	Difficult to implement. Many elements, including needed groundwater policies, are outside of LVMWD's authority.	Moderately adaptable. LVWMD could purchase different volumes at different times. However, this concept would require building an approximately 21-mile pipeline. Expensive infrastructure that cannot be done in phases or resized after installation.	Approximately 20 years.
Desalination (based on OceanWell)	Would provide new core water supplies that would also benefit drought supplies.	Would provide new core water supplies that would also benefit drought supplies.	\$3,396 to 4,510	This would be a near local supply. Could provide supply under a range of conditions. Could provide water even if SWP delivery infrastructure damaged.	Would provide water through direct pipeline connection controlled by LVMWD.	LVMWD would need to commit to purchasing a set amount of water. While the in ocean infrastructure is modular, the conveyance to LVMWD is an expensive pipeline which cannot be phased.	Approximately 10 years

4.2 Scoring Approach

The rest of this section is devoted to scoring concepts to see which concepts are desirable to add to LVWMD's portfolio. In this methodology a higher score means a concept better fits the criteria. Each concept is scored in two ways, first against the other concepts and second against the status quo.

The scoring relative to other concepts has the following quantification:

Primary Scoring

8	Clearly the concept that best addresses the criteria
6	The concept addresses the criteria but is not the best performer
4	The concept meets the intent of the criteria
0	The concept does not address the criteria

Secondary Scoring

-2	There are significant technical or institutional challenges related to achieving the concept's potential. Does not apply when primary score less than 4.
-1	There are technical or institutional challenges to achieving concept potential. Does not apply when primary score less than 4.

The scoring relative to the status quo has the following quantification:

Primary Scoring

5	Concept clearly outperforms the status quo
4	Concept likely outperforms the status quo
3	Concept performs about the same as the status quo
0	Concept performs worse than the status quo

The stakeholders chose to give each criteria equal weight.

The scoring criteria were applied in Tables 4-3 through 4-9 below. The consultant team initially prepared the scorecard for each concept. This initial scoring was meant as a starting point to garner input from the stakeholder group. Stakeholders were provided the evaluation of concepts for review and then a four-hour workshop was held in February 2026 to get input on both concepts and the ranking of the concepts. As part of the Workshop in February 2026, Stakeholders were broken into groups and each group scored the various concepts. The final scoring presented in this report reflects the input and concerns, averaged across the different groups of Stakeholders. In May 2026 Stakeholders were asked to revisit scoring and provided input to scoring of a potential desalination concept. Because the scoring of desalination was done in a separate meeting, it was a challenge for stakeholders to consider desalination in light of all the other concepts. Stakeholders expressed concern that it was easy to skew the results to be more favorable to desalination when there was no comparison to the drought supplies made available by other concepts, the cost of other concepts, adaptability, and project timeline.

In the scoring done by Stakeholders the concepts overall score was as follows in Tables 4-9 to 4-8.

Table 4-2: Scorecard Concept 1 Rooftop Capture of Stormwater

	<i>Diversify Core Water Supplies</i>	<i>Provide Drought Supply</i>	<i>Cost/ Impact to Water Bills</i>	<i>Local Supply</i>	<i>Operational Flexibility</i>	<i>Adaptability</i>	<i>Timeline for Implementation</i>
Concept Relative to Other Concepts							
Primary Score	0	0	4	4	0	4	4
Secondary Score	NA	NA	-2	-2	NA	-2	-2
Justification of Score	The supply made available by this source is non-potable and could not replace any core water supplies	The supply source for this project is captured stormwater stored onsite. The storage only occurs following periods of rainfall. The project could not provide supply in a multi-year drought. Maintenance is left to homeowner.	The concept requires installing a significant amount of infrastructure on private homes and business. The rebate needed to encourage widespread participation in the program is uncertain. LVMWD has little control over project outcome.	The supply source for this project is captured stormwater stored onsite. This is a local supply. The supply is seasonal and non-potable.	Implementation is left to individual property occupants. LVMWD would have no control over this source.	LVMWD could adjust the rebate value and cap the number of rebates to adjust the participation in this project.	The project could see benefits in early years of implementation. But full benefits are unlikely to be achieved even in the long-term.
Concept Relative to Status Quo							
Score	Not scored	0	0	0	0	0	0
Justification of Score	Not scored	The supply source for this project is captured stormwater stored onsite. The storage only occurs following periods of rainfall. The status quo, imported water, while impacted by drought, can provide some water during drought.	Even considering the long-term increase in imported water costs, the cost of this concept, per AF, is much higher.	The supply source for this project is captured stormwater stored onsite. The project may offset irrigation demands but does not provide potable water. While imported water is not "local", LVMWD does have multiple connections to move imported water to its service area.	Implementation is left to individual property occupants. LVMWD has greater operational control over imported water than this project.	LVMWD has option to adjust the volume of imported water purchased and the imported supply is more adaptable than Concept 1.	Imported water is a current supply available to LVMWD where Concept 1 is not.
Final Score Per Criteria	0	0	2	2	0	2	2
Cumulative Score:				8			

Table 4-3: Scorecard Concept 2A Groundwater Banking Partnership with Irvine Ranch Water District

	<i>Diversify Core Water Supplies</i>	<i>Provide Drought Supply</i>	<i>Cost/ Impact to Water Bills</i>	<i>Local Supply</i>	<i>Operational Flexibility</i>	<i>Adaptability</i>	<i>Timeline for Implementation</i>
Concept Relative to Other Concepts							
Primary Score	0	6	6	0	4	6	6
Secondary Score	NA	0	0	NA	0	0	
Justification of Score	This project makes supplies available only during drought and would not diversify core water supplies.	This project would result in storage or water for later recovery during drought. This project has defined mechanisms and infrastructure needed to deliver water during a drought.	This concept does not require costly infrastructure. This project does require purchasing water for groundwater banking.	This is not a local supply.	Operations are limited to when MWD has implemented its allocation plan.	LVMWD could make arrangements to have different volumes of banked groundwater available. Little to no infrastructure needed.	The project could be implemented and see full benefits within three years.
Concept Relative to Status Quo							
Score	Not scored	5	0	3	4	3	0
Justification of Score		Since this is a dedicated drought source it would perform better in a drought than the SWP whose allocation has been as low as 5%.	The cost of this program is expected to be higher than that of imported water.	Both imported water and this project involve moving water from distant areas.	Operations are limited to when MWD has implemented its allocation plan.	The project is limited to providing supply during droughts, but during drought LVMWD would have ability to adjust volume of water delivered.	Imported water is a current supply available to LVMWD where Concept 2A is not.
Final Score Per Criteria	0	11	6	3	8	9	6
Cumulative Score:				43			

Table 4-4: Scorecard Concept 2B Participation in Semitropic Water Bank

	<i>Diversify Core Water Supplies</i>	<i>Provide Drought Supply</i>	<i>Cost/ Impact to Water Bills</i>	<i>Local Supply</i>	<i>Operational Flexibiliy</i>	<i>Adaptability</i>	<i>Timeline for Implementation</i>
Concept Relative to Other Concepts							
Primary Score				Not scored			
Secondary Score				Not scored			
Justification of Score							
Concept Relative to Status Quo							
Score							
Justification of Score				Not scored			
Final Score Per Criteria							

Table 4-5: Scorecard Concept 2C Participation in Silvertip Water Reliability Program

	<i>Diversify Core Water Supplies</i>	<i>Provide Drought Supply</i>	<i>Cost/ Impact to Water Bills</i>	<i>Local Supply</i>	<i>Operational Flexibility</i>	<i>Adaptability</i>	<i>Timeline for Implementation</i>
Concept Relative to Other Concepts							
Primary Score	0	8	8	0	4	6	6
Secondary Score	NA	0	0	NA	0	0	
Justification of Score	This project makes supplies available only during drought and would not diversify core water supplies.	This project would result in storage or water for later recovery during drought. This project has defined mechanisms and infrastructure needed to deliver water during a drought.	Lowest cost option identified. This concept does not require costly infrastructure. This project does require purchasing water for groundwater banking.	This is not a local supply.	Operations are limited to when MWD has implemented its allocation plan.	LVMWD could make arrangements to have different volumes of banked groundwater available. Little to no infrastructure needed.	The project could be implemented and see full benefits within three years.
Concept Relative to Status Quo							
Score	Not scored	5	0	3	4	3	0
Justification of Score	Not scored	Since this is a dedicated drought source it would perform better in a drought than the SWP whose allocation has been as low as 5%.	The cost of this program is expected to be higher than that of imported water.	Both imported water and this project involve moving water from distant areas.	Operations are limited to when MWD has implemented its allocation plan.	The project is limited to providing supply during droughts, but during drought LVMWD would have ability to adjust volume of water delivered.	Imported water is a current supply available to LVMWD where Concept 2C is not.
Final Score Per Criteria	0	13	8	3	8	9	6
Cumulative Score:				47			

Table 4-6: Scorecard Concept 3 Participation in WRIST Program – Local Groundwater Banking

	<i>Diversify Core Water Supplies</i>	<i>Provide Drought Supply</i>	<i>Cost/ Impact to Water Bills</i>	<i>Local Supply</i>	<i>Operational Flexibility</i>	<i>Adaptability</i>	<i>Timeline for Implementation</i>
Concept Relative to Other Concepts							
Primary Score	4	4	4	4	6	4	4
Secondary Score	0	-2	0	-2	-2	-2	-2
Justification of Score	The project could provide supply under a range of conditions and could benefit core water supplies. But the project delivers water through SWP exchange rather than direct connection and this is not a true diversification of supply.	The project could provide supply under a range of conditions, including drought. But the project delivers water through SWP exchange rather than direct connection and this could limit drought year deliveries. Project requires policies not yet in place in the Oxnard Plain groundwater basin.	The project relies on costly infrastructure for water treatment. More expensive than other concepts per AF.	This project does involve producing water locally but the water is received through SWP exchange rather than direct connection. Project requires policies not yet in place in the Oxnard Plain groundwater basin.	Project requires coordination with multiple other agencies and requires multiple agreements that would limit LVMWD's flexibility in how much supply to utilize in what schedule.	LVMWD could make arrangements to have different volumes of banked groundwater available.	The timeline before project benefit is long. Given lack of needed policies the timeline is uncertain.
Concept Relative to Status Quo							
Score	Not scored	5	0	3	3	0	0
Justification of Score	Not scored	The water source is recycled water. Concept is expected to have better reliability in drought than imported water, whose allocation has been as low as 5%.	The cost of this program is expected to be higher than that of imported water.	Both imported water and this project involve receiving water from the same infrastructure.	Both imported water and this project involve receiving water from the same infrastructure.	Project is mechanism to acquire more imported water and has similar adaptability as imported water.	Imported water is a current supply available to LVMWD where Concept 3 is not.
Final Score Per Criteria	4	7	4	5	7	2	2
Cumulative Score:				31			

Table 4-7: Scorecard Concept 4 Participation in Expanded South Oxnard Plain Brackish Water Treatment Project

	<i>Diversify Core Water Supplies</i>	<i>Provide Drought Supply</i>	<i>Cost/ Impact to Water Bills</i>	<i>Local Supply</i>	<i>Operational Flexibility</i>	<i>Adaptability</i>	<i>Timeline for Implementation</i>
Concept Relative to Other Concepts							
Primary Score	8	6	4	6	4	4	4
Secondary Score	-2	-2	0	-2	-2	-2	-2
Justification of Score	The project provides a supply different from existing core supplies. Project requires policies not yet in place in the Oxnard Plain groundwater basin.	The project could provide supply under a range of conditions, including drought. Project does include a direct connection for delivery. Project requires policies not yet in place in the Oxnard Plain groundwater basin.	The project relies on costly infrastructure for water conveyance. More expensive than other concepts per AF.	The project produces local water. Project requires policies not yet in place in the Oxnard Plain groundwater basin.	Project requires coordination with multiple other agencies and requires multiple agreements that would limit LVMWD's flexibility in how much supply to utilize in what schedule.	LVMWD could make arrangements to have different volumes of water available. Adaptability limited by pipeline infrastructure which could not be built in phases.	The timeline before project benefit is long. Given lack of needed policies the timeline is uncertain.
Concept Relative to Status Quo							
Score	Not scored	5	0	4	0	0	0
Justification of Score	Not scored	The water source is desalter water. Concept is expected to have better reliability in drought than imported water, whose allocation has been as low as 5%.	The cost of this program is expected to be higher than that of imported water.	The infrastructure, both treatment and conveyance will be in local area. Project will have direct connection to LVMWD and does not rely on SWP exchange.	Would provide water through direct pipeline connection controlled by LVMWD. Could act as interconnection with WWD29.	LVMWD would need to commit to purchasing a set amount of water. The conveyance to LVMWD is an expensive pipeline which cannot be phased.	Imported water is a current supply available to LVMWD where Concept 4 is not.
Final Score Per Criteria	6	9	4	8	2	2	2
Cumulative Score:				33			

Table 4-8: Scorecard Desalination

	<i>Diversify Core Water Supplies</i>	<i>Provide Drought Supply</i>	<i>Cost/ Impact to Water Bills</i>	<i>Local Supply</i>	<i>Operational Flexibility</i>	<i>Adaptability</i>	<i>Timeline for Implementation</i>
Concept Relative to Other Concepts							
Primary Score	7	8	4	7	7	5	6
Secondary Score	-1	-2	0	-2	-2	0	-2
Justification of Score	There are significant technical or institutional challenges related to achieving the concept's potential.	The project could provide supply under a range of conditions, including drought. Project does include a direct connection for delivery.	The project relies on costly infrastructure for water conveyance. More expensive than other concepts per AF.	The project produces local water.	LVMWD would be required to buy a set amount of water but could exchange that water with others if not needed.	LVMWD could make arrangements to have different volumes of water available. Adaptability limited by pipeline infrastructure which could not be built in phases.	The timeline before project benefit is long.
Concept Relative to Status Quo							
Score	Not scored	4	4	5	4	4	3
Justification of Score	Not scored	Concept is expected to have better reliability in drought than imported water, whose allocation has been as low as 5%.	The cost of this program is expected to be similar to that of imported water.	The infrastructure, both treatment and conveyance will be in local area. Project will have direct connection to LVMWD and does not rely on SWP exchange.	Would provide water through direct pipeline connection. Could act as interconnection with WWD29.	LVMWD would need to commit to purchasing a set amount of water. The conveyance to LVMWD is an expensive pipeline which cannot be phased. But water could be exchanged if not needed.	
Final Score Per Criteria	6	10	8	10	9	9	7
Cumulative Score:				59			

4.3 Theme Based Ranking

Table 4-8 presents the results of the ranking for the various concepts against the seven criteria selected by stakeholders. Conditional shading is applied to illustrate top scoring/top ranking projects in GREEN and bottom scoring projects in RED. Table 4-9 acts as a sensitivity analysis, showing what concepts rise to the top when one criteria is maximized but fall to the bottom when another objective is maximized. The ranking clearly favors the concepts related to distant groundwater banking (Concepts 2a and 2c) and desalination. When considering Table 4-9, the reader is reminded that, given that desalination was evaluated in a separate meeting, there is concern that the scores for desalination may skew too high.

Table 4-9: Concept Ranking Based on Stakeholder Criteria

	<i>Diversify Core Water Supplies</i>	<i>Provide Drought Supply</i>	<i>Cost/ Impacts to Water Bills</i>	<i>Local Supplies</i>	<i>Operational Flexibility</i>	<i>Adaptability</i>	<i>Timeline</i>
Highest Ranked Concept	Concept 4	Concept 2c	Concept 2c	Concept 4	Desalination / OceanWell	Desalination / OceanWell	Desalination / OceanWell
	Desalination / OceanWell	Concept 2a	Concept 2a	Desalination/ OceanWell	Concept 2a	Concept 2a	Concept 2a
	Concept 3	Concept 4	Desalination/ OceanWell	Concept 2a	Concept 2b	Concept 2c	Concept 2c
	Concept 2a	Desalination/ OceanWell	Concept 4	Concept 2c	Concept 3	Concept 3	Concept 1
	Concept 2c	Concept 3	Concept 3	Concept 3	Concept 4	Concept 4	Concept 3
Lowest Ranked Concept	Concept 1	Concept 1	Concept 1	Concept 1	Concept 1	Concept 1	Concept 4

Concept 1 – Rooftop Capture Stormwater

Concept 2 – Distant Bank

2A – Groundwater Banking Participation IRWD

2C – Groundwater Banking Participation in Silvertip Water Reliability Program

Concept 3 – Participation in WRIST Program Local Groundwater Banking

Concept 4 – Participation in the Expanded Oxnard Plain Brackish Water Treatment Facility

Desalination/Oceanwell – being evaluated separate from this study

4.4 Findings

The concepts and their cumulative scores across all criteria are shown below:

Table 4-10: Concept Cumulative Scores and Ranking

<i>Project</i>	Cumulative Score	Rank
<i>Desalination</i>	59	1
<i>Concept 2c Participation in Silvertip Water Reliability Program</i>	47	2
<i>Concept 2a Groundwater Banking Partnership with Irvine Ranch Water District</i>	43	3
<i>Concept 4 Participation in Expanded South Oxnard Plain Brackish Water Treatment Project</i>	33	4
<i>Concept 3 Participation in WRIST Program - Local Groundwater Banking</i>	31	5
<i>Concept 1 Rooftop Capture of Stormwater</i>	8	6
<i>Concept 2b Participation in Semitropic Water Bank</i>	Not scored	

As is demonstrated in Table 4-10, the cumulative score for Concept 1 was significantly lower than the other concepts. Concept 1 was disadvantaged in the scoring criteria because it did not provide drought supply, did not provide potable supply, and its benefits to water supply required extensive implementation largely outside of LVMWD control.

Stakeholder Input

In a poll, Stakeholders “Agreed” that Rooftop capture is not feasible from a cost standpoint for inclusion in a water supply portfolio but should be considered as part of a separate water savings program as an option for customers to reduce demand on the system/reduce their water bill.

Desalination and the groundwater banking projects outside of Los Angeles and Ventura Counties (Concepts 2a and 2c) are the best performing concepts with the highest cumulative score across criteria.

Only one of the concepts, Concept 4, along with Desalination, had any benefit to “Diversifying Core Water Supplies”. Unfortunately Desalination via OceanWell relies on technology and processes that are not yet demonstrated in Southern California and has a long implementation timeframes. However, depending on the feasibility and resulting costs, use of desalination technology such as that proposed for OceanWell or participation in Concept 4 could benefit core water supplies.

The study did identify solid concepts that could provide drought supply. Concepts 2a and 2c have a focus of providing drought supply, are relatively low cost as they do not require extensive new infrastructure, and can be implemented relatively quickly as institutional arrangements are all in place. The groundwater banking concepts were also high scoring concepts relative to

“Cost”, “Ease of Implementation”, “Operational Flexibility”, “Adaptability”, and “Timeline”. Across Concept 2a and 2c are variations in terms, such as leave behind provisions, requirement to reserve storage space, and transaction fees. Varying the length of time water is held in storage before use, the volume of water stored, and the volume of water used during drought varies the cost per AF of the concepts. The construct of this analysis assumes 4,000 AF could be needed in any drought year and drought years occur five times in any twenty-year period. Given this construct Concept 2c is recommended to supplement the LVMWD portfolio. However, Concepts 2a, and 2c do not score well with regards to “local” supply. This is problematic in the event of a major earthquake that could damage the California Aqueduct or any other infrastructure on the SWP, making access to these supplies unavailable. During Stakeholder Workshop 3, Stakeholders did raise concerns with Concept 2c that were not captured in the criteria. Concerns related to the relative short history of Silvertip Investments as an entity and particularly as a private entity. As a private entity the health of the business, finances, and decision-making are less transparent that would occur with a public entity. Stakeholders were concerned that there was less protections to an investment made with a private entity than would occur with an investment with a public entity.

Stakeholder Input

Stakeholders expressed concern over making significant investments with a private groundwater banking entity relative to making investments with a public entity.

Section 5: Portfolio Options and Recommendations

This section reviews options available to LVMWD and the recommended actions LVMWD should take to improve the water supply portfolio.

5.1 Considerations in Developing a Water Supply Portfolio

In developing a water supply portfolio it is necessary to look at current assets and infrastructure, estimated demands, performance of different supplies in normal and drought conditions, agreements and obligations, water quality needs, stakeholder acceptance, and cost.

LVMWD's current potable water supply comes almost entirely from Metropolitan Water District. LVMWD has obligations as a Metropolitan Water District member agency. As such any supply portfolio for LVMWD will include Metropolitan water. LVMWD is in the process of building the Pure Water Project. LVMWD needed to find a way to beneficially reuse water and limit discharges to Malibu Creek. LVMWD has put in significant effort toward the Pure Water project and therefore Pure Water will be a part of any LVMWD portfolio. The Pure Water supply estimates are based on current best estimates of excess supplies of treated wastewater (Title 22 water), future conservation of Title 22 water that can be freed up for potable reuse, and supply augmentations from urban runoff/storm capture. This supply should be maximized to the greatest extent possible since it would yield a lower melded portfolio cost. In 2030, this available supply corresponds to 1,470 AFY for LVMWD and 3,500 AFY in the mid and long-term.

The potential amount of desalination supply is based on health and safety supply (35 gpcd) in the year 2030 for a population of 82,296, which equates to the 3,300 AFY (rounded up). Prior to locking in the supply amount, consideration should be made whether to base the supply amount on ultimate population (2065), which would be closer to 4,700 AFY. Keeping this supply to a minimum results in a lower melded portfolio cost since it is relatively high in cost.

The amount of water that could be utilized from a distant groundwater bank is flexible. However, Metropolitan limits use of their conveyance and treatment facilities to just those supplies needed to meet a drought and just in those periods when that agency has implemented its Water Supply Allocation Plan. For this reason, distant groundwater banking can only be used as a drought supply and only to supplement shortfalls in Metropolitan supplies.

In developing a water supply portfolio three different timeframes (near-term, mid-term, and long-term) and two hydrologic conditions are considered: normal year and drought year.

- Normal year. All normal year portfolios include Pure Water. The amount of imported water from Metropolitan will vary dependent on how cost effective the Metropolitan supply is relative to other normal year supply options (desalination and/or Concept 4). Desalination was ranked as a desirable option by Stakeholders and in portfolios developed in this study, Metropolitan water is included in the portfolio as needed to meet demand after accounting for Pure Water and desalination. As documented in earlier sections, Metropolitan water is expected to be one of the more expensive normal year supply sources, so its use is minimized to the extent feasible. LVMWD does want to keep Metropolitan supplies in the portfolio; this diversifies supplies and ensures that

LVMWD does not become overly dependent on any single source of supply. Each supply has its own reliability issues (e.g., failure of a pipeline that conveys desalinated water) and risk is ameliorated with multiple sources.

- Drought year: All drought year portfolios include Pure Water. The amount of imported water will vary dependent on: (a) the amount of Metropolitan water available and (b) how cost-effective Metropolitan supply is relative to other drought supplies. In past droughts Metropolitan has curtailed supplies significantly. This study assumes in future droughts Metropolitan would curtail deliveries to LVMWD to 50 percent of what has been supplied during recent normal years. Once the Sepulveda Pass Stage 1 project is completed Metropolitan could curtail supplies by 50% but with an additional 750 AFY (by 2030). Once the Sepulveda Pass Stage 2 project and other Metropolitan improvements occur (Pure Water Southern California) Metropolitan could curtail supplies by 50% but with an additional 2,750 AFY (by 2045). MWD supplies could become more reliable than assumed in this study if the Delta Conveyance Project and Sites Reservoir are constructed and subsidence on the California Aqueduct is addressed. The MWD supplies in this report do not reflect these improvements.

A portfolio that consists of more supply sources (e.g. 4 supply sources versus 3) is preferred so that there is greater diversification. Greater diversification inherently reduces the risk of severe shortages if a single supply source does not deliver or falls short of delivering what was planned. However, too many supply sources (e.g. 6 versus 4) could result in inefficiencies and diminishing returns that can lead to higher melded portfolio costs. For this reason, an ultimate long-term supply portfolio consisting of MWD, Pure Water, Desalination (or alternative local groundwater via a desalter), and distant or local groundwater banking that can be drawn from during droughts and other water shortage events, should be pursued.

5.2 Options Available in the Near Term (by 2030)

In the near term LVMWD could continue with the status quo or add distant groundwater banking options (Concepts 2A or 2C) to improve supply reliability. Figure 5-1 illustrates options available in the near term and compares them against the stakeholder criteria. What Figure 5-1 demonstrates is that there are near term options to improve water supply in drought years, but few means to improve core water supplies.

5.3 Options Available in the Mid Term (by 2045)

In the mid-term LVMWD could continue with the status quo, add distant groundwater banking (Concepts 2A or 2C), participate in local groundwater banking (Concept 3), or pursue desalination . Figure 5-2 illustrates options available by year 2045 and compares them against the stakeholder criteria. What Figure 5-2 illustrates is that there are relatively low cost means to improve supplies in a drought but improving core water supplies is more difficult and more costly. Also evident from Figure 5-2 is that while desalination may benefit core water supplies it may still be necessary to undertake extreme conservation or participate in a water bank to have adequate drought year supplies.

5.4 Options Available in the Long Term (by 2065)

In the long-term LVMWD could continue with the status quo, add distant groundwater banking (Concepts 2A or 2C), participate in local groundwater banking (Concept 3), pursue desalination, or participate in brackish water treatment with local delivery (Concept 4). Figure 5-3 illustrates options available by year 2065 and compares them against the stakeholder criteria. What Figure 5-3 shows is that there are relatively low cost means to improve supplies in a drought but improving core water supplies is more difficult and more costly. Also evident from Figure 5-3 is that while desalination or brackish water may benefit core water supplies it may still be necessary to undertake extreme conservation or participate in a water bank to have adequate drought year supplies.

Figure 5-1. Near-Term Options

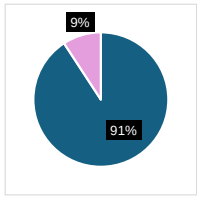
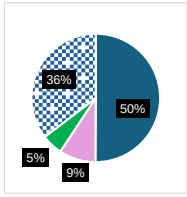
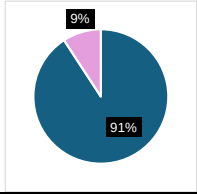
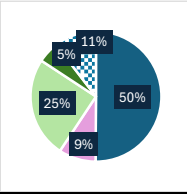
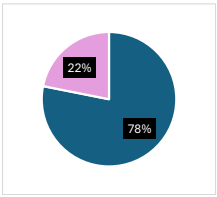
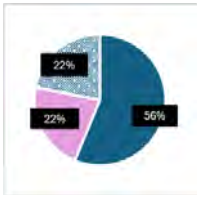
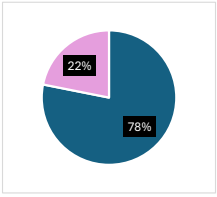
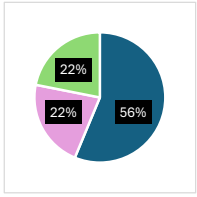
		Diversify Core Water Supplies	Provide Drought Supplies	Cost	Local Supplies	Operational Flexibility	Adaptability	Timeline
Status Quo – Normal Year. In normal year supplies would consist of 91% imported water and 9% Pure Water. 	Status Quo – Drought Year. In drought, supplies consist of imported water (50%), water from LVMWD's banking agreement with IRWD (5%), and Pure Water (9%). Supplies are insufficient and extreme conservation necessary. 	NA	Extreme conservation still necessary	\$1,892 to \$1,927/AF	Local supply from Pure Water Project	LVMWD system structured to maximize use of this water source	Agreements and infrastructure allow taking water in different increments and timeframes	NA
Additional Distant Groundwater Banking – Normal Year. Additional groundwater banking would not affect normal year supplies. In a normal year supplies would consist of 91% imported water and 9% Pure Water. 	Additional Distant Groundwater Banking – Drought Year. In drought additional groundwater banking would compensate for loss of imported water. Supplies would consist of imported water (50%), new groundwater bank (45%), existing groundwater bank (5%), and Pure Water (9%). Some conservation would be needed (11%). 	No	Yes	\$1,892 to \$2,356/AF	Local supply from Pure Water Project	Would use existing infrastructure and have similar flexibility to status quo	Agreements and infrastructure allow taking water in different increments and timeframes	< 1 year

Figure 5-2. Mid-Term Options

		Diversify Core Water Supplies	Provide Drought Supplies	Cost	Local Supplies	Operational Flexibility	Adaptability	Timeline
Status Quo – Normal Year. In normal year supplies would consist of 78% imported water and 22% Pure Water. 	Status Quo – Drought Year. In drought, supplies consist of imported water (56%), and Pure Water (22%). Supplies are insufficient and extreme conservation necessary. 	NA	Extreme conservation necessary	\$3,172 to \$3,333/AF	Local supply from Pure Water Project	LVMWD system structured to maximize use of this water source	Agreements and infrastructure allow taking water in different increments and timeframes	NA
Additional Groundwater Banking – Normal Year. Additional groundwater banking would not affect normal year supplies. In a normal year supplies would consist of 78% imported water and 22% Pure Water. 	Additional Groundwater Banking – Drought Year. In drought additional groundwater banking would compensate for loss of imported water. Supplies would consist of imported water (56%), new groundwater bank (22%), and Pure Water (22%). 	No	Yes	\$3,33 to \$3,357/AF	Local supply from Pure Water Project	Would use existing infrastructure and have similar flexibility to status quo	Agreements and infrastructure allow taking water in different increments and timeframes	< 1 year

Mid-Term Options cont.

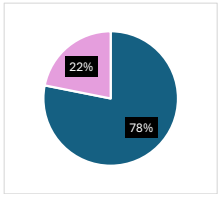
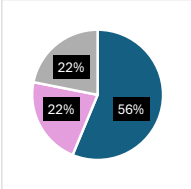
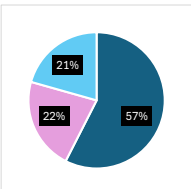
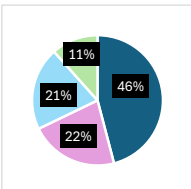
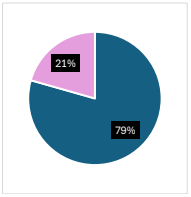
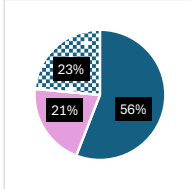
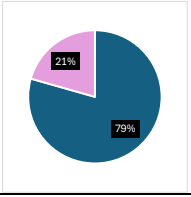
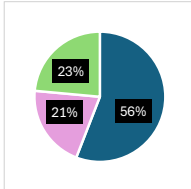
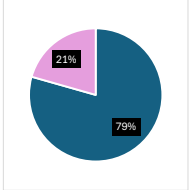
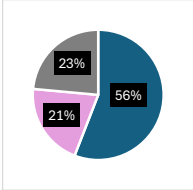
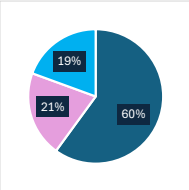
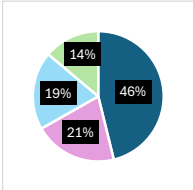
		Diversify Core Water Supplies	Provide Drought Supplies	Cost	Local Supplies	Operational Flexibility	Adaptability	Timeline
Local Groundwater Banking – Normal Year. In normal year supplies would consist of 78% imported water and 22% Pure Water. 	Local Groundwater Banking – Drought Year. In drought, supplies consist of imported water (56%), locally banked groundwater (22%) and Pure Water (22%). Supplies are sufficient. 	NA	Yes	\$3,333 to \$3,694/AF	Local supply from Pure Water Project and Ventura County Groundwater Bank	LVMWD system structured to maximize use of this water source	Agreements and infrastructure allow taking water in different increments and timeframes	~10 years
Desalination – Normal Year. Desalination offers a true replacement for imported water in a normal year. With desalination its assumed LVMWD would meet demands with a mix of 57% imported water, 22% Pure Water, and 21% desalinated water. 	Desalination – Drought Year. In this option there is less imported water than in other options. With desalination, drought supplies are anticipated to be imported water (46%), Pure Water (22%), desalinated water (21%) and distant groundwater bank 11%. 	Yes	Yes, but drought year would also need distant groundwater bank supplies	\$3,383 to \$3,396/AF	Local supply from Pure Water Project and desalination	Would require new infrastructure that limits how much water available and location of water delivery.	Agreements would frame the amount of water available.	~10 years

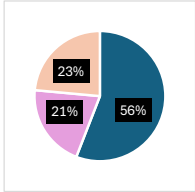
Figure 5-3 Long-Term Options

		Diversify Core Water Supplies	Provide Drought Supplies	Cost	Local Supplies	Operational Flexibility	Adaptability	Timeline
Status Quo – Normal Year. In normal year supplies would consist of 79% imported water and 21% Pure Water. 	Status Quo – Drought Year. In drought, supplies consist of imported water (meeting 56% of demand), and Pure Water (21%). Supplies are insufficient and extreme conservation necessary. 	NA	Extreme conservation necessary	\$4,712 to \$5,009/AF	Local supply from Pure Water Project	LVMWD system structured to maximize use of this water source	Agreements and infrastructure allow taking water in different increments and timeframes	NA
Additional Distant Groundwater Banking – Normal Year. Additional groundwater banking would not affect normal year supplies. In a normal year supplies would consist of 79% imported water and 21% Pure Water. 	Additional Distant Groundwater Banking – Drought Year. In drought additional groundwater banking would compensate for loss of imported water. Supplies would consist of imported water (40%), new groundwater bank (39%), and Pure Water (21%). 	No	Yes	\$4,763 to \$5,009/AF	Local supply from Pure Water Project	Would use existing infrastructure and have similar flexibility to status quo	Agreements and infrastructure allow taking water in different increments and timeframes	< 1 year

Long-Term Options cont.

		Diversify Core Water Supplies	Provide Drought Supplies	Cost	Local Supplies	Operational Flexibility	Adaptability	Timeline
Local Groundwater Banking – Normal Year. In normal year supplies would consist of 79% imported water and 21% Pure Water. 	Local Groundwater Banking – Drought Year. In drought, supplies consist of imported water (56%), locally banked groundwater (23%) and Pure Water (21%). Supplies are sufficient. 	NA	Yes	\$4,245 to \$5,009/AF	Local supply from Pure Water Project and Ventura County Groundwater Bank	LVMWD system structured to maximize use of this water source	Agreements and infrastructure allow taking water in different increments and timeframes	~10 years
Desalination – Normal Year. Desalination offers a true replacement for imported water in a normal year. With desalination it is assumed LVMWD would meet demands with a mix of 60% imported water, 21% Pure Water, and 19% desalinated water. 	Desalination – Drought Year. In this option there is less imported water than in other options. With desalination, drought supplies are anticipated to be imported water (46%), Pure Water (22%), desalinated water (19%) and distant groundwater bank 14%. 	Yes	Yes, but drought year would also need distant groundwater bank supplies	\$4,510 to \$4,655/AF	Local supply from Pure Water Project and desalination and desalination	Would require new infrastructure that limits how much water available and location of water delivery.	Agreements would frame the amount of water available.	~ 10 years

Long-Term Options cont.

		Diversify Core Water Supplies	Provide Drought Supplies	Cost	Local Supplies	Operational Flexibility	Adaptability	Timeline
Brackish Water Treatment – Normal Year. Brackish water treatment with a pipeline connection would offer another core water supply. With brackish water the normal year supply would be 56% imported water, 23% brackish water and 21% Pure Water. 	Brackish Water Treatment – Drought Year. In drought it is assumed that imported water would be curtailed 50% from normal year supplies and therefore in this option there is less imported water than in other options. With brackish water treatment drought supplies are anticipated to be imported water (47%), Pure Water (22%), brackish water (25%) and distant groundwater banking (6%). 	No	Yes, but participation in distant groundwater bank still necessary in drought.	\$4,420 to \$4,296/AF	Local supply from Pure Water Project and brackish water	Would require new infrastructure that limits how much water available and location of water delivery.	Agreements would frame the amount of water available.	~20 years

5.5 Recommended Near-Term Actions (by 2030)

As identified in Section 4 and above an action that LVMWD could undertake before 2030 is entering into agreements for groundwater banking outside the service area as described in Concepts 2a and 2c. This action would reduce the risk of mandatory conservation during a drought or other water shortage. The need for supplemental drought supply is especially important in the period before the Pure Water Project reaches full capacity by 2040.

Only the Pure Water Project can provide new normal year water supply in the near-term. Therefore, even with participation in groundwater banking, LVMWD's normal hydrologic year portfolio is expected to consist of Metropolitan supplies, recycled Title 22 irrigation water, and a relatively small contribution from the Pure Water Project. Figure 5-4 illustrates the near-term (year 2030) normal year and drought year potable water portfolios with and without implementation of distant groundwater banking.

A near term action is continued participation in the WRIST study and its later phases along with continued investigation of ocean desalination. Concepts 3, 4 and Desalination have long implementation timelines, and ongoing engagement in the WRIST study positions LVMWD to shape these future regional projects in a way that benefits the service area.

5.5.1 Cost of the Near-Term Portfolios

Anticipated costs for the potential near-term portfolios are presented in Table 5-1. The table shows the estimated supply volume by source and the corresponding estimated cost per AF. A cumulative cost per AF is provided for each portfolio under the following conditions:

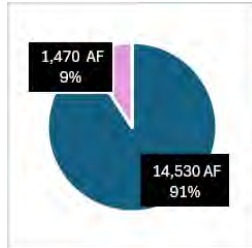
Normal Year	Drought Year
• Status Quo • With Implementation of Distant Groundwater Banking (Concept 2a or 2c)	• Status Quo • With Implementation of Distant Groundwater Banking (Concept 2a or 2c)

The estimates reflect 2024 dollars and incorporate expected above-inflation increases in Metropolitan's imported water costs driven by fixed-cost recovery and reliability-related capital projects (see Section 2.4). The cost escalations in Table 5-1 are based on the medium rate increase scenario for Metropolitan supplies.

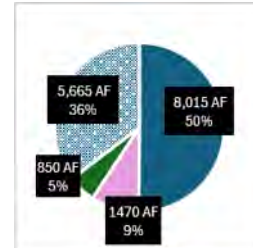
The volumes of water from each source in both normal and drought years reflect evaluations by LVMWD and the consultant team. These values should be considered estimates for planning purposes.

Figure 5-4: Status Quo (to 2030) Water Supply Portfolio vs Portfolio with Implementation of Distant Groundwater Banking

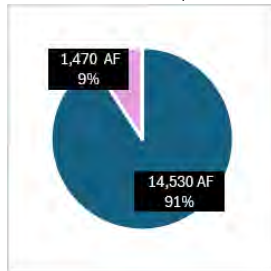
Near-Term Status Quo – Normal Year
Melded Cost: \$1,892/AF



Near-Term Status Quo – Drought Year
Melded Cost: \$1,927



Near-Term with Distant Bank – Normal Year
Melded Cost: \$1,892/AF



Bill Impact
Distant Bank
+~\$19

Near-Term with Distant Bank – Drought Year
Melded Cost: \$2,356/AF

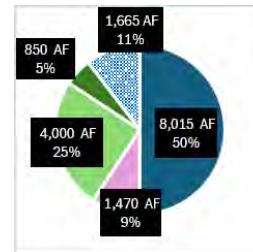
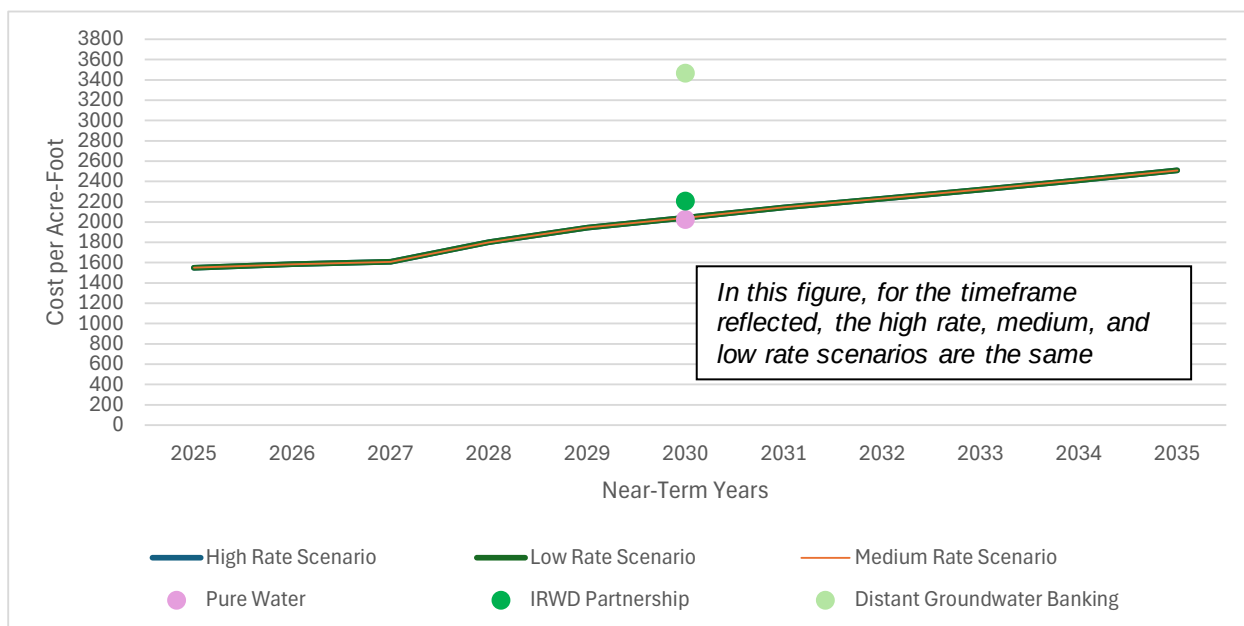


Table 5-1: Estimated Cost Near-Term Portfolios Present Value (only includes costs of potable water)

Portfolio Elements	Units
Status Quo Portfolio Normal Year	
Metropolitan Water (AF)	14,530
Pure Water (AF)	1,470
Cost per AF Metropolitan (\$2024)	\$1,879
Cost Per Unit Pure Water (\$2024)	\$2,025
Melded Cost (\$/AF)	\$1,892
Status Quo Portfolio Drought Year	
Metropolitan Water (AF)	8,015
Pure Water (AF)	1,470
IRWD Bank (AF)	850
Extreme Conservation (AF)	5,665
Cost per AF Metropolitan (\$2024)	\$ 1,879
Cost Per Unit Pure Water (\$2024)	\$ 2,025
Cost Per Unit IRWD Water (\$2024)	\$ 2,205
Melded Cost (\$/AF)	\$1,927
Stakeholder Recommended Portfolio (2a and 2c) - Normal Year	
Metropolitan (AF)	14,530
Pure Water (AF)	1,470
Distant Bank 2A (AF)	0
Distant Bank 2C (AF)	0
Cost per AF Metropolitan (\$2024)	\$ 1,879
Cost Per Unit Pure Water (\$2024)	\$ 2,025
Cost Per AF Concept 2A	\$ 3,941
Cost Per AF Concept 2C	\$ 2,988
Melded Cost (\$/AF)	\$ 1,892
Stakeholder Recommended Portfolio (2a and 2c) - Drought Year	
Metropolitan Water (AF)	8,015
Pure Water (AF)	1,470
Distant Bank 2A (AF)	2,000
Distant Bank 2C (AF)	2,000
IRWD Bank (AF)	850
Extreme Conservation (AF)	1,665
Cost per AF Metropolitan (\$2024)	\$ 1879
Cost Per AF Pure Water (\$2024)	\$ 2,025
Cost Per AF Concept 2A	\$ 3,941
Cost Per Unit Concept 2C	\$ 2,988
Cost Per Unit IRWD Water (\$2024)	\$ 2,205
Melded Cost (\$/AF)	\$ 2,356

Figure 5-5 provides a graphic representation of the cost of different portfolio elements in the near-term (2030). The portfolio elements are graphed relative to the high-, medium-, and low-rate scenarios for imported water from Metropolitan. Metropolitan has provided estimates for costs through 2034 and the differences in the high-, medium, and low-rate scenarios do not become apparent until after 2034.

Figure 5-5: Near-Term (to 2030) Water Supply Portfolio Element Costs in Present Value per Acre-Foot



5.6 Mid-Term Actions (2030-2045)

After implementing distant groundwater banking, LVMWD will be in a position to make a more informed judgement about the efficacy of groundwater banking and the benefits to the LVMWD service area. There is considerable interest statewide in expanding groundwater banking programs, and over the next ten to twenty years several programs are expected to seek new participants. This period aligns with the timeframe when LVMWD's current and planned banking agreements will be expiring, making it an appropriate time to evaluate and compare different groundwater banking options.

By implementing groundwater banking in the near term, LVMWD will have taken an important step towards studying additional ways to diversify core water supplies. These efforts include continued evaluation of desalination and exploration of other regional/local opportunities

By the mid-term period, the LVMWD service area will be largely developed but with the possibility of continued growth, and long-term demands will be better understood. This will make

it easier to “right size” any new core water supplies and avoid the risks of over- or under-investment.

By 2035, LVMWD will have either implemented or discontinued efforts to develop a new supply via ocean desalination. The outcome of those efforts will further inform and emphasize the need to pursue additional distant groundwater banking and potential participation in Concepts 3 or 4.

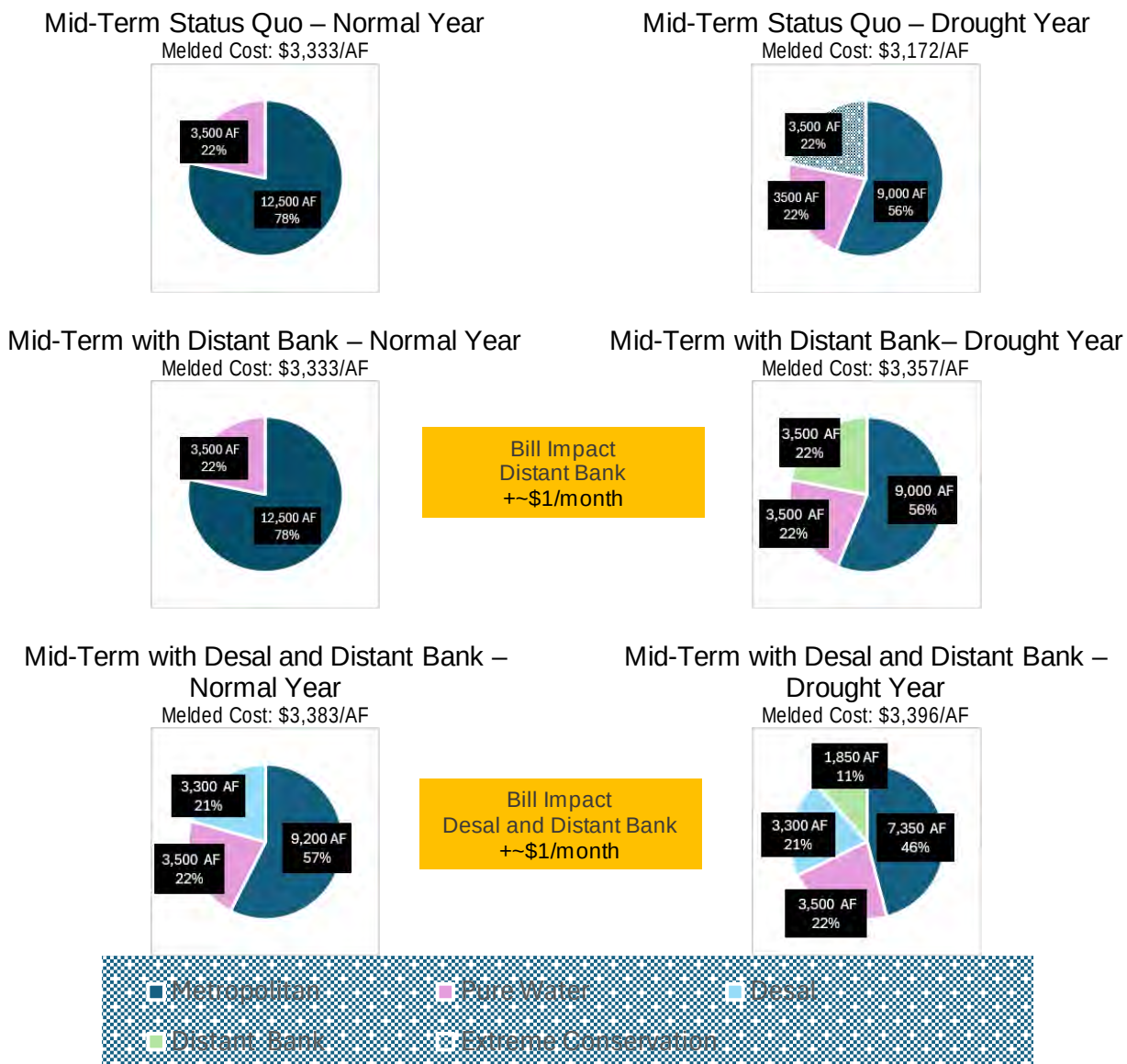
By 2040 groundwater banking policies may be established for the Oxnard Plain Groundwater Basin. If so, LVMWD could have the opportunity to participate in groundwater banking within Ventura County as described in Concept 3, particularly if desalination is not implemented. Based on the current understanding of costs, groundwater banking in Ventura County may not be cost-competitive with other groundwater banking programs; however, this is an area worth re-evaluating in the future.

By 2040 LVMWD should have some indication of Metropolitan’s improvements and how these improvements affect reliability for the LVMWD service area. Depending on those outcomes, LVMWD may be able to adjust its target for groundwater storage.

By 2040 there should also be better understanding of the potential yield and costs associated with Concept 4. Concept 4 could provide both normal year and drought/shortage-year supplies, but its feasibility depends on adoption of policies that would allow LVMWD to use groundwater in the Oxnard Plain Basin. The adoption of such policies remains uncertain. Based on conceptual data available at this time, Concept 4 could be cost-competitive with imported water from Metropolitan.

Figure 5-6 shows the mid-term (2045) portfolio status quo, with implementation of Concept 2c, and with implementation of desalination. While desalination has not been fully evaluated and it is premature to assume it would be pursued by LVMWD, it is included in the portfolios to show how a mid-term portfolio would perform with a new core water supply. Figure 5-6 demonstrates the benefits of desalination with new technology such as OceanWell in a normal year but also points to the need for an additional drought supply; even with the implementation of desalination, LVMWD may want to consider maintaining a groundwater banking program.

Figure 5-6: Status Quo (2045) vs Portfolio with Implementation of Concept 2c or Desalination



5.6.1 Cost of the Mid-Term Portfolios

Anticipated costs for the potential portfolios available in the mid-term, in this case year 2045, are shown in Table 5-2. Table 5-2 provides the estimated supply volume, by source as well as its estimated cost per AF in the near-term. A cumulative cost per AF is provided for each portfolio. This has been done for:

Normal Year
 Status Quo
 With Implementation of Concept 2c
 With Desalination

Drought Year
 Status Quo
 With Implementation of Concept 2c
 With Desalination

The estimates are in 2024 dollars, but reflect the fact the imported water from Metropolitan is expected to rise more quickly than the rate of inflation (see Section 2.4). The costs in Table 5-2 have assumed the medium rate increase scenario for Metropolitan supplies.

Table 5-2: Estimated Cost Mid-Term Portfolios Present Value (only includes costs of potable water)

Portfolio Elements	Units
Status Quo Portfolio Normal Year	
Metropolitan Water (AF)	12,500
Pure Water (AF)	3,500
Cost per AF Metropolitan (\$2024)	\$ 3,907
Cost Per Unit Pure Water (\$2024)	\$ 1,281
Melded Cost (\$/AF)	\$ 3,333
Status Quo Portfolio Drought Year	
Metropolitan Water (AF)	9,000
Pure Water (AF)	3,500
IRWD Bank (AF)	0
Extreme Conservation (AF)	3,500
Cost per AF Metropolitan (\$2024)	\$ 3,907
Cost Per Unit Pure Water (\$2024)	\$ 1,281
Cost Per Unit IRWD Water (\$2024)	\$ 2,205
Melded Cost (\$/AF)	\$ 3,172
Stakeholder Recommended Portfolio (2a and 2c) - Normal Year	
Metropolitan Water (AF)	12,500
Pure Water (AF)	3,500
Distant Bank 2A (AF)	0
Distant Bank 2C (AF)	0
Cost per AF Metropolitan (\$2024)	\$ 3,907
Cost Per Unit Pure Water (\$2024)	\$ 1,281
Cost Per AF Concept 2A	\$ 4,394
Cost Per AF Concept 2C	\$ 3,642
Melded Cost (\$/AF)	\$ 3,333

Table 5-2 cont.

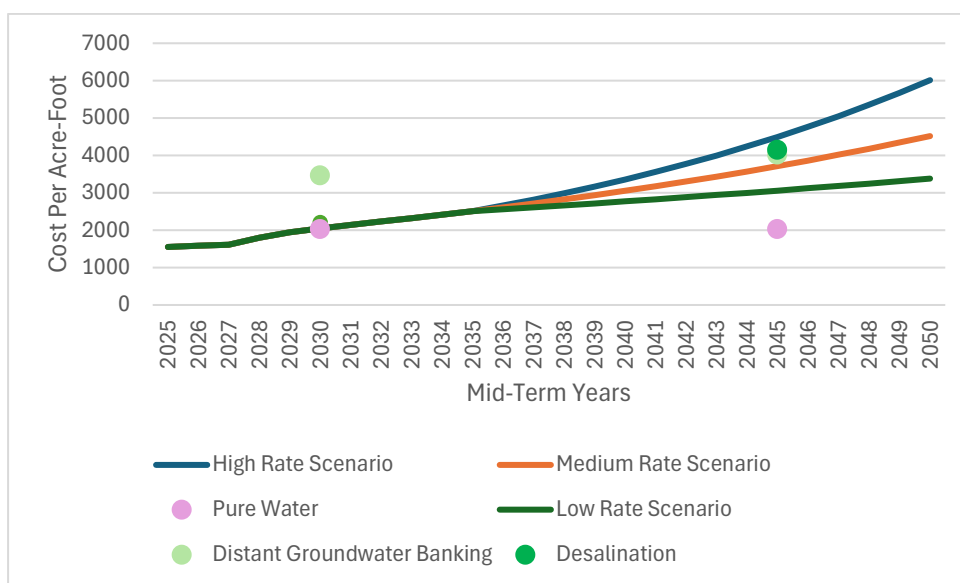
Portfolio Elements	Units
Stakeholder Recommended Portfolio (2a and 2c) - Drought Year	
Metropolitan Water (AF)	9,000
Pure Water (AF)	3,500
Distant Bank 2A (AF)	1,750
Distant Bank 2C (AF)	1,750
Cost per AF Metropolitan (\$2024)	\$ 3,907
Cost Per AF Pure Water (\$2024)	\$1 281
Cost Per AF Concept 2A	\$4,394
Cost Per Unit Concept 2c	\$ 3,642
Cost Per Unit IRWD Water (\$2024)	\$ 4,394
Melded Cost (\$/AF)	\$ 3,357
Potential Portfolio with Desal - Normal Year	
Metropolitan Water (AF)	9,200
Pure Water (AF)	3,500
Desalination (AF)	3,300
Cost per AF Metropolitan (\$2024)	\$ 3,907
Cost Per AF Pure Water (\$2024)	\$ 1,281
Cost Per AF Desalination	\$ 4,150
Melded Cost (\$/AF)	\$ 3,383
Potential Portfolio with Desal - Drought Year	
Metropolitan Water (AF)	7,350
Pure Water (AF)	3,500
Desal (AF)	3,300
Distant Groundwater Banking (AF)	1,850
Cost per AF Metropolitan (\$2024)	\$ 3,907
Cost Per AF Pure Water (\$2024)	\$ 1,281
Cost Per AF Desalination	\$ 4,150
Cost AF Distant Groundwater Banking	\$ 4,018
Melded Cost (\$/AF)	\$ 3,396

Figure 5-7 provides a graphic representation of the cost of different portfolio elements in the mid-term (2045). The portfolio elements are graphed relative to the high-, medium-, and low - rate scenarios for imported water from Metropolitan. What Figure 5-7 shows is that the recommendations in this study are dependent on assumptions of how the costs of Metropolitan water changes overtime. Some scenarios that would not be cost effective relative to imported water become cost effective dependent on the increase in cost of Metropolitan water.

Key Assumption

For purposes of this study, it's assumed that Metropolitan imported water costs will increase at a rate greater than inflation.

Figure 5-7: Mid-Term Water Supply Portfolio Element Costs in Present Value per Acre-Foot



5.7 Long-Term Actions (by 2065)

There is a lot of areas of uncertainty surrounding both demands and supplies in 2065. This uncertainty makes recommendation of water supply portfolio dubious.

Areas of uncertainty include:

Uncertainty in the Status Quo

- Uncertainty of future SWP reliability. Climate change and regulation all affect the availability, volume, and quality of imported SWP supplies that could be delivered to LVMWD.
- Cost of imported Metropolitan Water. As described in Section 2.4, Metropolitan is

undertaking capital improvements to improve reliability at the same time as the supplies they have available are decreasing. This means Metropolitan's rates could be volatile.

- Uncertainty in future water demand in the LVMWD service area. LVMWD has been working to ensure customers are efficient at all times, consistent with the state regulation, *Making Water Conservation a California Way of Life*. Efficiency standards will tighten over time. The exact water use profile of LVMWD in 2065 and hence the need for supplemental supplies cannot be known at this time.

Uncertainty for Potential Future Supplies

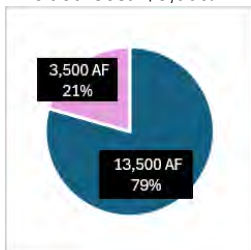
- Institutional complexity, inability for LVMWD to implement independently. Several project concepts rely on groundwater banking and/or ground production in the Oxnard Plain Groundwater Basin. These concepts can only go forward if a groundwater banking framework is developed for the Oxnard Plain Groundwater Basin. It is unclear if this framework will be in place in the near or far future.
- Technical complexity of proposed concepts. Several of the concepts herein rely on new technology, specifically the South Oxnard Plain Brackish Water Desalination Project and OceanWell. The energy use, chemical use, and yield are not yet well understood and require additional study. It is unclear if these technologies will be permitted in the near or far future. The technical and regulatory uncertainty also make the timeline uncertain.

This study advocates an adaptive approach to the overall portfolio. The recommended near-term projects are available now and mitigate the immediate need to provide drought water supply. The recommended mid-term actions are to evaluate the success of groundwater banking, concluding research into the viability and cost of desalination, while evaluating the feasibility and timeline of participating in projects in Ventura County (Concepts 3 and 4). The recommendation for long-term actions are similar to the mid-term actions, evaluate the reliability and cost of the status quo, evaluate the actual need for supplemental supplies, and see where the outstanding concepts may improve the cost or reliability of the portfolio. Figure 5-8 displays possible long-term portfolios.

Figure 5-8: Recommended Long-Term (2065) Scenarios

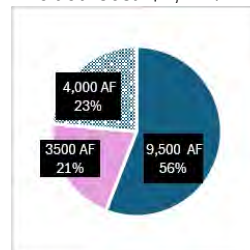
Long-Term Status Quo – Normal Year

Melded Cost: \$5,009/AF



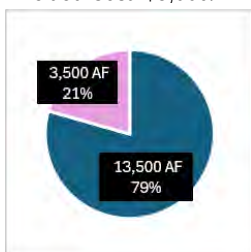
Long-Term Status Quo – Drought Year

Melded Cost: \$4,712/AF



Long-Term with Distant Bank – Normal Year

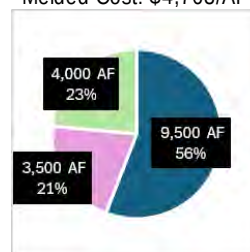
Melded Cost: \$5,009/AF



Bill Impact
Distant Bank
+~\$0/month

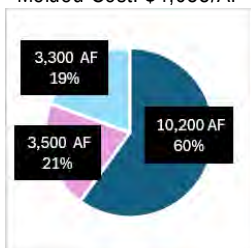
Long-Term Distant Bank – Drought Year

Melded Cost: \$4,763/AF



Long-Term with Desal and Distant Bank – Normal Year

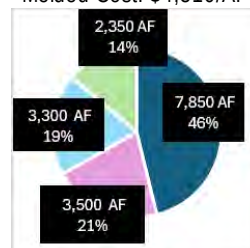
Melded Cost: \$4,655/AF



Bill Impact
Desal and Distant Bank
+~\$0/month

Long-Term with Desal and Distant Bank – Drought Year

Melded Cost: \$4,510/AF



5.8 Water Customer Bill Impacts

In developing the recommended portfolios, the costs associated with each portfolio mix were analyzed in regard to how they impact customers. Table 5-3 illustrates melded wholesale water costs in \$500 increments along with corresponding residential water bills based on the amount of water used by a customer in any given month. This exercise helps to provide context to the impacts of increasing costs for water and to establish “affordability” by the end-user.

Within the LVMWD service area, the representative average residential customer in 2024 was a household of three persons using 55 gallons per person per day. This equates to about 7 HCF per month of indoor water use (5,236 gallons per month). The average residential outdoor water use within the service area in 2024 was about 16 HCF (about 12,000 gallons and 70 percent of total water use). The irrigated area of the average residence in 2024, including any lawns, was approximately 7,700 square feet. The same amount of water would support a residential property with a swimming pool and about 7,000 square feet of irrigated area that uses efficient spray and drip irrigation systems that are well maintained. In total the average LVMWD residential customer in 2024 used 23 HCF.

Table 5-3: Average Monthly Residential Water Bill based on Tier 1 (efficient) Use

Wholesale Cost of Water (2024\$)	Tier 1 Rate	Monthly Use (HCF) vs. Monthly Bill				
\$/AF	\$/HCF	23	20	18	15	13
\$1,256	\$2.88	\$153.62	\$140.81	\$132.26	\$119.45	\$110.91
\$2,000	\$4.59	\$174.47	\$158.93	\$148.58	\$133.05	\$122.69
\$2,500	\$5.74	\$196.62	\$178.20	\$165.91	\$147.49	\$135.21
\$3,000	\$6.89	\$218.77	\$197.46	\$183.25	\$161.94	\$147.73
\$3,500	\$8.03	\$240.73	\$216.55	\$200.44	\$176.26	\$160.14
\$4,000	\$9.18	\$262.88	\$235.81	\$217.77	\$190.71	\$172.66
\$4,500	\$10.33	\$285.03	\$255.08	\$235.11	\$205.15	\$185.18
\$5,000	\$11.48	\$307.18	\$274.34	\$252.44	\$219.60	\$197.70
\$5,500	\$12.63	\$329.33	\$293.60	\$269.78	\$234.05	\$210.22
\$6,000	\$13.77	\$351.29	\$312.70	\$286.96	\$248.37	\$222.64
\$6,500	\$14.92	\$373.44	\$331.96	\$304.30	\$262.81	\$235.16

The blue columns provide the cost of water, which can be either a single source or melded in the case of a portfolio mix of supplies and the corresponding commodity charge to a customer at the tier 1 (efficient) rate. Each LVMWD customer receives a customized budget based on a number of factors including the number of residents in a household and square-feet of irrigated area for their property. This budget amount establishes the maximum amount of water they can use in any particular month based on weather conditions / evapotranspiration rates to be considered efficient. Going over that amount will result in higher rates for amounts used over their budget.

The green cells highlight monthly bill amounts that are less than \$200. This is considered the District's target water bill range for the average customer. The brown cells represent monthly amounts exceeding \$200 that would be less desirable for the average customer. These dollar thresholds are highly subjective but provide some context between "more affordable" and "less affordable" water.

In 2024, the average residential customer used approximately 23 HCF per month when the Metropolitan Wholesale cost for water was \$1,256. This corresponds with a monthly water bill of \$153.26 per month on average. An extremely efficient customer that used only 13 HCF would have only paid \$110.91.

To utilize Table 5-3, one simply needs to identify the cost of the melded supply and scroll to the amount of water use (e.g. 13-23 HCF) to determine the monthly cost for water. For example, if a supply portfolio's melded cost is \$3,500 and the assumed water use is 15 HCF, the monthly bill would be \$176.26. For values between the water supply cost increments provided, one only needs to interpolate to determine the approximate monthly bill. In the example provided, the cost of water increasing from \$1,256 in 2024 to \$3,500 in say 2045 would result in a customer's bill increasing by \$87.11 per month assuming they don't become more efficient in their water use. However, if the customer becomes more efficient in their water use and monthly consumption drops to 15 HCF, their monthly bill will increase from \$153.62 to \$176.26 per month or a bill impact of \$22.64 per month. This is highly plausible given the new State mandates for water use efficiency and the type of water savings that can be realized if customers take advantage of various programs that are offered by the District, including but not limited to the District's Landscape Transformation Program / turf removal rebates and other programs that are offered and aimed to maximize efficient water use.

The cost for recommended water supplies can have a range of impacts to customer water bills, but it can be mitigated. A customer with a large property (more irrigation) that has done little to reduce water use, will see a higher impact to their bill. For a portfolio with a melded cost of \$4,000 per acre-foot, if the customer used and continues to use 23 HCF per month, their bill would increase from \$153.63 in 2024 to \$262.88 per month in 2065 or \$109.26 per month. But if that same customer reduces their water use by taking steps to reduce water use, it would be possible for that customer to reduce their monthly water use to 15 HCF, which would result in a monthly bill of \$190.71 - an increase of \$37.09 per month.

Despite an increase in water supply costs from \$1,256 in 2024 to as much as \$ 5,009 in 2065, it is recognized that there are significant opportunities for customers to reduce water consumption and the supply mixes can be considered affordable. Customers will generally need to become increasingly efficient with their water use to minimize increases to their water bill. While the cost for water is increasing, the additional cost can be justified if something additional is being provided in return. In this case, it's a more reliable water supply that will be there despite climate change and the occurrence of natural disasters like earthquakes and droughts.

5.8.1 Affordability

Affordability is a concern for any public works project but in particular drinking water. Dr. Kurt Schwabe, a Professor of Environmental Economics and Policy at the University of California Riverside recently led a major study on water affordability in Southern California (Kurt Schwabe and Mehdi Nemati, "Affordability of Water Services in Southern California", presentation to Southern California Water Dialogue April 22, 2026). The study identified the Water Expenditure Ratio (WER) as a key affordability metric. The study assumed a need of approximately 55 gallons per person per day or about 6 HCF per month per person. WER is calculated as the monthly water cost for 6 HCF divided by monthly income. The target, based on the State Water Resources Board "affordability risk" is to have the WER less than 1.5%. Findings using household level data from 2013 to 2024 indicate that when looking at the entire populace of the service area most of the member agencies of Metropolitan had WER scores less than 1.5%, indicating that water is affordable. However, water costs for lower income households generally exceeded a WER of 1.5%. The findings indicate that water remains a small share of total

household spending, with housing, food, and transportation making up most household spending.

For the LVMWD service area, using a median monthly income of \$14,200 (based on City of Agoura Hills, CA), the WER in 2024 would have been 0.53%, well below the WER threshold for affordability. This accounts for 6 units of Tier 1 (efficient) water and a monthly fixed meter charge of \$58. At the melded cost of \$5,000 per acre-foot and corresponding Tier 1 rate of \$11.48 per HCF associated with the most expensive portfolio in the long-term, the WER is 0.89%. Even with the melded water rate at \$6,500 and a corresponding Tier 1 rate of \$14.92 per HCF, the WER would be 1.04% - again well below the 1.5% threshold to meet the water affordability criteria for the District's service area. Although the water affordability criteria can still be met with substantially higher melded water supply costs, a concerted effort should be made to minimize the cost of water while providing reliability. This is because the Tier 1 water rates in the table only account for increases in water supply costs – not future increases associated with greater levels of investment in water system infrastructure repairs/replacements, improvements and corresponding increases in operational and maintenance costs that outpace increases in inflation and/or household incomes. Also, lower- income households may struggle to afford water, even with overall service area WER below 1.5%.

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Appendix A: Stakeholder Materials



WATER SUPPLY DIVERSIFICATION STUDY

Stakeholder List

Jodi Regan	Agoura Hills Community Volunteer
Peter Kraut	Calabasas Mayor Pro Tem
Lisa Clayden	Calabasas Chamber of Commerce President and Chief Executive Officer
Kristine McCaffrey	Calleguas Municipal Water District General Manager
Ian Prichard	Calleguas Municipal Water District Assistant General Manger
Danielle Borja	Greater Conejo Valley Chamber of Commerce Chief Executive Officer
Larry Weber	Hidden Hills Mayor Pro Tem
William Johnson	Los Angeles County Waterworks District 29
Clark Stevens	Resources Conservation District of Santa Monica Mountains
Tracy Lovric	Resources Conservation District of Santa Monica Mountains
Amanda Begley	Tree People Watershed Coordinator
David Pedersen	Las Virgenes Municipal Water District General Manager
Joe McDermott	Las Virgenes Municipal Water District, Assistant General Manager Engineering and Operations
Don Patterson	Las Virgenes Municipal Water District Assistant General Manager Finance and Administration
Craig Jones	Las Virgenes Municipal Water District Resource Conservation Manager
Eric Schlagater	Las Virgenes Municipal Water District Principal Engineer
Oliver Slosser	Las Virgenes Municipal Water District Engineering Program Manager
Jeremy Wolf	Las Virgenes Municipal Water District Legislative Program Manager
Jay Lewitt	Las Virgenes Municipal Water District Board Vice President
Andy Coradeschi	Las Virgenes Municipal Water District Board President
Jessica Forte	Las Virgenes Municipal Water District Principal Engineer
Adrienne Burns	Las Virgenes Municipal Water District Director of External Affairs



1

Today's Agenda

- Introductions
- Purpose of Study
- Background and History of LVMWD
- Existing and Pending Supplies
- Supply Enhancement Concepts
- Stakeholder Participation
- Water Demand Projections
- Discussion

BE READY:
There will be some interactive polls!

A photograph of a large reservoir with a dam in the background, set against a backdrop of mountains under a clear blue sky. The foreground shows a grassy hillside.

2

Introductions



3

Purpose of Study

This study sets out to identify alternatives to diversify LVMWD's water supply portfolio for the purpose of providing a more reliable supply of water to customers in a cost effective and environmentally sensitive manner under a variety of water supply conditions.

The goal of the study is to answer the following questions:

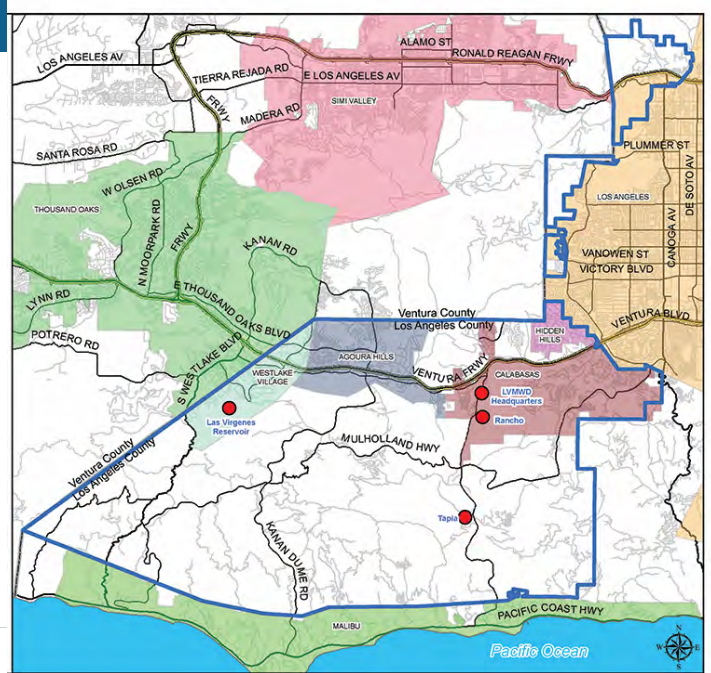
- ✓ What is the reliability of the current supply?
- ✓ To what degree should LVMWD rely on MWD versus local/non-MWD supply?
- ✓ To what extent are the proposed alternative supplies reliable?
- ✓ What are the realistic timelines for planning and implementing various alternative water supplies?
- ✓ How much will the optimal supply portfolio cost and what is the impact to the average customer's water bill?
- ✓ What is the optimal/most-feasible water supply portfolio, near-term and long-term?

4

History

- Las Virgenes Municipal Water District formed in 1958
- Pop. 70,000+ (21,000+ customers)
- Serving Hidden Hills, Calabasas, Agoura Hills, Westlake Village, unincorporated western LA
- 14,000+ acre-feet per year potable water demand
- 95+% from the State Water Project
- 74% less water supply during 20-23 drought
- Reduced use by ~35% on average (up to 50% in some months) during the last drought
- Introduction of flow restrictors / extraordinary conservation

KJ Kennedy Jenks



5

Existing Sources of Water Supply

Existing:

- State Water Project (SWP) – 95-100% of potable supply
- Colorado River Aqueduct (CRA) – up to 5% of potable supply
- Some from Los Angeles (backup/emergencies)
- Recycled Water (non-potable supply)



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LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 1

6

Water Supply Challenges

Climate Change, Population Growth, Regulations / Restrictions, & Competition

- No/very limited groundwater in LVMWD Service Area
- Groundwater poorly managed in nearby basins
- Colorado River (Lake Powell and Mead at historic low levels)
- Dependence on State Water Project
 - 10% less supply on average in the future due to climate change
 - Vulnerable to earthquakes & sea level rise

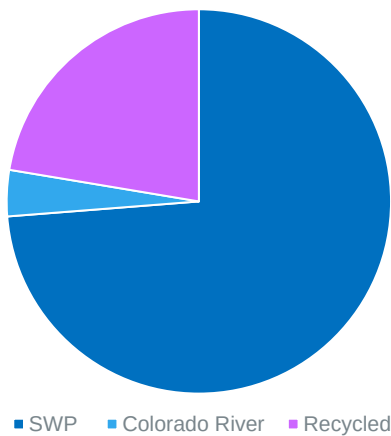
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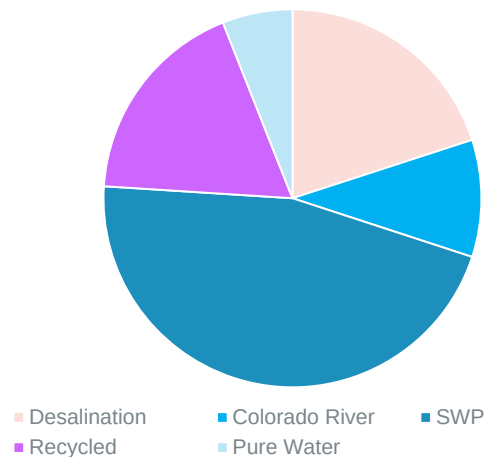
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Existing, Pending, and Future Potential Portfolio

Current Portfolio



Diversified Portfolio



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WORKSHOP 1

8

Pending, Future, or Potential New Sources of Water Supply

Pending:

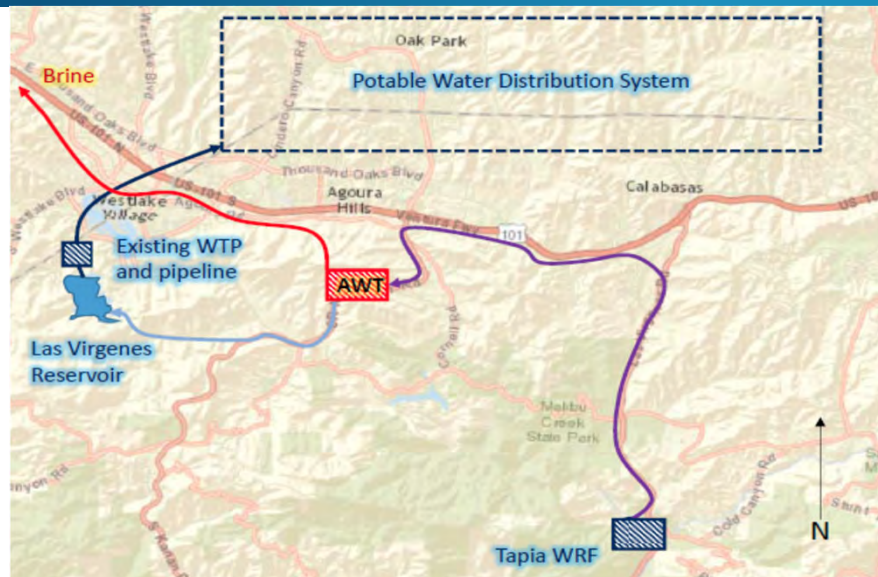
- Pure Water Project Las Virgenes – Triunfo (up to 30% potable)
 - includes utilization of excess reclaim, storm/dry weather runoff, and impaired groundwater

Future or Potential:

- Ocean Desal (e.g. OceanWell)
- Additional Colorado River (CRA)
 - interconnection with LA County Water Works District 29
 - enhancements to MWD Conveyance (e.g. Sepulveda Pass Feeder)
- Groundwater Banking
 - Semi-Tropic
 - Oxnard Plain/Fox Canyon Groundwater Management Agency

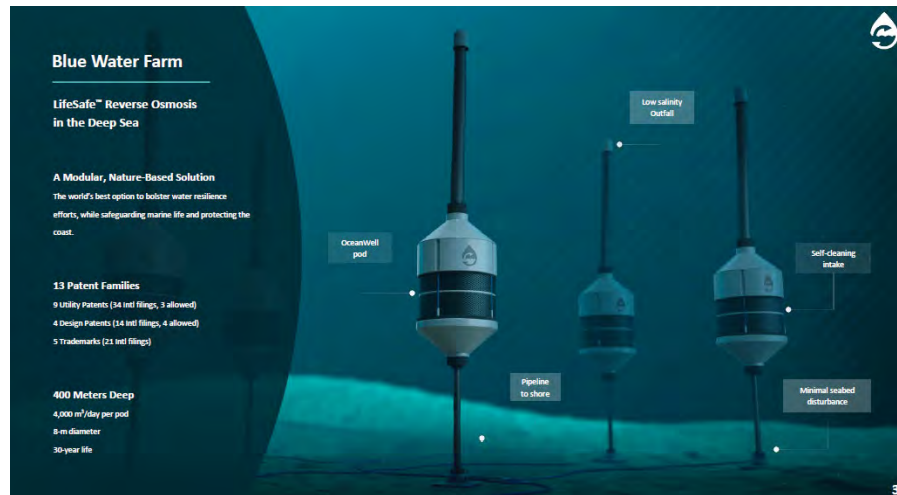
Pure Water Project Las Virgenes - Triunfo

- Planning since 2015
- Regulatory Compliance (discharges to Malibu Creek)
- Advance treat and reuse excess reclaimed water from Tapia
- Up to 5,000 acre-feet to LVMWD and Triunfo WSD
- 6 mgd peak capacity
- Currently 30% designed
- Construction start in early 2026
- On-line in 2029
- \$466 million estimate



Desalination (via OceanWell)

- “Conventional” probably not feasible
- Piloting OceanWell Inc. technology
 - Less energy
 - Small footprint
 - Safer for fish/sea life
- Could provide 20% or more of water supply
- 2030+
- Cost unknown



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LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 1

11

Metropolitan Water District System Upgrades



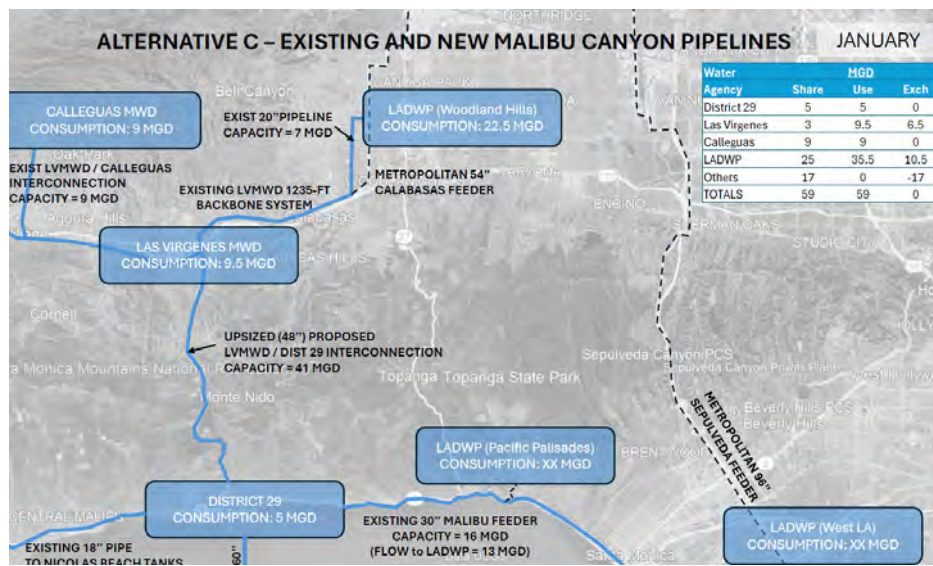
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WORKSHOP 1

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Interconnection with LA County Waterworks District 29



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LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 1

13

Groundwater Banking

- Not a new “supply” but additional storage
- Along SWP
 - Reliance on DWR and Metropolitan
- No local opportunities (yet)



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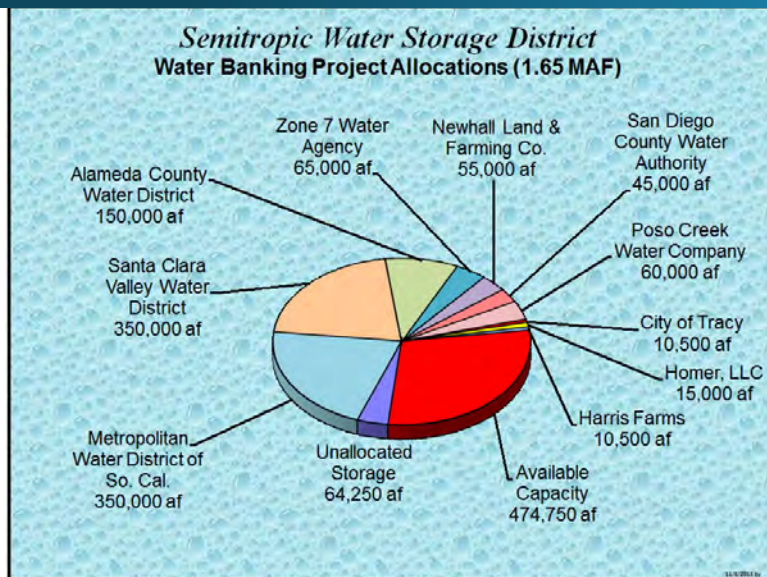
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Item 60 - Slide 27

August 20, 2018

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Groundwater Banking



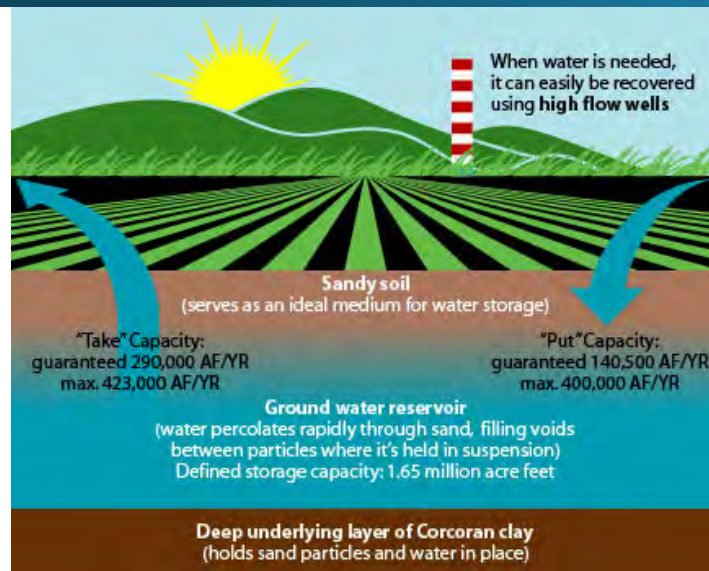
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WORKSHOP 1

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Groundwater Banking



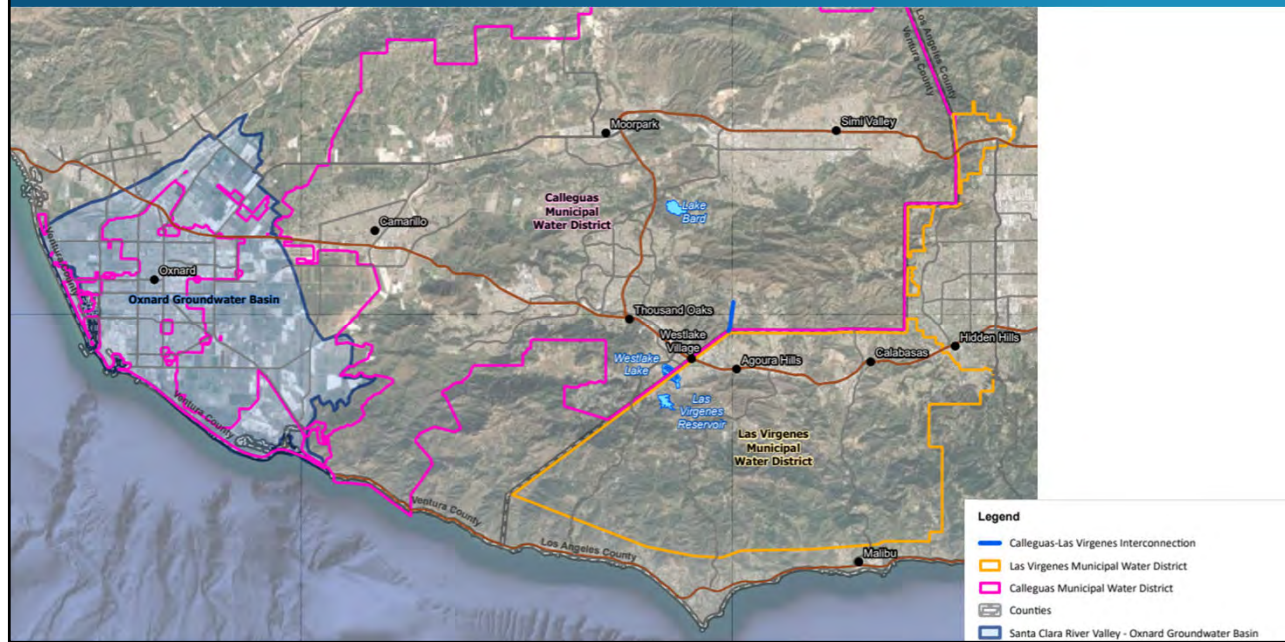
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WORKSHOP 1

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Groundwater Banking (via Calleguas / Oxnard Plain)



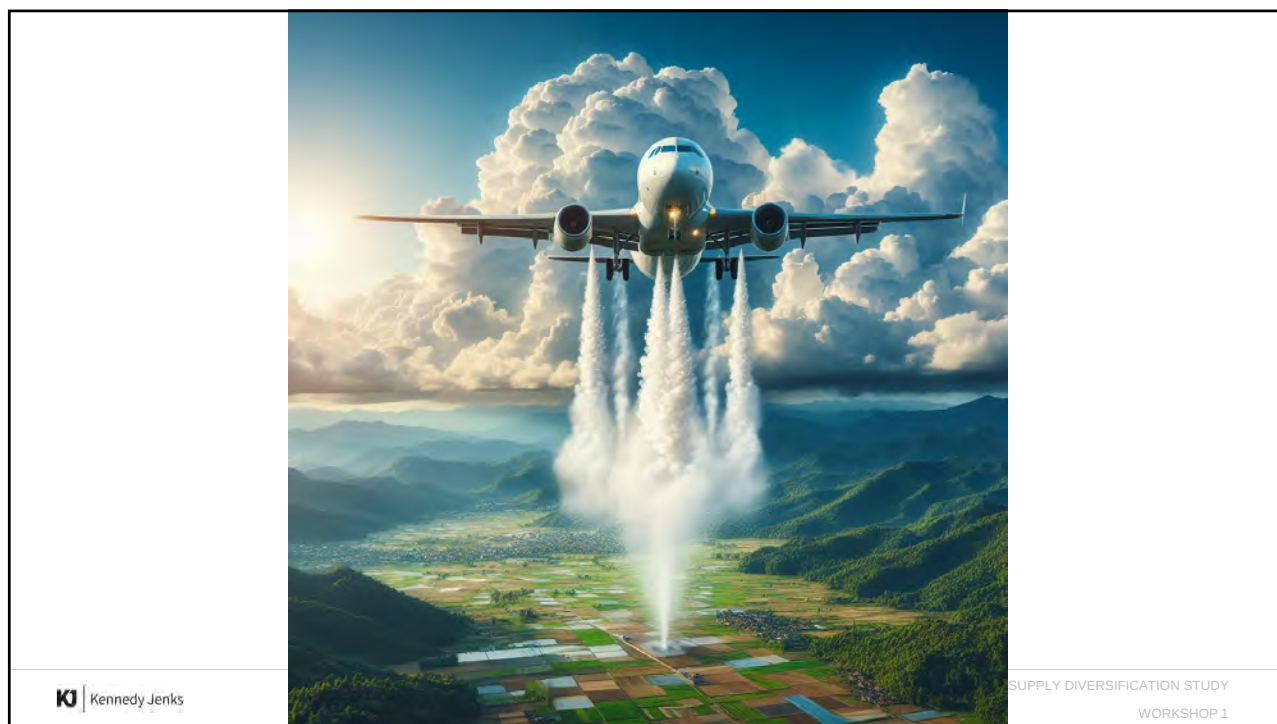
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Unlikely or Non-Practical Sources of Water Supply

- Iceberg towing
- Cloud seeding
- Pipeline conveyance from Oregon, Canada, Great Lakes, etc.



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SUPPLY DIVERSIFICATION STUDY
WORKSHOP 1

19

Supply Enhancement Concepts

LVMWD WSDS W1S1



TIME FOR A POLL:
Use QR Code at left to go to the poll. Pick up to three choices.

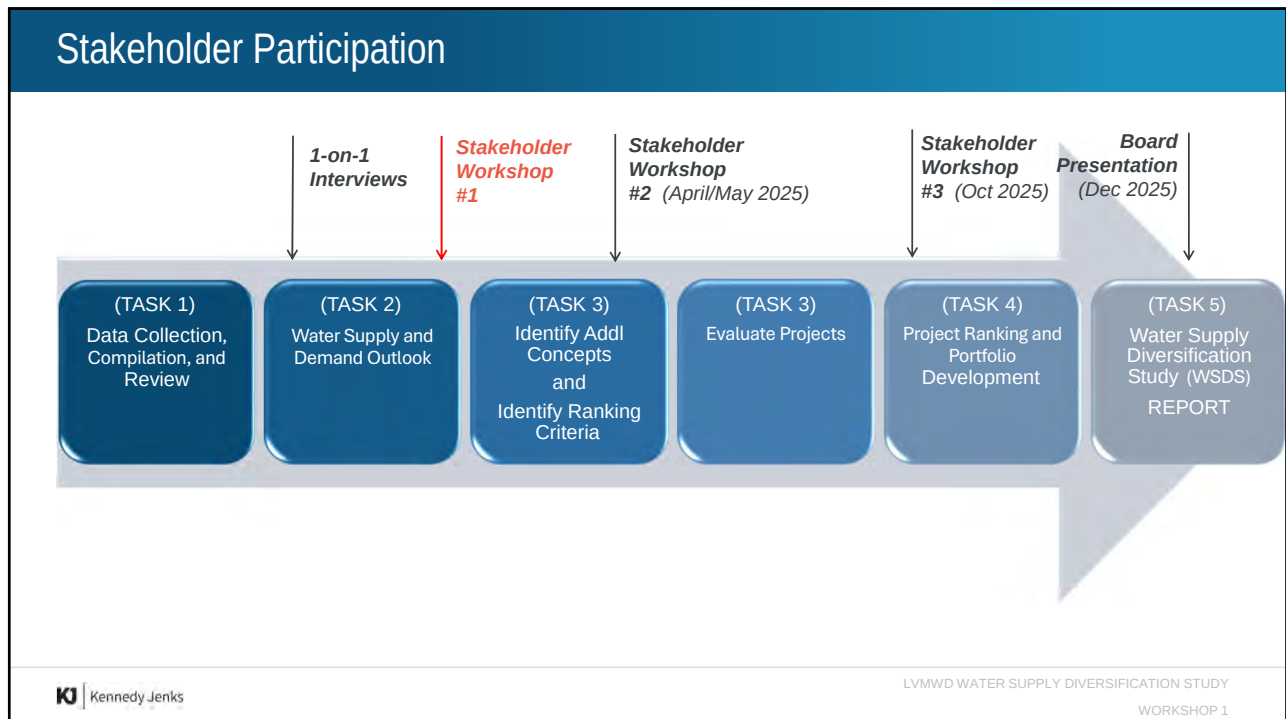
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WORKSHOP 1

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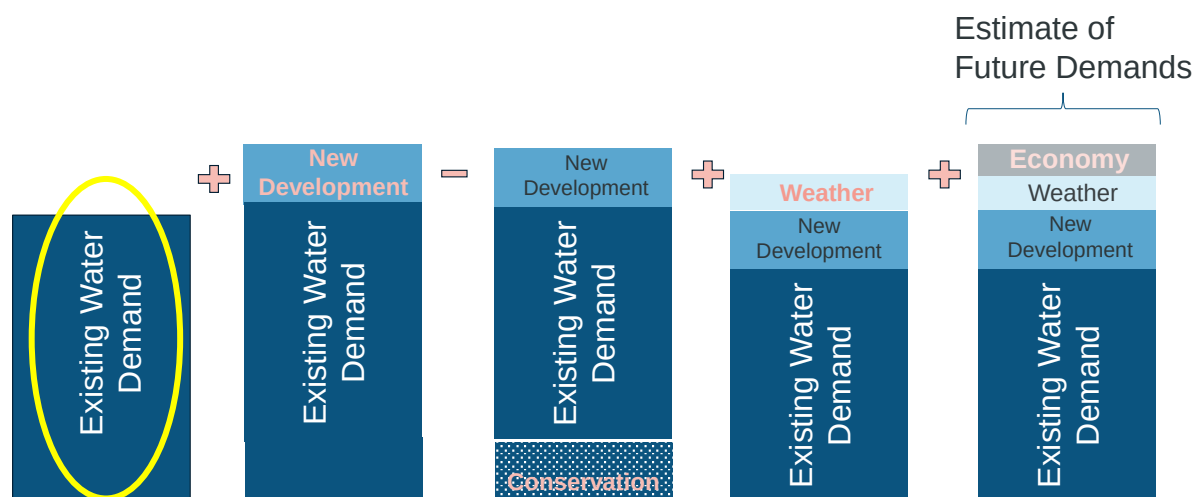
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Purpose of Workshop 1

Activities	Focus and Desired Outcomes
Stakeholder Workshop #1 (in-person or virtual)	- Introduce project goals and objectives - Input to water demand projections
1 on-1 Interviews (in-person or virtual)	- Present study goals and objectives; solicit input on screening criteria and weighting values. - Vet a preliminary concept list - Research and network to gather information on related regional projects. - Receive feedback on institutional, regulatory, and feasibility challenges.
Stakeholder Workshop #2 (in-person)	- Facilitate a discussion of preliminary concept list and solicit input to add to the list - Identify and understand concepts with insurmountable obstacles
Stakeholder Workshop #3 (in-person or virtual)	- Walk through short-list of projects and distribute fact sheets - Present initial evaluation results - Facilitate discussion of portfolio development approach

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Water Demand Projections

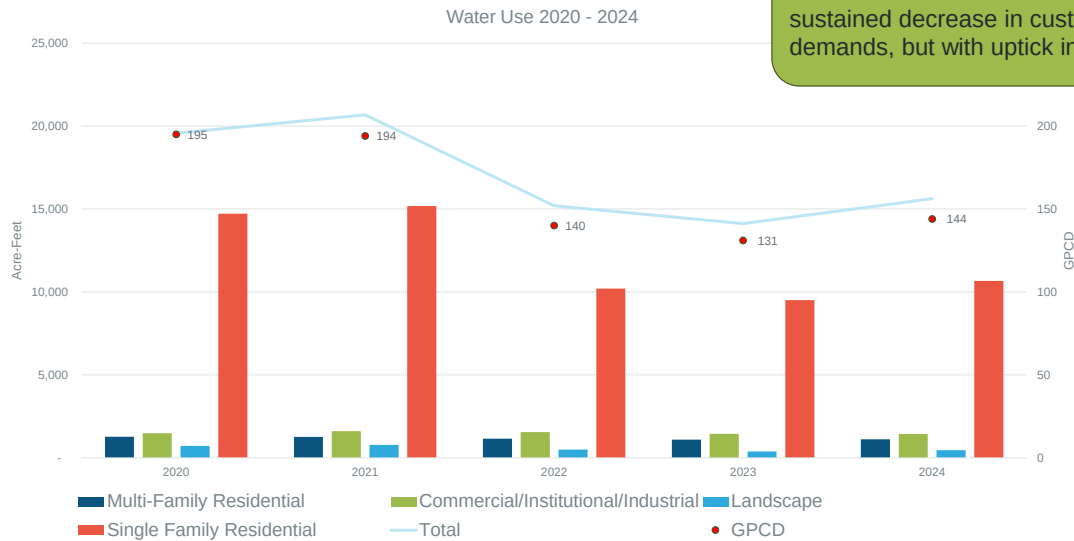


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Historic Water Use / Existing Water Demand

DISCUSS:

From 2020 to 2024 LVWMD saw sustained decrease in customer demands, but with uptick in 2024.



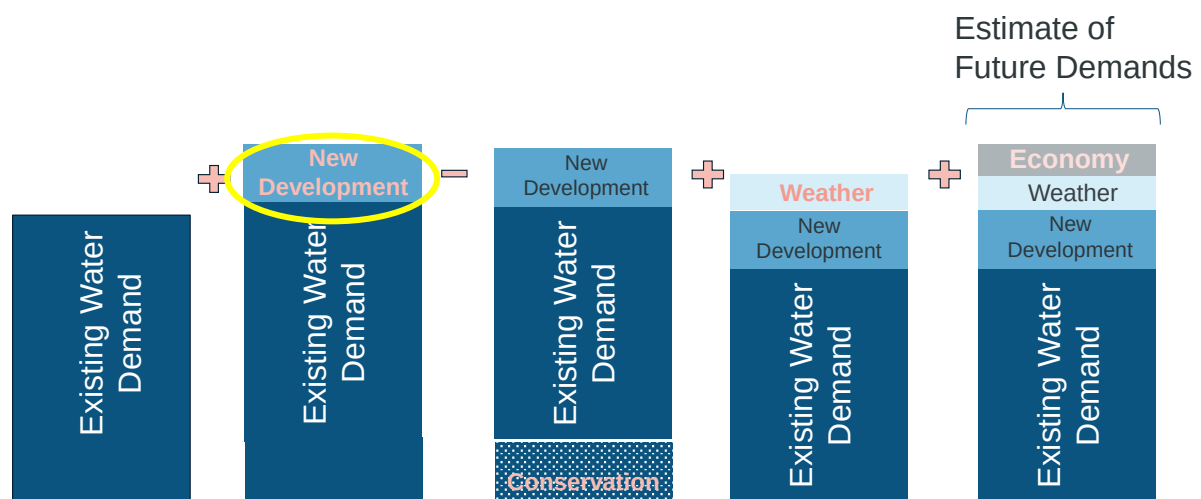
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WORKSHOP 1

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Water Demand Projections



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LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 1

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Data Sources for New Development

Agoura Hills

Updated General Plan 2022
2021-2029 Housing Element
2019-2023 US Census

Calabasas

Updated General Plan 2030
2019-2023 US Census

Hidden Hills

2021-2029 Housing Element
Southern California Assoc of
Govts Hidden Hills Spatial and
Statistical Summary

Westlake Village

2021-2029 Housing Element
2019-2023 US Census

LA County/SMM

Santa Monica Mountains North
Area Plan (2020)
2019-2023 US Census

General Region

CA Dept of Finance
Southern California
Association of Governments

DISCUSS:

Confirm data sources? Others?
See handout for details.

Anticipated New Developments

- See Handout

Housing and Population Projections 2025 to 2050 LVMWD Service Area

	New Projected Dwelling Units	Persons Per Household	Additional Population
Agoura Hills (a, b)			
Agoura Village Specific Plan	660	2.79	1,841
Mixed Use Shopping Center Site	188	2.79	525
RM 15 ² Redesignation Site	523	2.79	1,459
Lady Face Mountain Specific Plan	30	2.79	84
<i>Subtotal</i>			3,909
Calabasas (c, d)			
Single Family Residential Sites			
Hillside Mountainous	18	2.6	47
Rural Residential	10	2.6	26
Residential Single Family	16	2.6	42
Multi-Family and Mixed Use Sites			
Raznick Office Building	42	2.6	109
Rancho Pet Kennel	60	2.6	156
Private Parking Lot	78	2.6	203
Old Town Vacant Site	48	2.6	125
Las Virgenes Shopping Center	36	2.6	94
Church	99	2.6	257
Downtown Offices	54	2.6	140
Avalon Apartments	71	2.6	185
Agoura Road Offices	111	2.6	289
Mureua Road Office	64	2.6	166
Commons Shopping Center	202	2.6	525
Craftsman Corner	196	2.6	510
<i>Subtotal</i>			2,874

Table cont.

	New Projected Dwelling Units	Persons Per Household	Additional Population
Hidden Hills (e, f)			
New Construction	40	2.71	108
<i>Subtotal</i>			<i>108</i>
Westlake Village (g, h)			
North Bus. Park - Cedar Valley	102	2.54	259
North Bus. Park - Corsa	133	2.54	338
North Bus. Park - Lindero	400	2.54	1016
Low Density Residential	3	2.54	8
Medium Density Residential	1	2.54	3
<i>Subtotal</i>			<i>1,624</i>
Unincorporated LA County Santa Monica Mountains Planning Area (i)			
	1,085		4,371
POPULATION ESTIMATE 2025 BASED CA DEPT OF FINANCE DATA			74,136
POPULATION AT BUILDOUT BASED ON LAND USE PLANS (rounded to nearest 100)			87,000

Notes:

- a. Source of housing data is General Plan Update City of Agoura Hills 2021-2029 Housing Element.
- b. Source of persons per household is US Census Quick Facts Persons Per Household Agoura Hills 2019-2023.
- c. Source of housing data is City of Calabasas 2030 General Plan.
- d. Source of persons per household is US Census Quick Facts Persons Per Household Calabasas 2019-2023.
- e. Source of housing data is City of Hidden Hills 2021-2029 Housing Element as adopted July 11, 2022 and revised April 2024.
- f. Source of persons per household data is Southern California Association of Governments City of Hidden Hills 2022 Spatial and Statistical Summary.
- g. Source of housing data is 2021-2029 Housing Element City of Westlake Village Specific Plan.
- h. Source of persons per household is US Census Quick Facts Persons Per Household Westlake Village 2019-2023.
- i. Source of housing data is Los Angeles County Department of Regional Planning, Draft Environmental Impact Report Santa Monica Mountains North Area Plan May 2020.

Sources of Uncertainty in Water Demand Estimates

Agoura Hills

Rate of Growth:
 Land Use Plans: 0.98% per year
 SCAG Projection: 0.46% per year
 2020-2024 Actual: -0.49% per year

Calabasas

Rate of Growth:
 Land Use Plans: 0.62% per year
 SCAG Projection: 0.10% per year
 2020-2024 Actual: -0.52% per year

Hidden Hills

Rate of Growth:
 Land Use Plans: 0.31% per year
 SCAG Projection: 0.26% per year
 2020-2024 Actual: unknown

Westlake Village

Rate of Growth:
 Land Use Plans: 1.10% per year
 SCAG Projection: 0.23% per year
 2020-2024 Actual: -0.75% per year

LA County/SMM

Rate of Growth:
 Land Use Plans: 1.02% per year
 SCAG Projection: 0.25% per year
 2020-2024 Actual: -0.61% per year

DISCUSS:

Conservative approach to rely on land use plans – forecasts from DOF and SCAG lower. Plan for higher demand or lower demand?

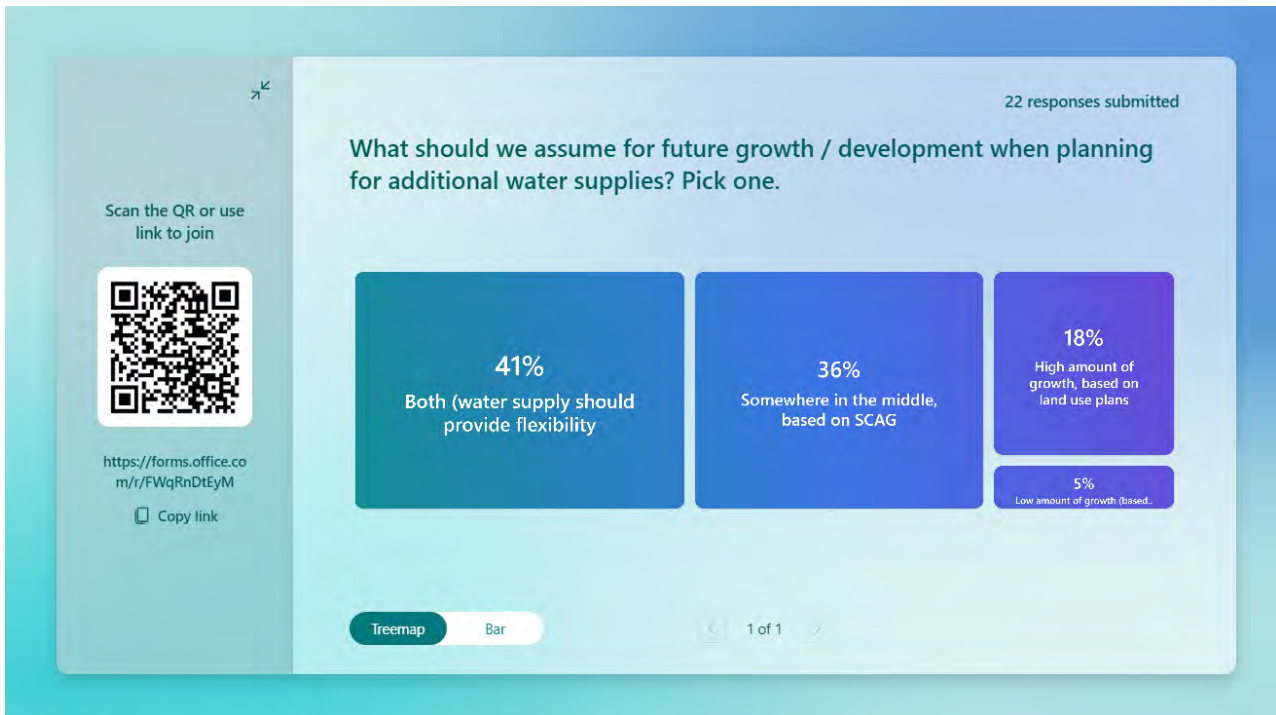
Demand Estimates – High or Low?

LVMWD WSDS W1S3

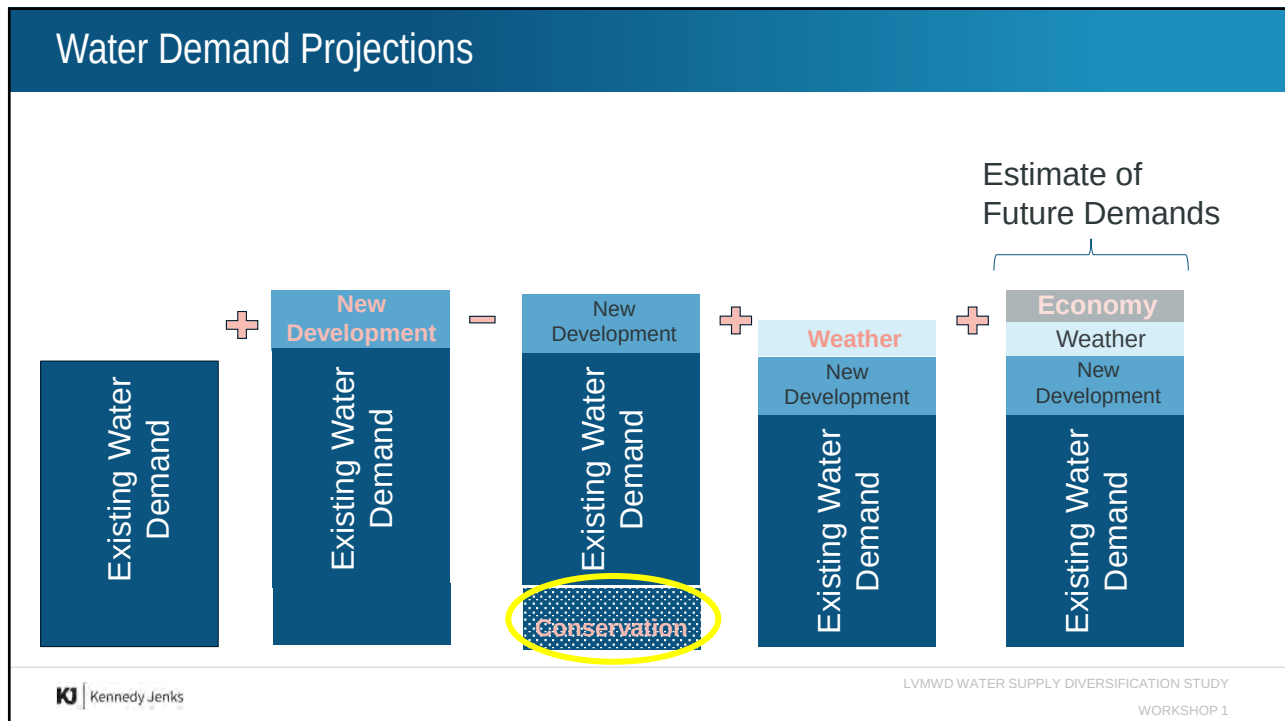


TIME FOR A SURVEY:

Use QR Code at left to go to the survey.

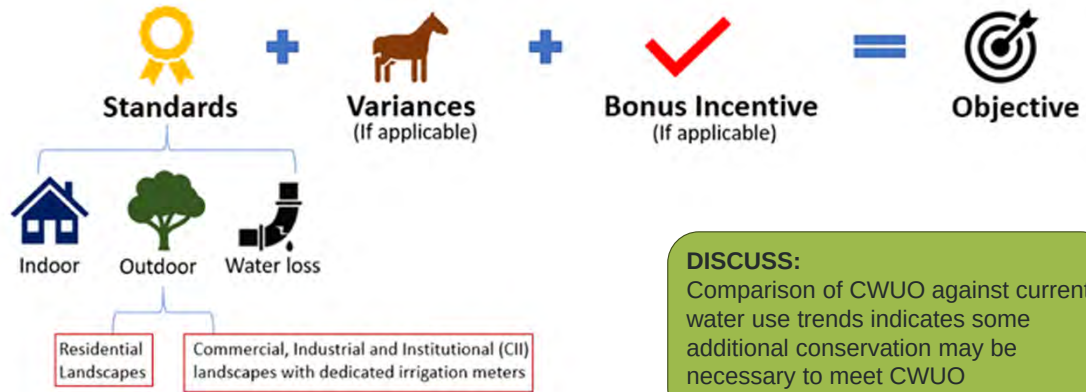


31



32

Effects of Regulation/California Water Use Objective



DISCUSS:
Comparison of CWUO against current water use trends indicates some additional conservation may be necessary to meet CWUO

33

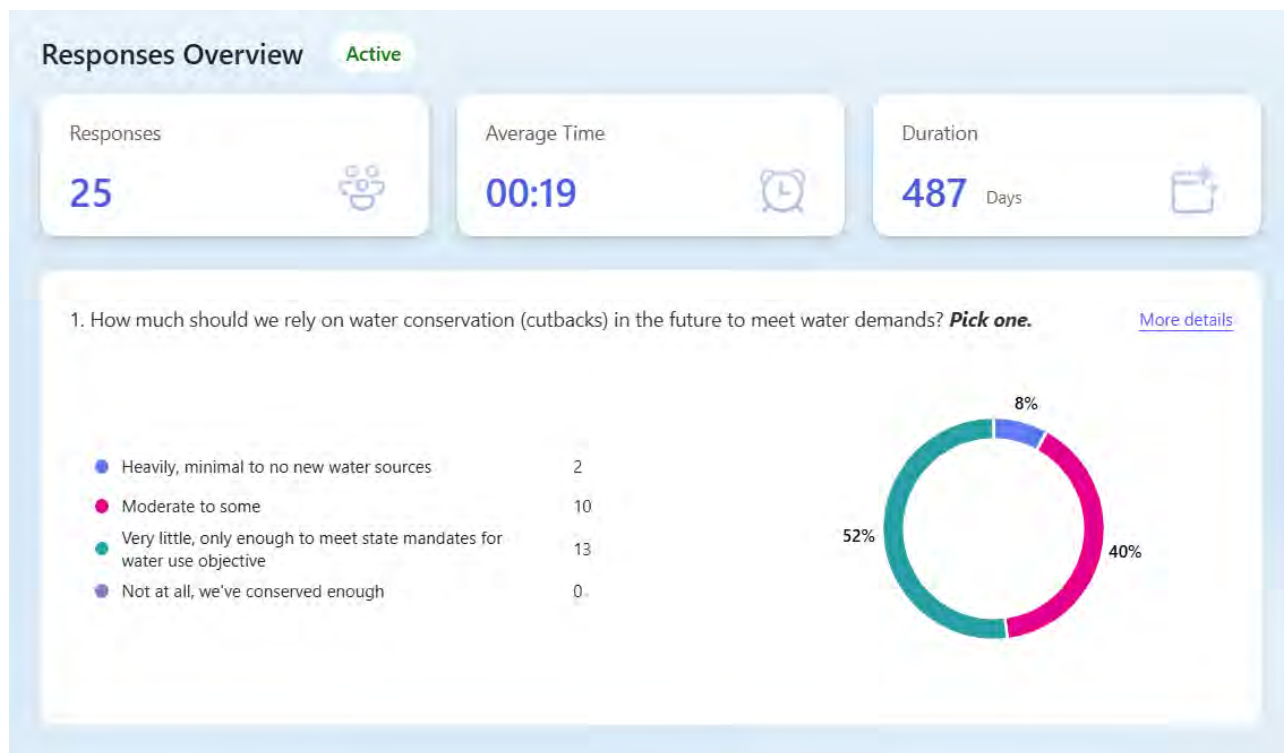
Future Conservation – High or Low?

LVMWD WSDS W1S2

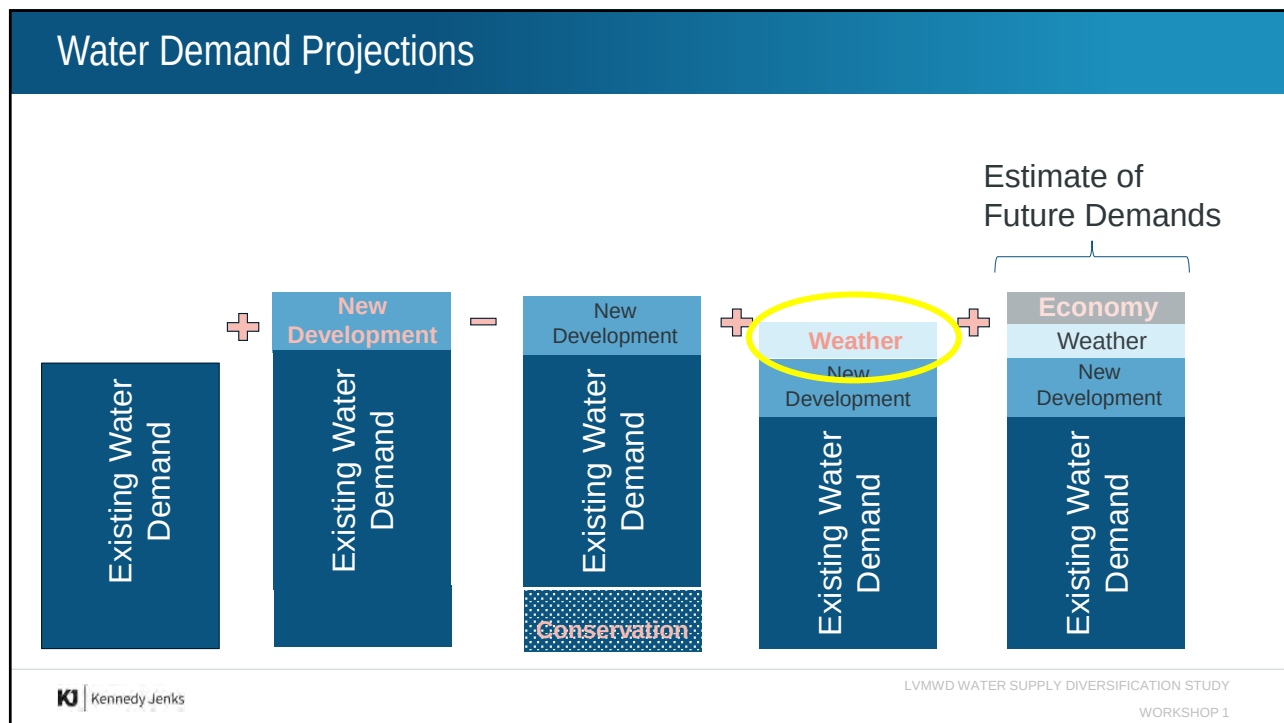


TIME FOR A SURVEY:
Use QR Code at left to go to the survey.

34



35



36

Effects of Climate Change



Increased average maximum temperature



Greater variability in precipitation



Coinciding low-precipitation and above average temperatures = drought

DISCUSS:

From 2010-2022 demand in drought increased by as much as 14%. Demand increases in recent drought counteracted by conservation measures. *How conservative do we want to be in estimating demand increases during drought?*

Effects on Supplies

- Long-Term SWP deliveries estimated to be 13-22 percent lower than under existing conditions
- Less precipitation captured for groundwater recharge
- Less water in the Colorado River system

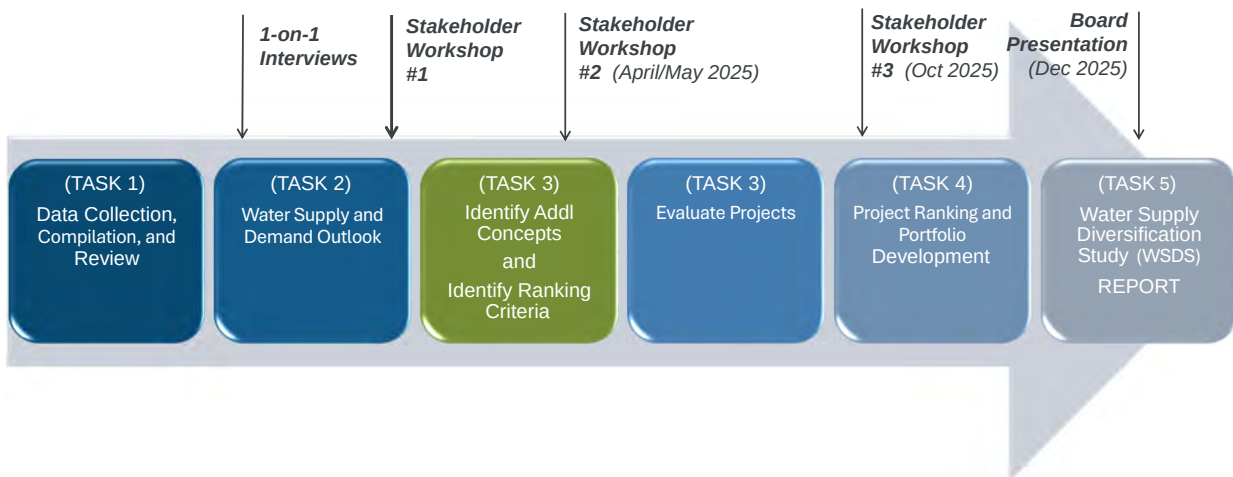
Effect on Demands

- Increased evapotranspiration and increased water demand for vegetation
- Increased demand for water used in cooling systems

WORKSHOP 1

37

Next Steps



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Q & A





WATER SUPPLY DIVERSIFICATION STUDY

May 27, 2025; 11 AM – 2 PM



Stakeholder Workshop 2



1

Today's Agenda

- Introductions
- Purpose of Study
- Background Recap
- Approach & Stakeholder Participation
- Purpose of Workshop No. 2
- Water Supply Concepts – Already Underway/ Being Evaluated

--- LUNCH ---

- Water Supply Concepts - Preliminary
- Evaluation Criteria
- Next Steps
- Q&A

BE READY:
There will be interactive polls again and a breakout session!




2

Introductions



3

This study sets out to identify alternatives to diversify LVMWD's water supply portfolio for the purpose of providing a more reliable supply of water to customers in a cost effective and environmentally sensitive manner under a variety of water supply conditions.

The **goal of the study** is to answer the following questions:

- ✓ What is the reliability of the current supply?
- ✓ To what degree should LVMWD rely on MWD versus local/non-MWD supply?
- ✓ To what extent are the proposed alternative supplies reliable?
- ✓ What are the realistic timelines for planning and implementing various alternative water supplies?
- ✓ How much will the optimal supply portfolio cost and what is the impact to the average customer's water bill?
- ✓ What is the optimal/most-feasible water supply portfolio, near-term and long-term?

Purpose of Study

4

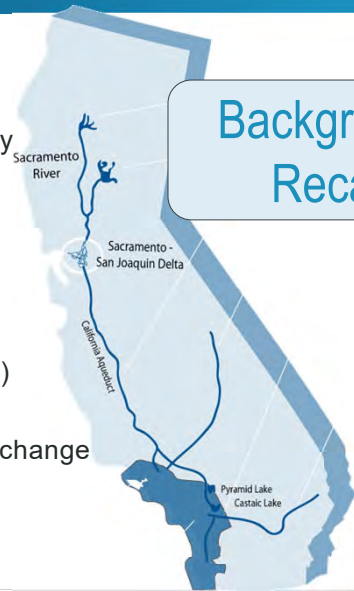
Water Supply & Challenges

Existing Sources of Water Supply:

- State Water Project (SWP) – 95-100% of potable supply
- Colorado River Aqueduct (CRA) – up to 5% of potable supply
- Some from Los Angeles (backup/emergencies)
- Recycled Water (non-potable supply)

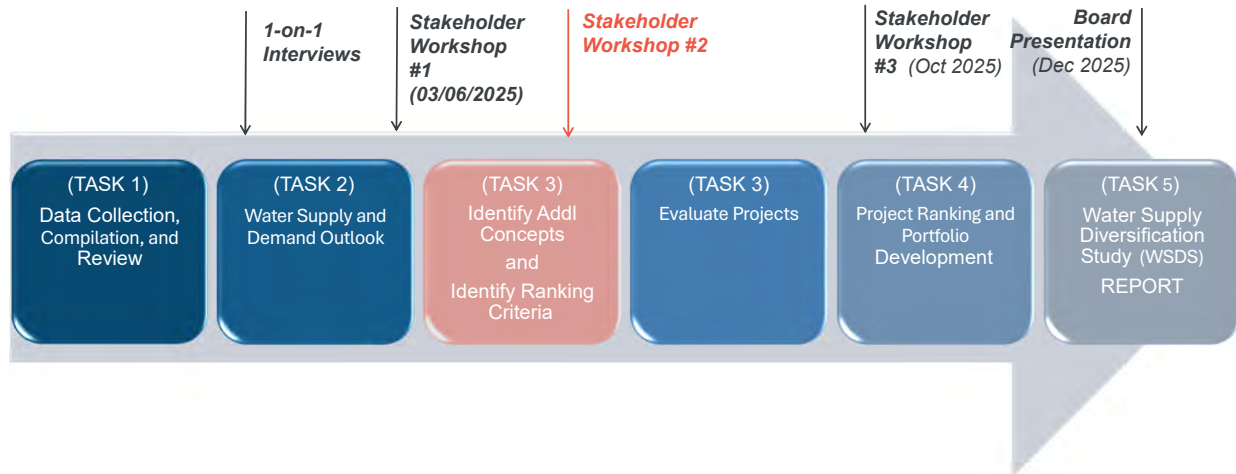
Challenges:

- No/very limited groundwater in LVMWD Service Area
- Groundwater poorly managed in nearby basins
- Colorado River (Lake Powell and Mead at historic low levels)
- Dependence on State Water Project
 - 10% less supply on average in future due to climate change
 - Vulnerable to earthquakes & sea level rise



5

Approach & Stakeholder Participation



6

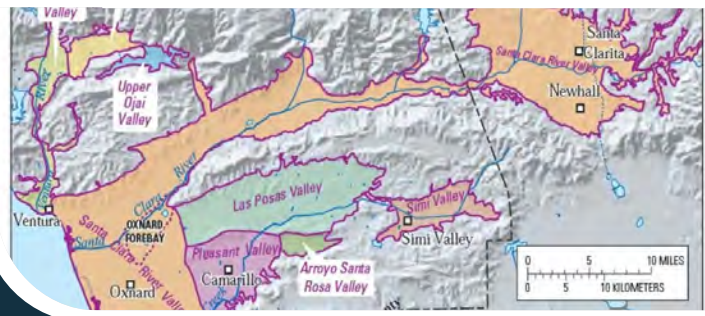
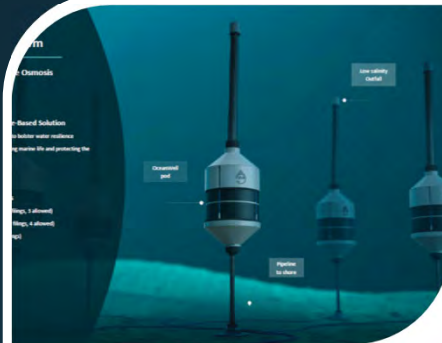
Focus & Desired Outcomes from Workshops

Purpose of Workshop 2

Activities	Focus and Desired Outcomes
Stakeholder Workshop #1 (in-person and virtual)	- Introduce project goals and objectives - Input to water demand projections
1 on-1 Interviews (virtual)	- Present study goals and objectives; solicit input on screening criteria and weighting values - Vet a preliminary concept list - Research and network to gather information on related regional projects - Receive feedback on institutional, regulatory, and feasibility challenges
Stakeholder Workshop #2 (in-person)	Review and facilitate discussion of water supply concepts Identify and understand concepts with insurmountable obstacles Develop a short-list (3 projects) of water supply concepts Develop/Determine evaluation and ranking criteria
Stakeholder Workshop #3 (virtual)	- Walk through short-list of projects and distribute fact sheets - Present initial evaluation results - Facilitate discussion of portfolio development approach

7

Water Supply Concepts



8

Water Supply Concepts

Preliminary Water Supply Concepts

Buy-in/Participate in Calleguas Water Resources Implementation Study (WRIST)
Distant Groundwater Banking
Local Groundwater Banking
Incentivize Agricultural Industry to Conserve Water
Metropolitan Water District System Upgrades – Phase 2
Pipeline Conveyance of Water from Canada using Gas Lines
Recover/Reuse Wastewater from Oil Rig Pumping

Concepts Already Underway or being Evaluated

Other Water Conservation Incentives
Stormwater – Roof Capture / Rainwater Harvesting
Pure Water Project Las Virgenes-Triunfo
OceanWell Desalination
Interconnection with LA County Waterworks District 29 (to access CRA / MWD Central Pool)
Metropolitan Water District System Upgrades – Phase 1

Water Supply Concepts Explained

These concepts are already underway and being evaluated

Concepts Already Underway or being Evaluated

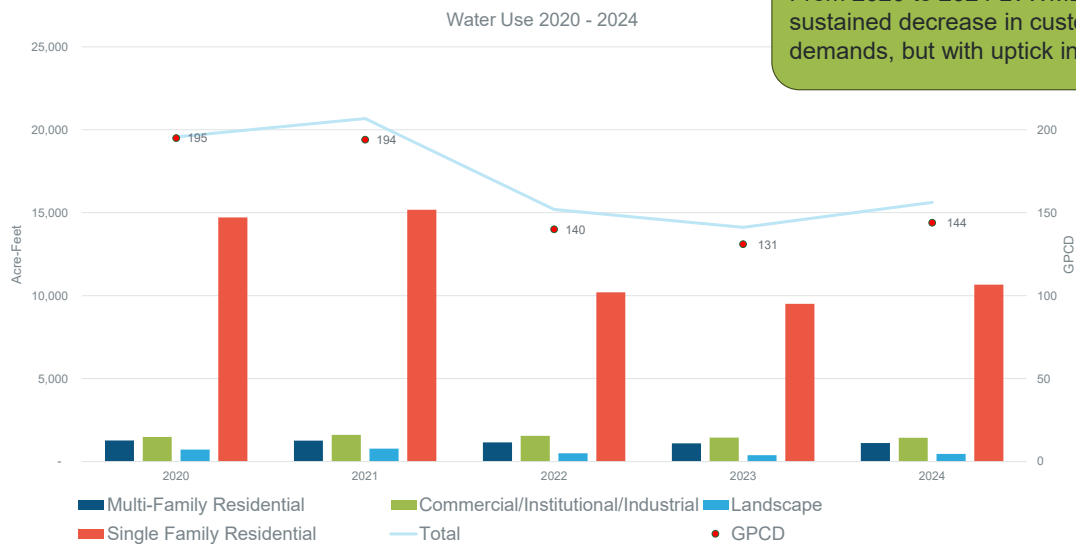
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Pure Water Project Las Virgenes-Triunfo
OceanWell Desalination
Interconnection with LA County Waterworks District 29 (to access CRA / MWD Central Pool)
Metropolitan Water District System Upgrades – Phase 1

Other Water Conservation Incentives

Conservation Action	Past	Present	Future
Budget Based Rates	x	x	x
Landscape Transformation/Turf Rebates	x	x	?
Irrigation Efficiency Program	x	x	?
Weather Based Irrigation Controllers	x	x	?
Rotating Sprinkler Nozzles	x	x	?
Soil Moisture Sensors	x	x	?
Native Plant Kit Rebates	x	x	?
Recycled Water Fill Station	x	x	?
HE Toilet, Washing Machine, Faucet and Showerheads	x	x	?
Flow Monitor/Leak Detection Device Rebates		x	?
High Water Use Account Review	x	x	x
Rain Barrel Give Away	x		?

11

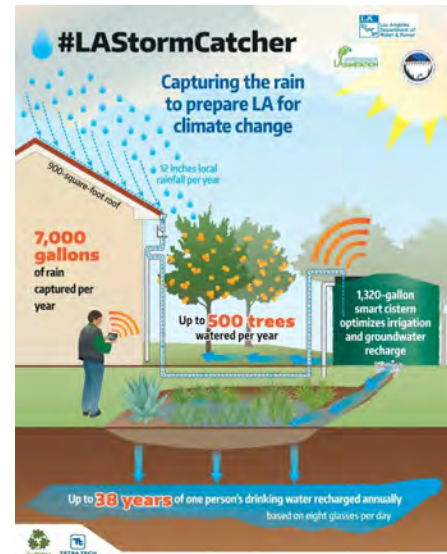
Historic Water Use / Existing Water Use



From 2020 to 2024 LVWMD saw sustained decrease in customer demands, but with uptick in 2024.

12

Stormwater - Roof Capture / Rainwater Harvesting



K Kennedy Jenks

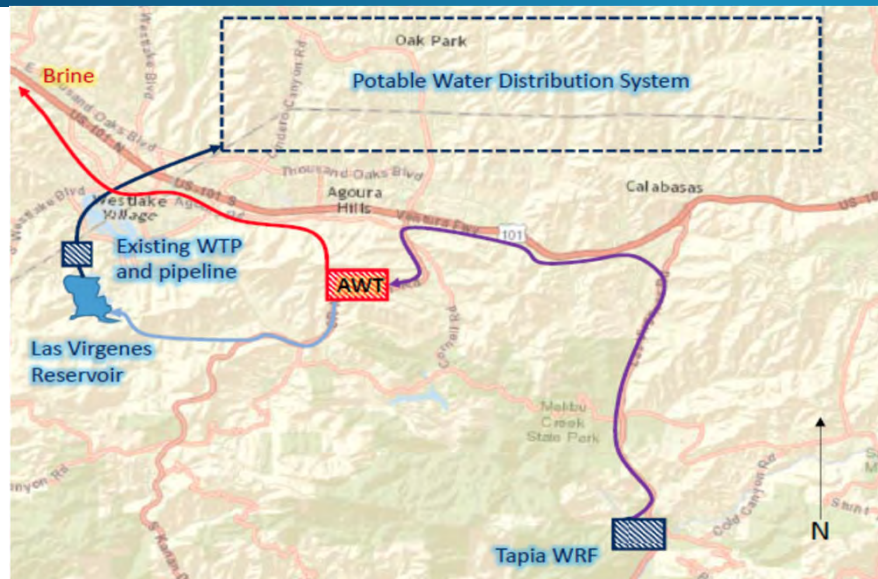
LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 2

13

Pure Water Project Las Virgenes - Triunfo

- Planning since 2015
- Regulatory Compliance (discharges to Malibu Creek)
- Advance treat and reuse excess reclaimed water from Tapia WRF
- Up to 5,000 acre-feet to LVMWD and Triunfo WSD
- 6 mgd peak capacity
- Currently 30% designed
- Construction start in early 2026
- On-line in 2029
- \$466 million estimate



K Kennedy Jenks

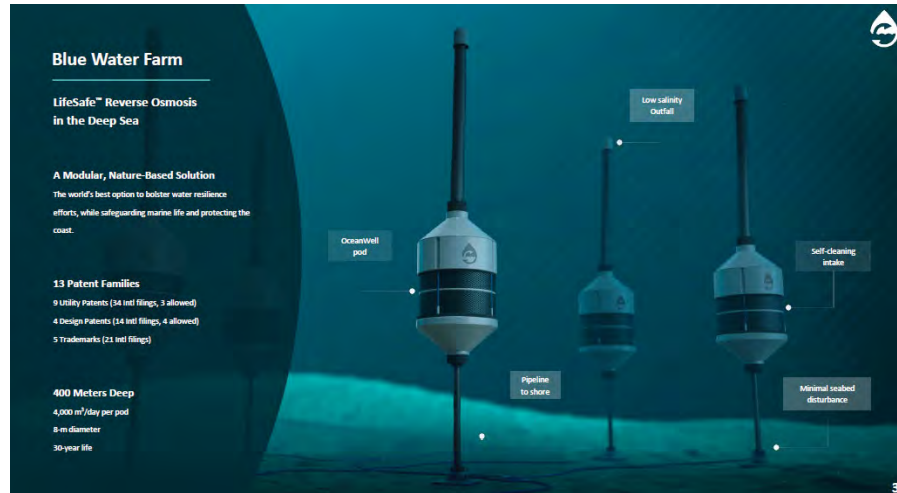
LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 2

14

OceanWell Desalination

- “Conventional” probably not feasible
- Piloting OceanWell Inc. technology
 - Less energy
 - Small footprint
 - Safer for fish/sea life
- Could provide 20% or more of water supply
- 2030+
- Cost unknown



15

Interconnection with LA County Waterworks District 29



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MWD System Upgrades – Phase 1



17

Lunch

Lunch to wrap by 12:15



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Water Supply Concepts Explained

This group will be selecting concepts to evaluate for this study

Preliminary Water Supply Concepts

Buy-in/Participate in Calleguas Water Resources Implementation Study (WRIST)
Distant Groundwater Banking
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Incentivize Agricultural Industry to Conserve Water
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Pipeline Conveyance of Water from Canada using Gas Lines
Recover/Reuse Wastewater from Oil Rig Pumping

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Participate in Calleguas Water Resources Implementation Study (WRIST)



- Calleguas determined that its future will involve greater resilience through partnerships and regional collaboration to develop water supply, storage, conveyance, and programs
- Developed preferred portfolio of projects to address long-term supply reliability and resiliency
- Map shows locations of projects characterized by benefit category and pressure zone regions

20

Participate in Callegaus WRIST (continued)

Draft Preferred Portfolio

Common to all Hybrid Portfolios

- Oxnard AWPf Expansion and IPR Project
- Northern Reach of Calleguas Creek Watershed Desalter Project
- Santa Rosa Valley Desalter/ Recharge
- West-East Transmission
- New Newbury Park Wells with Treatment
- Increase Pleasant Valley Basin Pumping Capacity to Extract Camrosa Water District Credits

Other Top Performing Projects from Hybrid Portfolios

- Additional ASR in Santa Paula Basin
- Oxnard Plain Program
- South Oxnard Plain Brackish Water Treatment Facility (UWCD Extraction Barrier Brackish Water Treatment Project with conveyance to Calleguas)
- External Groundwater Bank
- Expansion of Camrosa Non-Potable Water System

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Distant Groundwater Banking

- Improves existing SWP supply
- Potential Opportunities:
 - AVEK
 - Semi-Tropic
 - Irvine Ranch Water District
 - Kern Delta
 - Arvin-Edison
 - Mojave



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Distant Groundwater Banking (continued)

AVEK	Semi-Tropic	Irvine Ranch
Water Banks in the Antelope Valley: Willow Springs, High Desert, and Westside Water Banks	Water Bank in Kern County – can store 1.65 MAF	Water Bank located in Kern County (through a partnership)
Multiple water bank options near West Branch of the CA Aqueduct	One of the largest banking programs in the world	Purchase water from Dudley Ridge Water District when available (up to 5,000 AF)
Bank in wet years on one or more of the banks	Bank in wet years	Bank water in IRWD water bank
Recover water when needed	Return stored water to the CA Aqueduct in dry years for use by partners	Recover water when needed



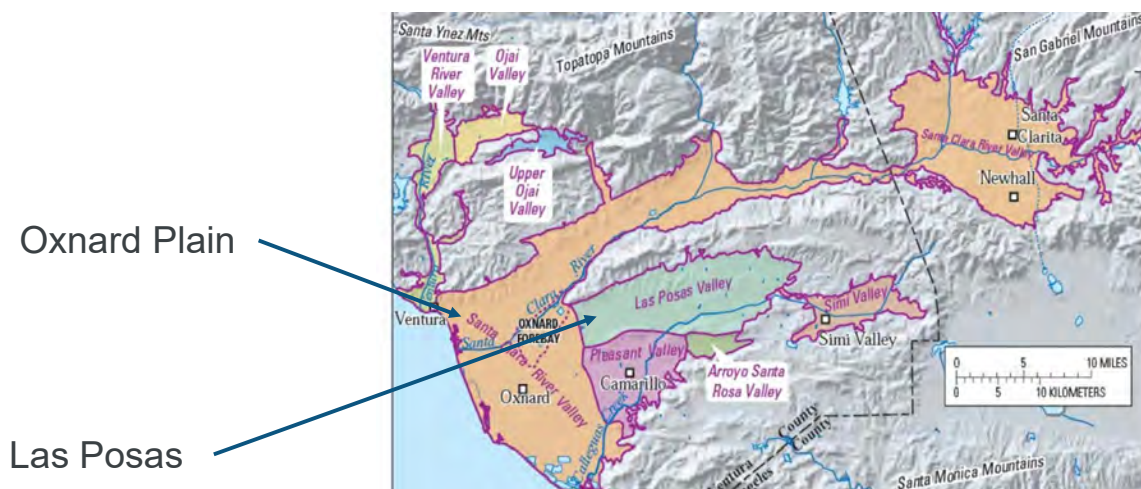
KJ Kennedy Jenks

LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 2

23

Local Groundwater Banking



KJ Kennedy Jenks

LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 2

24

Incentivize Agricultural Industry to Conserve Water

- Purchase water rights



Recent costs (2021-2025) for following farms on Colorado River, \$233 to \$457/AF saved

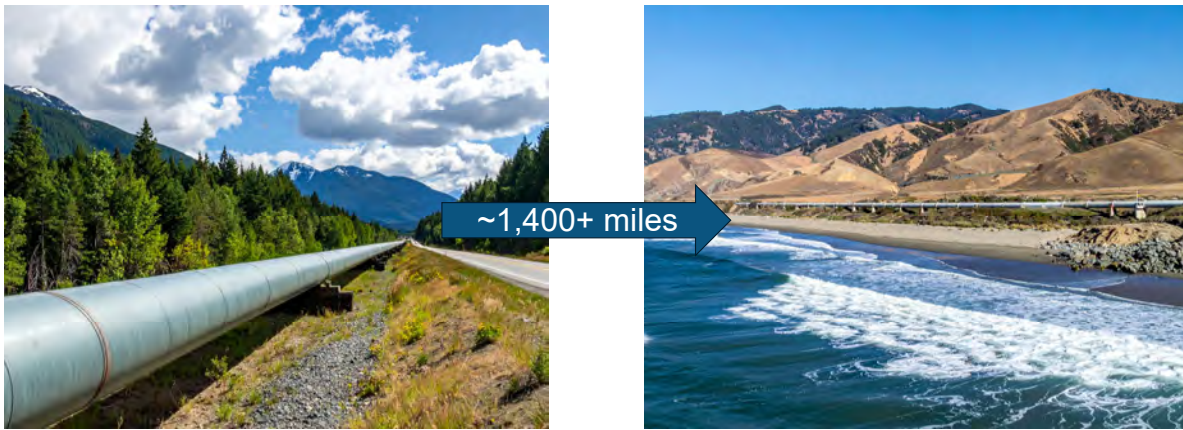
25

Metropolitan Water District System Upgrades – Phase 2



26

Pipeline Conveyance of Water from Canada Using Gas Lines



Recover/Reuse Wastewater from Oil Rig Pumping

- Byproduct of oil extraction
- Poses significant environmental and operational challenges
- Can contain mix of toxic substances (ie, oil & grease, heavy metals, chemicals used in drilling...)



Preliminary List of Water Supply Concepts

Vote on these concepts (pick 3)

Preliminary Water Supply Concepts

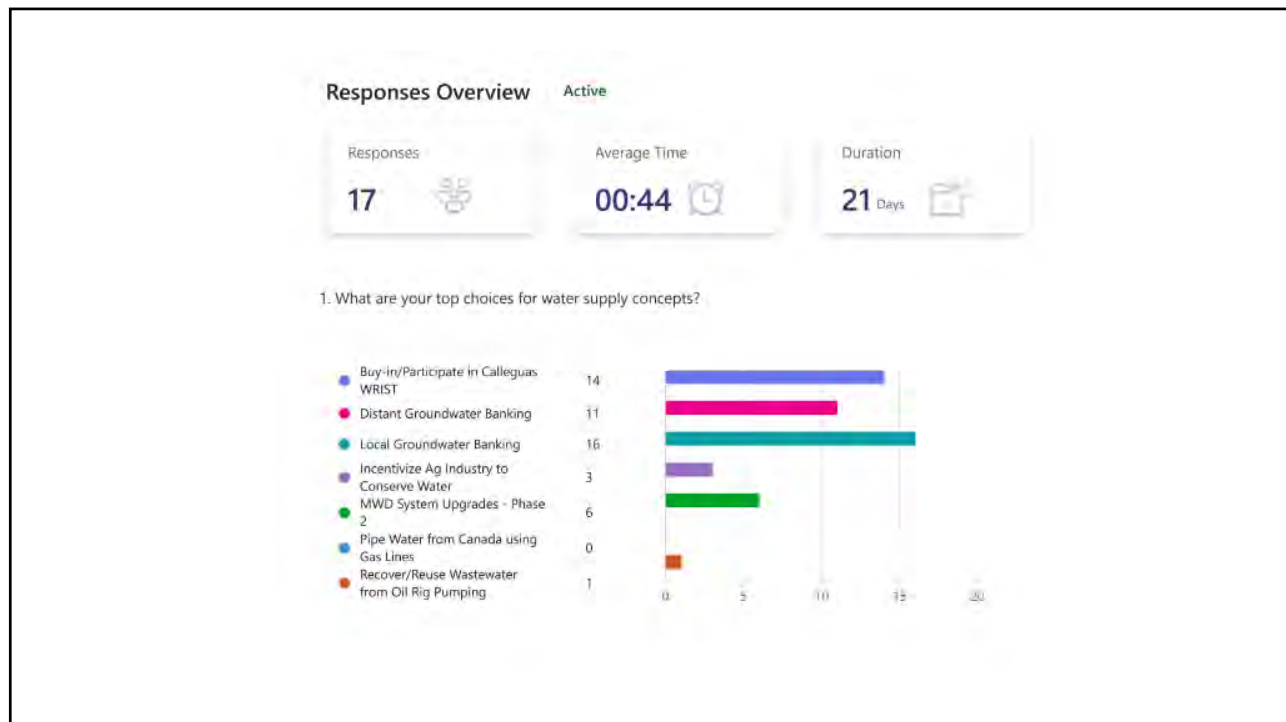
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Preliminary List of Water Supply Concepts

WSDS Workshop #2 - Water
Supply Concepts



TIME FOR A POLL:
Use QR Code to go to the poll.
Please select **3** options.



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Evaluation Criteria	
Results of One-on-One Interviews	
Criteria	# of time Selected by Stakeholders
Ability to provide supply during a drought	6
Cost / impact to water bills	6
Timeline for implementation	4
Ability to provide new core water supplies	3
Environmental impacts	3
Public acceptance	2
Provides Environmental Benefit	1
Supply for Emergency	1
Verified efficacy/relies on technology widely used in California	0
Local control	0

Kennedy Jenks

LVMWD WATER SUPPLY DIVERSIFICATION STUDY
 WORKSHOP 2

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Evaluation Criteria

BREAKOUT SESSION – 15 Minutes

- Count to determine groups
- Go to your designated group area
- Designate group leader
- Review criteria
- Identify any new criteria
- As a group, rank criteria 1-10
- Fill out scorecard and list group members
- After 15 minutes, group leader reports on results
- Submit scorecard

Ranking Evaluation Criteria	1	2	3	4	5	6	7	8	9	10
Supply During a Drought										
Cost/Impact to Water Bills										
Implementation Timeline										
Provide New Core Supplies										
Environmental Impacts										
Public Acceptance										
Environmental Benefit										
Emergency Supply										
Uses Proven Technology										
Local Control										

Evaluation Criteria

Results of One-on-One Interviews

Criteria	# of time Selected by Stakeholders
Ability to provide supply during a drought	6
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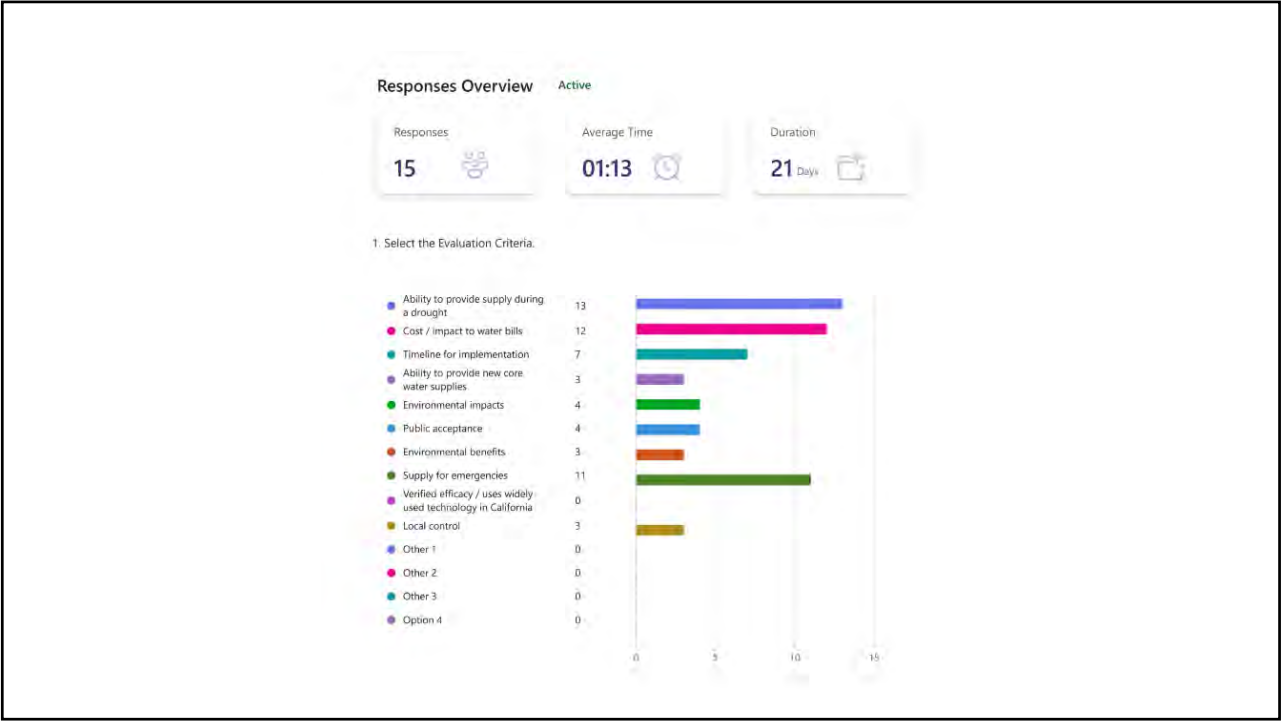
TIME FOR A POLL:

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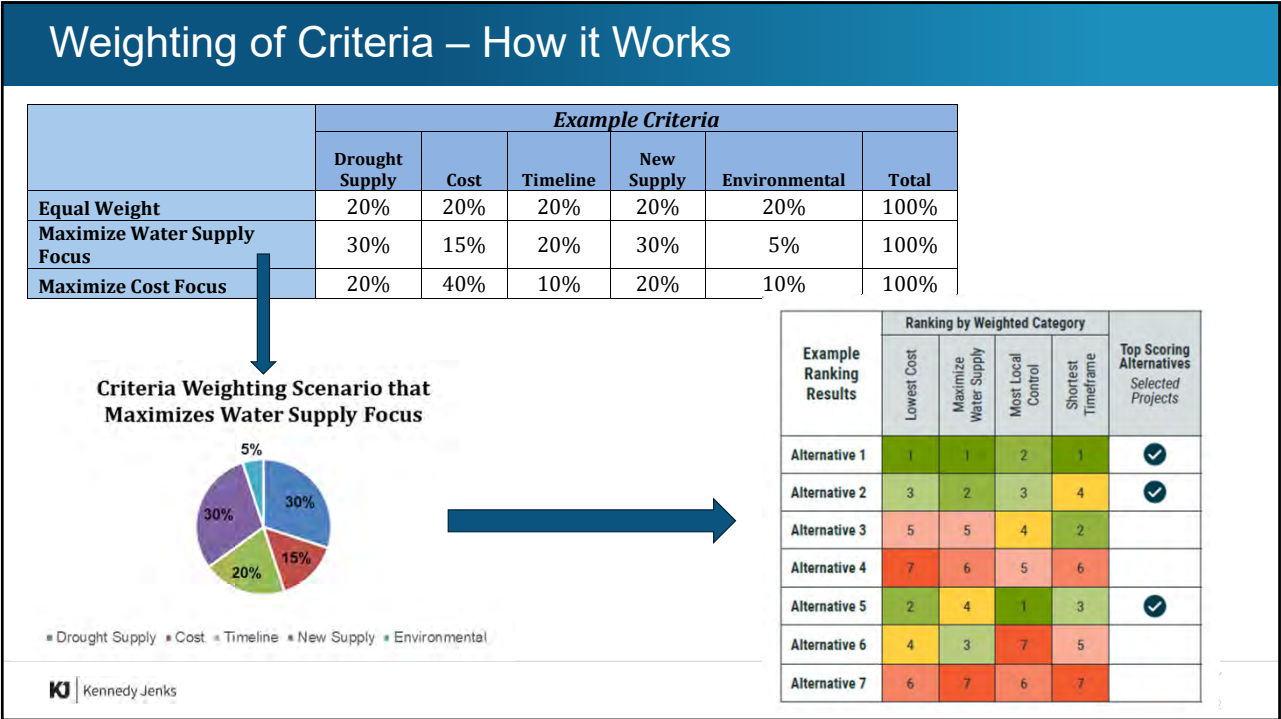
Pick your top **4** choices.

Workshop #2 - Evaluation Criteria

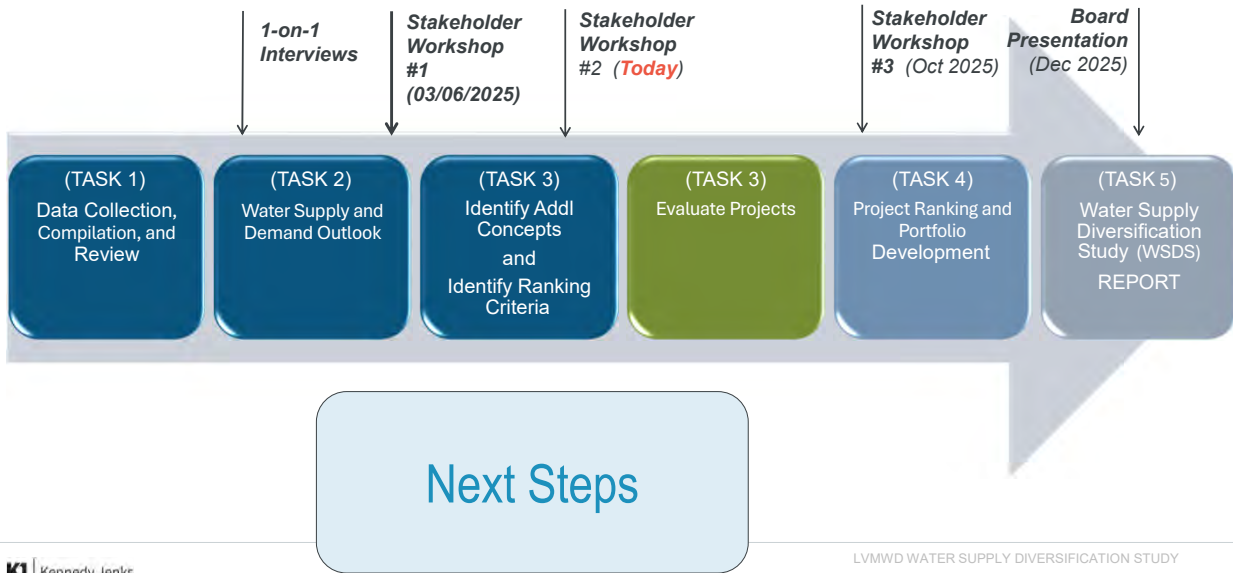




35



Next Steps





WATER SUPPLY DIVERSIFICATION STUDY

February 2, 2026; 10 AM – 2 PM



Stakeholder Workshop 3



1

Welcome and
Introductions



2

Today's Agenda

- Welcome and Introductions
- Recap/Refresher
- Overview of Report
- Screening of Concepts

Coffee Break ☺

- Review of Concepts 1, 2A, 2C

--- LUNCH ---

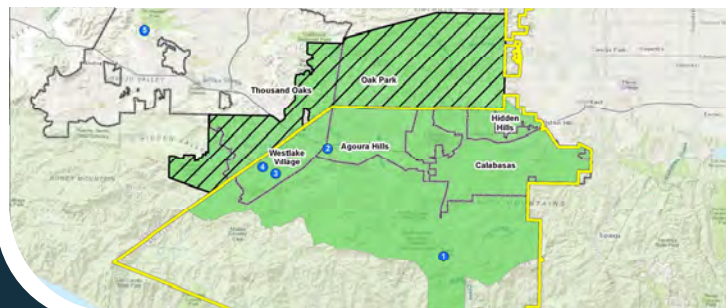
- Review of Concepts 3 and 4
- Q&A
- Wrap Up/Next Steps

BE READY:
There will be interactive polls again and breakout sessions!



3

Recap/Refresher



4

This study sets out to identify alternatives to diversify LVMWD's water supply portfolio for the purpose of providing a more reliable supply of water to customers in a cost effective and environmentally sensitive manner under a variety of water supply conditions.

Purpose of Study

The **goal of the study** is to answer the following questions:

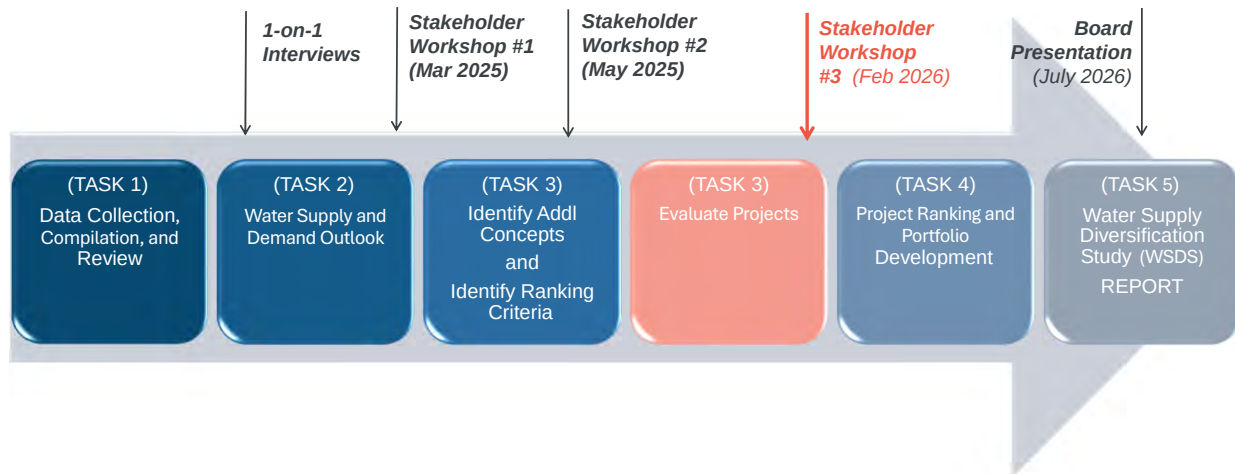
- ✓ What is the reliability of the current supply?
- ✓ To what degree should LVMWD rely on MWD versus local/non-MWD supply?
- ✓ To what extent are the proposed alternative supplies reliable?
- ✓ What are the realistic timelines for planning and implementing various alternative water supplies?
- ✓ How much will the optimal supply portfolio cost and what is the impact to the average customer's water bill?
- ✓ What is the optimal/most-feasible water supply portfolio, near-term and long-term?

Diversify supply

Avoid Mandatory Conservation

5

Approach & Stakeholder Participation



6

Focus of Workshops

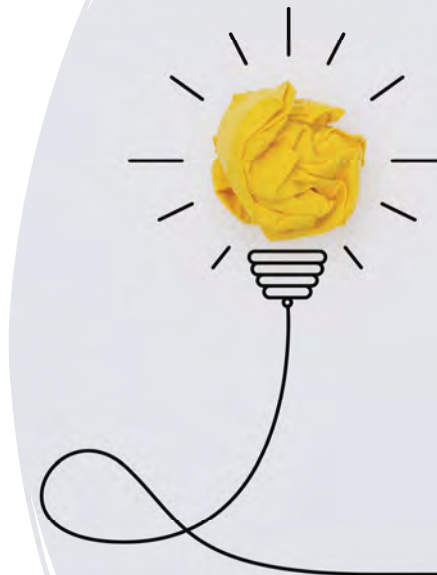
Purpose of Workshop 3

Activities	Focus and Desired Outcomes
Stakeholder Workshop #1 (in-person and virtual)	- Introduce project goals and objectives - Input to water demand projections
1 on-1 Interviews (virtual)	- Present study goals and objectives; solicit input on screening criteria and weighting values - Vet a preliminary concept list - Research and network to gather information on related regional projects - Receive feedback on institutional, regulatory, and feasibility challenges
Stakeholder Workshop #2 (in-person)	- Review and facilitate discussion of water supply concepts - Identify and understand concepts with insurmountable obstacles - Develop a short-list (3 projects) of water supply concepts - Develop/Determine evaluation and ranking criteria
Stakeholder Workshop #3 (in-person)	- Walk through short-list of concepts and distribute fact sheets - Review screening and scoring of concepts - Facilitate discussion of portfolio development approach (if time allows)
Stakeholder Workshop #4 (virtual, TBD) JUST ADDED!	- Review refined report - Review portfolios - Take any final feedback

7

Discussion

- Questions about purpose of Study
- Questions about progress of Study
- Questions about Stakeholder process
- Other



8

Overview of Draft Report



9

Draft Report

- Introduction
- Status Quo Water Supply Portfolio
- Water Supply Concepts Identified
- Screening of Concepts
- Recommendations



10

Draft Report



Introduction

Overview of Las Virgenes Municipal Water District

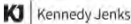
Purpose of the Study

Need for Alternative Supplies

Project Approach

Planning Period

Approach to Costing Supply Alternatives



LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 3

11

Draft Report



Status Quo Portfolio

Anticipated Demands

Current Normal and Drought Year Portfolio

Future (Status Quo) Portfolio

Cost of Metropolitan Supplies

Other Planned Supplies

See Handout



LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 3

12

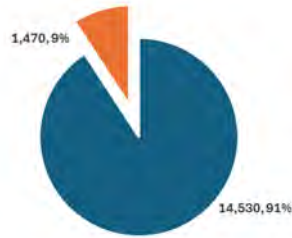


WATER SUPPLY DIVERSIFICATION STUDY

Workshop #3 Handout 1

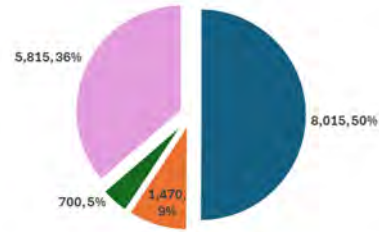
STATUS QUO PORTFOLIOS

Near-Term (2030) Portfolio – Normal Year



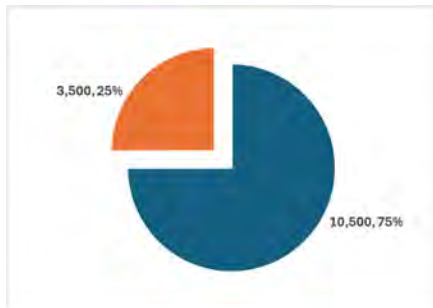
Melded Cost (\$2024) \$2,040/AF

Near-Term (2030) Portfolio - Drought Year



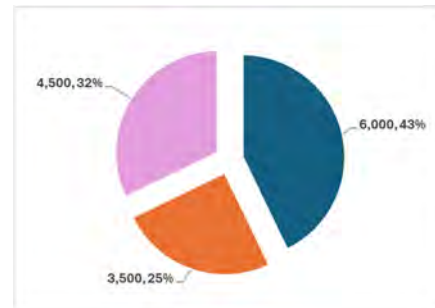
Melded Cost (\$2024) \$2,423/AF

Mid-Term (2045) – Normal Year



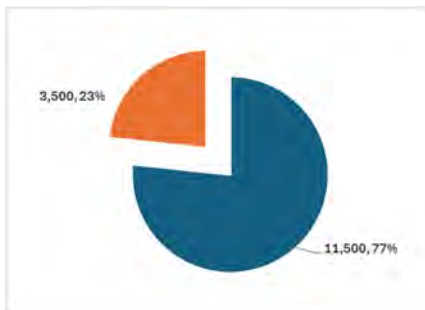
Melded Cost (\$2024) \$3,291/AF

Mid-Term (2045) – Drought Year



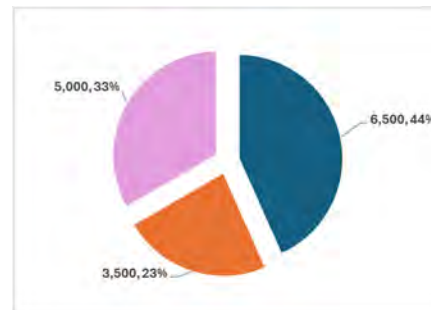
Melded Cost (\$2024) \$3,091/AF

Long-Term (2065) – Normal Year



Melded Cost (\$2024) \$6,711

Long-Term (2065) - Drought

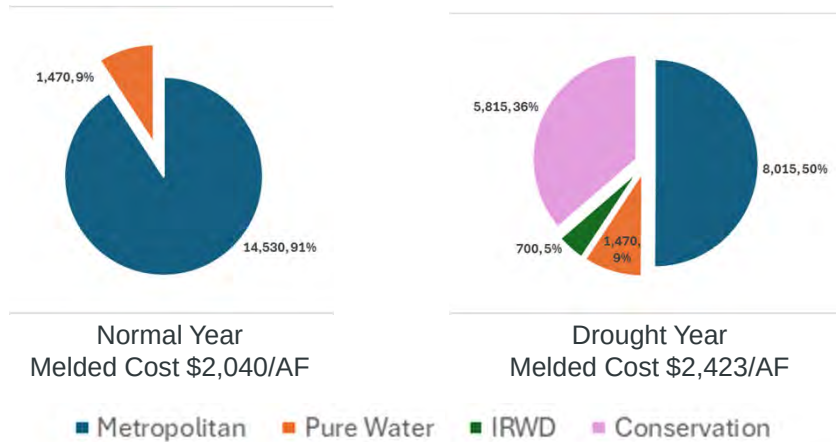


Melded Cost (\$2024) \$5,998

■ Metropolitan ■ Pure Water ■ IRWD ■ Conservation

Discussion

Near-Term (2030) Status Quo Portfolios

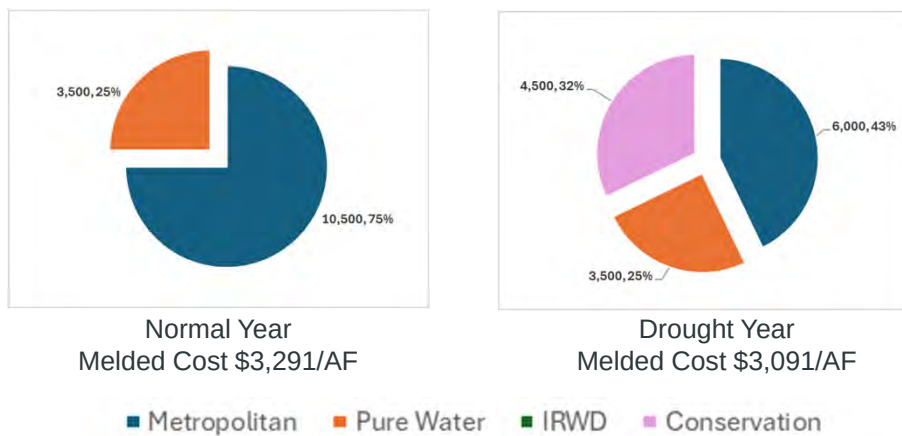


Status Quo
Portfolio

13

Discussion

Mid-Term (2045) Status Quo Portfolios

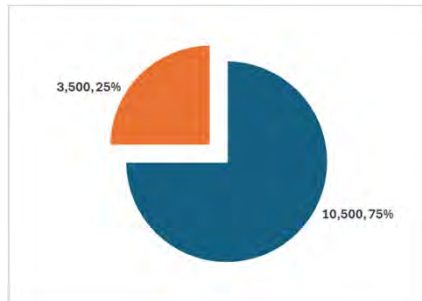


Status Quo
Portfolio

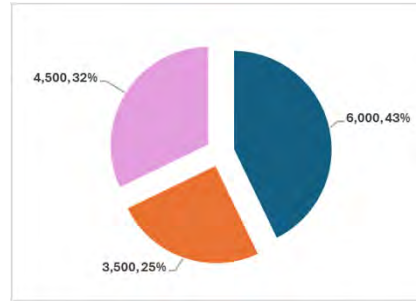
14

Discussion

Long-Term (2065) Status Quo Portfolios



Normal Year
Melded Cost \$6,711/AF



Drought Year
Melded Cost \$5,998/AF

■ Metropolitan ■ Pure Water ■ IRWD ■ Conservation

Status Quo
Portfolio

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Discussion

Costing relies on assumptions about how the cost of Metropolitan supplies and services will increase overtime.

Present Value (\$2024) Estimated Cost Scenarios for Metropolitan Water

Year	2025	2035	2040	2045	2050	2055	2060	2065
High Scenario	1,550	2,509	3,357	4,493	6,012	8,046	10,767	14,408
Medium Scenario	1,550	2,509	3,052	3,713	4,518	5,497	6,688	8,137
Low Scenario	1,550	2,509	2,770	3,058	3,376	3,728	4,116	4,544
	Based on Metropolitan Estimates		Forecasted					

Status Quo
Portfolio

16

Discussion

Other Planned Actions that May Benefit LVMWD Supplies:

- Sepulveda Pass Improvements Phase 1
- Sepulveda Pass Improvements Phase 2
- OceanWell

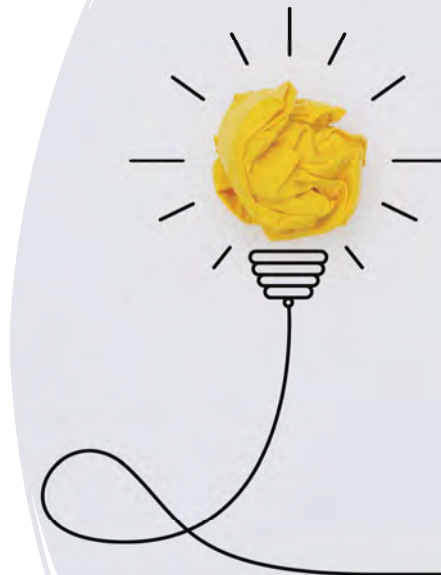
Status Quo Portfolio

17

Discussion

Questions on Project Assumptions?

- Planning Period
- Anticipated Demands
- Status Quo Portfolio
- Cost of Metropolitan Supplies
- Other Planned Supplies



18

Draft Report



Water Supply Concepts

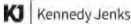
Rooftop Capture of Stormwater

Participation in Brackish Water Treatment via United

Groundwater Banking Outside of LA and Ven Counties

Participation in Calleguas WRIST via City of Oxnard AWPf

More Detail Later in Agenda



LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 3

19

Draft Report



Screening of Concepts

Development of Concept Screening

Scoring Approach

Stakeholder Selected Criteria

Theme Based Ranking

Additional Considerations

Findings

Input Needed

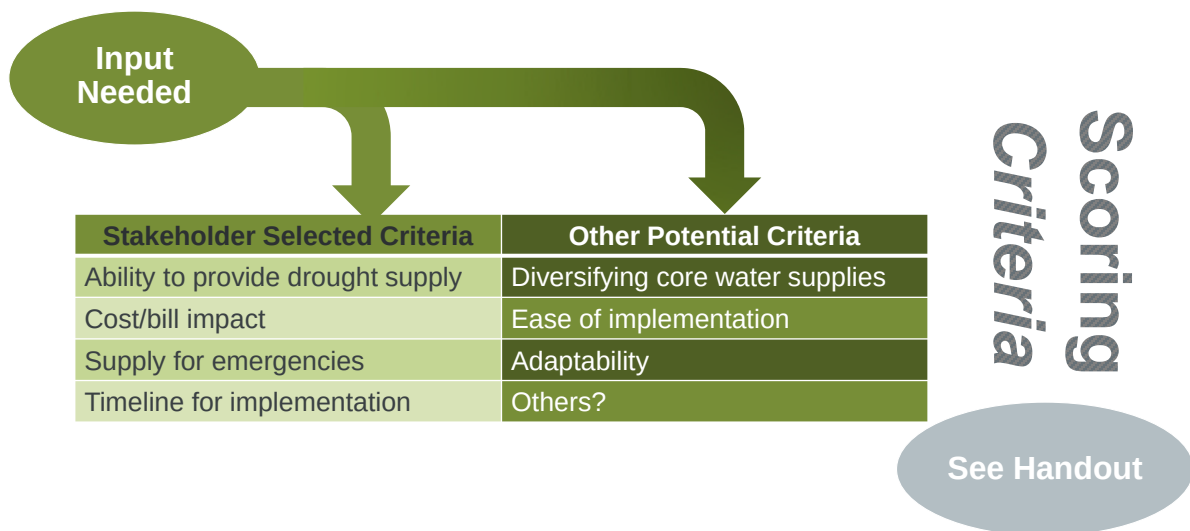


LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 3

20

Discussion



21

Discussion

Primary Scoring	
8	Clearly the concept that best meets the criteria
6	The concept addresses the criteria but is not the best performer
4	The concept meets the intent of the criteria
0	The concept does not address the criteria

Secondary Scoring	
- 2	There are significant technical or institutional challenges related to achieving the concept's potential. Does not apply when primary score less than 4.
- 1	There are technical or institutional challenges to achieving concept potential. Does not apply when primary score less than 4.

Scoring Approach

See Handout

22



WATER SUPPLY DIVERSIFICATION STUDY

Workshop #3 Handout 2

Stakeholder Criteria Selected in Workshop #2

- Ability to provide drought supply
- Cost/bill impact
- Supply for Emergencies
- Timeline for implementation

Recommended Criteria Consultant Team

- Diversifying core water supplies
- Ease of implementation
- Adaptability

Developed in Workshop #3

1

2

3



WATER SUPPLY DIVERSIFICATION STUDY

Workshop #3 Handout 3

TO ASSIST WITH GROUP EXERCISE

Primary Scoring

- | | |
|---|--|
| 8 | Clearly the concept that best addresses the criteria |
| 6 | The concept addresses the criteria but is not the best performer |
| 4 | The concept meets the intent of the criteria |
| 0 | The concept does not address the criteria |

Secondary Scoring

- | | |
|----|--|
| -2 | There are significant technical or institutional challenges related to achieving the concept's potential. Does not apply when primary score less than 4. |
| -1 | There are technical or institutional challenges to achieving concept potential. Does not apply when primary score less than 4. |

Discussion

Average Monthly Residential Water Bill Based on Efficient Use (Tier 1 only)

wholesale cost of water (2024\$)		HCF/Month per Residential Household (\$2024)			
\$/AF	\$/HCF	23	20	15	13
\$1,256	\$2.88	\$153.62	\$140.81	\$119.45	\$110.91
\$2,000	\$4.59	\$174.47	\$158.93	\$133.05	\$122.69
\$2,500	\$5.74	\$196.62	\$178.20	\$147.49	\$135.21
\$3,000	\$6.89	\$218.77	\$197.46	\$161.94	\$147.73
\$3,500	\$8.03	\$240.73	\$216.55	\$176.26	\$160.14
\$4,000	\$9.18	\$262.88	\$235.81	\$190.71	\$172.66
\$4,500	\$10.33	\$285.03	\$255.08	\$205.15	\$185.18
\$5,000	\$11.48	\$307.18	\$274.34	\$219.60	\$197.70
\$5,500	\$12.63	\$329.33	\$293.60	\$234.05	\$210.22
\$6,000	\$13.77	\$351.29	\$312.70	\$248.37	\$222.64
\$6,500	\$14.92	\$373.44	\$331.96	\$262.81	\$235.16

Information to
Assist Scoring
See Handout

23

Draft Report



Candidate
Near-Term Actions

Candidate
Mid-Term Actions

More
Detail
Later in
Agenda

Recommendations

24



WATER SUPPLY DIVERSIFICATION STUDY

Workshop #3 Handout 4

Bill impacts associated with different project costs (\$/AF Estimated Impact to Efficient Customer)

Average Monthly Residential Water Bill Based on Efficient Use (Tier 1 only)					
wholesale cost of water (2024\$)		HCF/Month per Residential Household (\$2024)			
\$/AF	\$/HCF	23	20	15	13
\$1,256	\$2.88	\$153.62	\$140.81	\$119.45	\$110.91
\$2,000	\$4.59	\$174.47	\$158.93	\$133.05	\$122.69
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\$6,000	\$13.77	\$351.29	\$312.70	\$248.37	\$222.64
\$6,500	\$14.92	\$373.44	\$331.96	\$262.81	\$235.16

Coffee Break

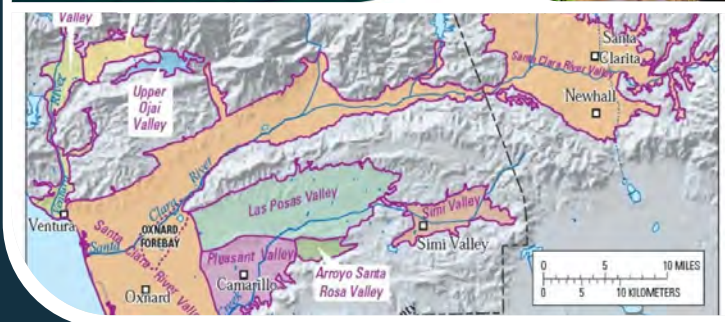
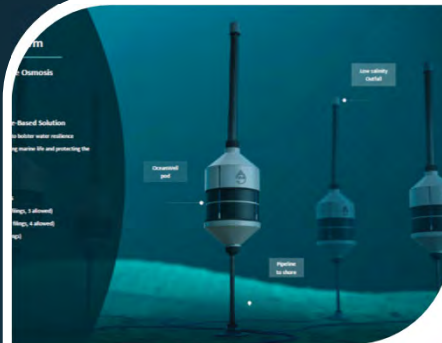
Break to wrap by 11:10

KJ Kennedy Jenks



25

Review of Concepts



26

Review of Concepts

Group Work

- Please form Groups of 4-5
- Use handout to score each concept (walk through)
- Use Handouts 2 and 3 to familiarize Group with evaluation criteria and scoring approach
- Use Handout 4 to understand bill impacts
- Take 5 minutes as group after presentation of each concept to score that concept



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Group Work

	1 Rooftop Capture of Stormwater 2A	Groundwater Banking Partnership IRWD	2C Silvertip Water Reliability Program	3 Participation WRIST Study via City of Oxnard AWPF	4 Participation in Brackish Water Treatment via United
Primary Scoring - Score each concept 0, 4, 6, or 8 on each criteria (8 best, 0 worst)					
Ability to provide drought supply					
Cost/bill impact					
Supply for emergencies					
Timeline for implementation					
Diversifying core water supplies					
Ease of implementation					
Adaptability					
Other/Write in					
Other/Write in					
Other/Write in					
Primary Score (sum of rows above)					

	1 Rooftop Capture of Stormwater 2A	Groundwater Banking Partnership IRWD	2C Silvertip Water Reliability Program	3 Participation WRIST Study via City of Oxnard AWPF	4 Participation in Brackish Water Treatment via United
Secondary Scoring - Score each concept 0, -1 or -2 (0 best, -2 worst)					
-2 if significant technical or institutional challenges related to achieving the concepts potential. Does not apply when primary score less than 4.					
-1 if technical of institutional challenges to achieving concept potential. Does not apply when primary score less than 4.					
Secondary Score					
Primary + Secondary Score					

28



WATER SUPPLY DIVERSIFICATION STUDY

Workshop #3 Handout 5

	1 Rooftop Capture of Stormwater	2A Groundwater Banking Partnership IRWD	2C Participation Silvertip Water Reliability Program	3 Participation in Calleguas WRIST Study via City of Oxnard AWP	4 Participation in Brackish Water Treatment via United
Primary Scoring - Score each concept 0, 4, 6, or 8 on each criteria (8 best, 0 worst)					
Ability to provide drought supply					
Cost/bill impact					
Supply for emergencies					
Timeline for implementation					
Diversifying core water supplies					
Ease of implementation					
Adaptability					
Other/Write in					
Other/Write in					
Other/Write in					
Primary Score (sum of rows above)					
Secondary Scoring – Score each concept 0, -1 or -2 (0 best, -2 worst)					
-2 if significant technical or institutional challenges related to achieving the concepts potential. Does not apply when primary score less than 4.					
-1 if technical of institutional challenges to achieving concept potential. Does not apply when primary score less than 4.					
Secondary Score					
Primary + Secondary Score					

Concepts Evaluated in Report

1. Rooftop Capture of Stormwater
2. Groundwater Banking Outside of Los Angeles and Ventura Counties
 - A. Groundwater Banking Partnership Irvine Ranch Water District
 - B. Participation in Semitropic Water Bank
 - C. Participation in Silvertip Water Reliability Program
3. Participation in Calleguas WRIST Study via City of Oxnard AWPf
4. Participation in Brackish Water Treatment via United

Concept 1. Rooftop Capture of Stormwater



Photo: LA Sanitation, LA Department of Water and Power, Los Angeles County Flood Control, and Tree People 2016.

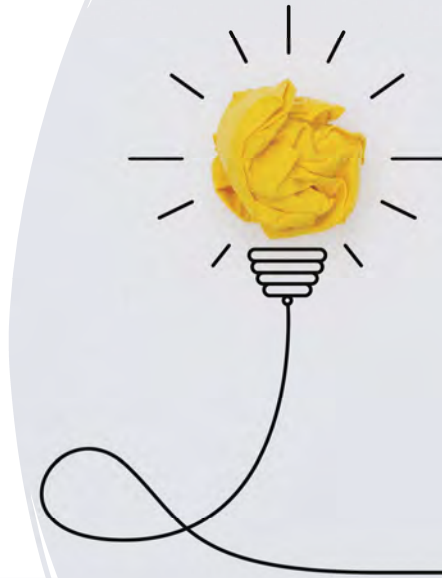
Stormwater may be captured and used onsite to reduce non-potable demand within the LVMWD service area. This concept involves small-scale stormwater capture for non-potable residential, commercial or institutional on-site use.

Metric	Details
Water Source	Stored rainwater used for outdoor irrigation
Potential Yield and Benefit to LVMWD Service Area	Assumed rebates result in maximum participation by homes and businesses. Assumed size of cisterns where no permits needed. Offset 470 AFY, 9,400 AF over 20 years.
Infrastructure Needed	Widespread installation of rain gutters, piping to cisterns, and cisterns.
Timeline to Implement	10 years using rebates.
Costs	\$50,034/AF (mid-term cost)

EL1

Discussion

Questions on Concept 1?



KJ Kennedy Jenks

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Concept 1. Rooftop Capture of Stormwater

Group Work

As a group, take 5 minutes to score Concept 1 using the provided handout.

Scores will be tallied for Concept 1



KJ Kennedy Jenks

LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 3

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Concept 2. Groundwater Banking Outside of Los Angeles and Ventura Counties



KJ Kennedy Jenks

LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 3

2A
Partnership with Irvine Ranch Water District

2B
Participation in Semitropic Water Bank

2C
Participation in Silvertip Water Reliability Program

33

Concept 2. Groundwater Banking Outside of Los Angeles and Ventura Counties



KJ Kennedy Jenks

LVMWD WATER SUPPLY DIVERSIFICATION STUDY

WORKSHOP 3

Background on Groundwater Banking:

Management Framework
Sources of Water for Recharge
Methods for Recharge
Methods for Recovery
Frequency Metropolitan Shortage
Methods for Moving Water to LVMWD

34

Concept 2A. Partnership with Irvine Ranch Water District



IRWD procures and stores water on behalf of LVMWD in one of their Central Valley groundwater banks. Exchange for SWP water OR recovered through extraction wells. Half of water purchased for LVMWD goes to IRWD.

Metric	Details
Water Source	Marketable SWP Water
Potential Yield and Benefit to LVMWD Service Area	3,900 AFY only in drought years
Infrastructure Needed	No new infrastructure, many agreements needed.
Timeline to Implement	3 years, with agreement/project benefit lasting 20 years
Costs*	\$7,628/AF near-term, \$3,653 mid-term, NA long-term

* Costs have been modified from the Stakeholder Draft Report

Concept 2B. Participation in Semitropic Water Bank



Semitropic Water Storage District operates a water bank in the California Central Valley. **The bank is fully subscribed**, LVMWD would have to buyout shares from an existing shareholder.

Metric	Details
Water Source	Marketable SWP Water
Potential Yield and Benefit to LVMWD Service Area	3,900 AFY only in drought years
Infrastructure Needed	No new infrastructure, many agreements needed
Timeline to Implement	3 years, with agreement/project benefit lasting 20 years
Costs*	\$9,927/AF near-term, \$3,768/AF mid-term, NA long term

* Costs have been modified from the Stakeholder Draft Report

Concept 2C. Participation in Silvertip Water Reliability Program

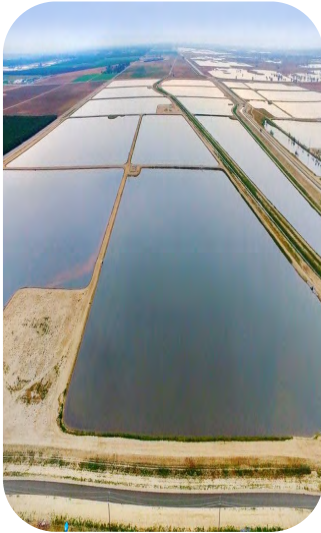


Photo: Rosedale-Rio Bravo Water Storage District.

Silvertip is a farming and sustainable water infrastructure company in the San Joaquin Valley with a water supply portfolio that includes entitlements, storage, and water conveyance. Water mix includes groundwater banks and surface water.

Metric	Details
Water Source	SWP Water, Long-Term Supplemental Water
Potential Yield and Benefit to LVMWD Service Area	3,900 AFY only in drought years
Infrastructure Needed	No new infrastructure, many agreements needed
Timeline to Implement	6 months to 1 year
Costs*	\$3,555/AF near-term, \$2,932/AF mid-term, \$2,991/AF long-term

37

EL1

Discussion

Questions on Concept 2?



38

Concept 2. Groundwater Banking Outside of Los Angeles and Ventura County

Group Work

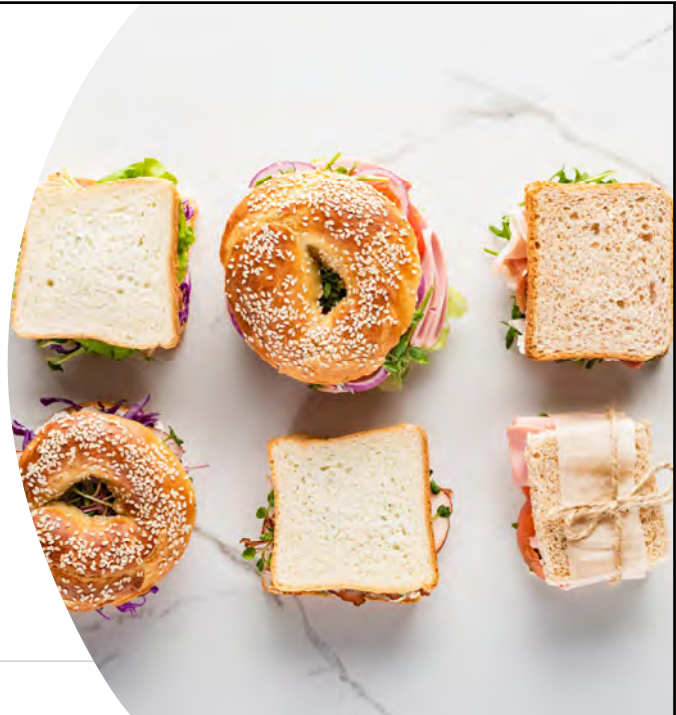
As a group, take 10 minutes to score Concept 2A and 2C using the provided handout.

Scores will be tallied for Concepts 2A and 2C



Lunch

Break to wrap by 12:20



Concept 3. Participation in Calleguas WRIST Study via Oxnard AWPf

A project identified in the WRIST study was expansion of the Oxnard AWPf for indirect potable reuse and groundwater recharge. LVMWD would receive water via exchange for SWP Water.

Metric	Details
Water Source	Advanced Treated Water, exchanged for SWP Water
Potential Yield and Benefit to LVMWD Service Area	3,900 AFY
Infrastructure Needed	Extensive expansion of the AWPf, new injection wells, new extraction wells, monitoring wells, piping to groundwater injection
Timeline to Implement	12 years, with agreement/project benefit lasting 30 years.
Costs*	NA near-term, \$22,549/AF mid-term, \$2,798/AF long-term

* Costs have been modified from the Stakeholder Draft Report

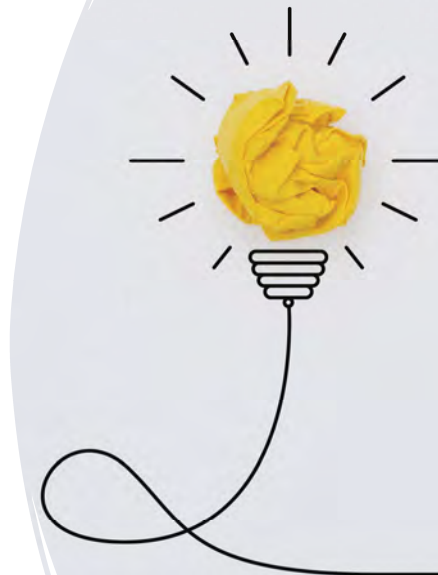


41

EL1

Discussion

Questions on Concept 3?



42

Concept 3. Participation in Calleguas WRIST Study via Oxnard AWP

Group Work

As a group, take 5 minutes to score Concept 3 using the provided handout.

Scores will be tallied for Concept 3



Concept 4. Participation in Brackish Water Treatment via United

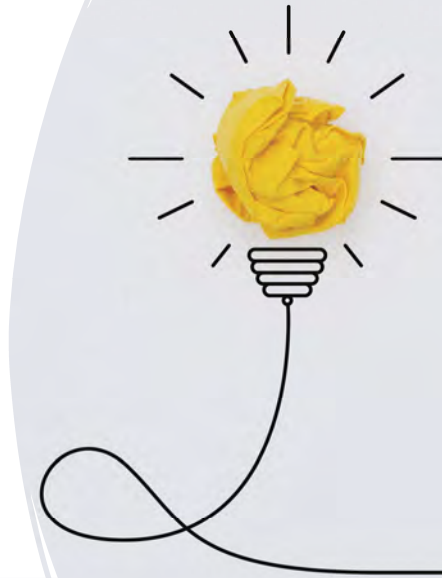
Pumping and use of saline impaired water from the Oxnard and Mugu aquifers of the Oxnard Plain. Water supplied to LVMWD via pipeline connection Mugu to Malibu and WWD29 interconnection.

Metric	Details
Water Source	Treated Brackish Groundwater Oxnard Plain Groundwater Basin
Potential Yield and Benefit to LVMWD Service Area	3,900 AFY
Infrastructure Needed	Treatment Plant, tanks, pump stations, discharge line, extraction wells, conveyance to LVMWD
Timeline to Implement	20 years, with agreement/project benefit lasting 20 years
Costs	NA near-term, \$14,030/AF mid-term, \$(340)/AF long-term



Discussion

Questions on Concept 4?



Concept 4. Participation in Brackish Water Treatment via United

Group Work

As a group, take 5 minutes to score Concept 4 using the provided handout.

Scores will be tallied for Concept 4



Stakeholder Scoring Results



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Time for a Survey

WSDS Workshop #3 Input Survey



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WSDS Workshop #3 Input Survey

Please respond to questions below. 5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree, 1-Strongly Disagree

When you submit this form, it will not automatically collect your details like name and email address unless you provide it yourself.

* Required

1. The study captures a wide range of potential water supply alternatives for developing a diversified water supply portfolio. *

12345

2. "On again off again" calls for conservation should be avoided - customers should use water efficiently at all times and adequate supply should be available regardless of whether there is a drought. The recommended portfolio should not include conservation. *

12345

3. Rooftop capture is not feasible from a cost standpoint for inclusion in a water supply portfolio but should be considered as part of a separate water savings program as an option for customers to reduce demand on the system / reduce their water bills. ?

12345

4. Metropolitan supply should be assumed to be equal to or less than 50% of total water supply during a drought/water shortage event. The recommended portfolio should not require more than 50% Metropolitan water during drought/water shortage. *

12345

5. The median rate increase scenario for future Metropolitan rates is the most appropriate rate to use in comparing portfolios. *

12345

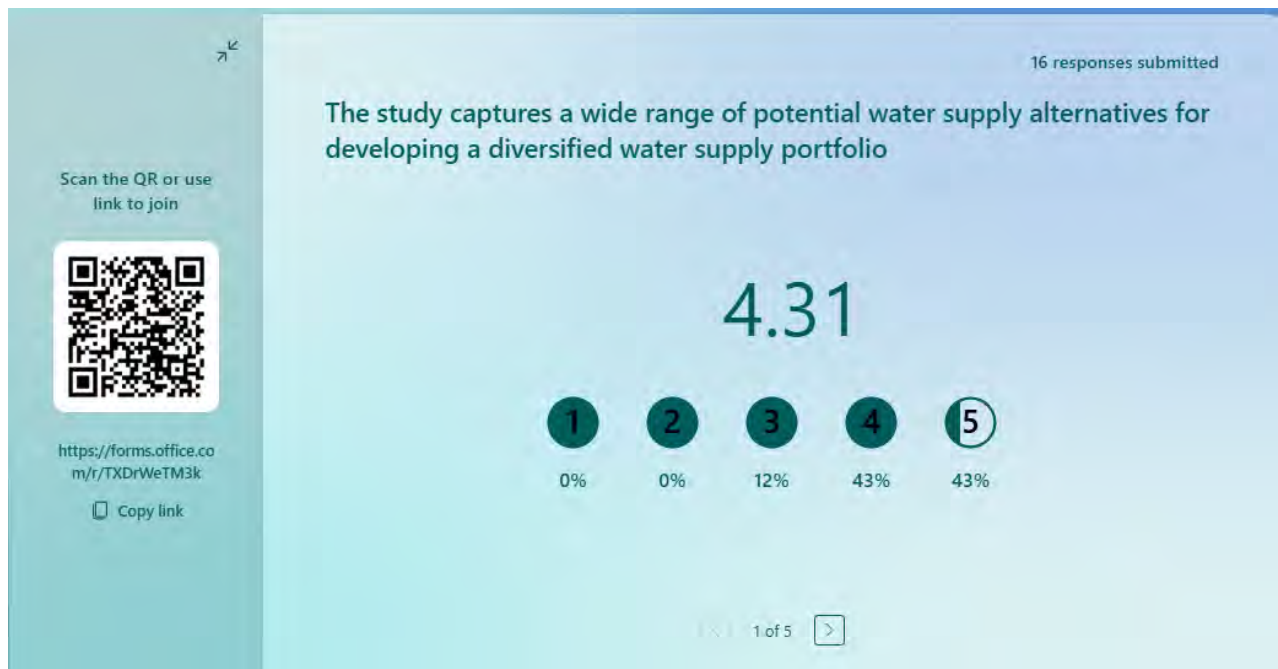
Submit

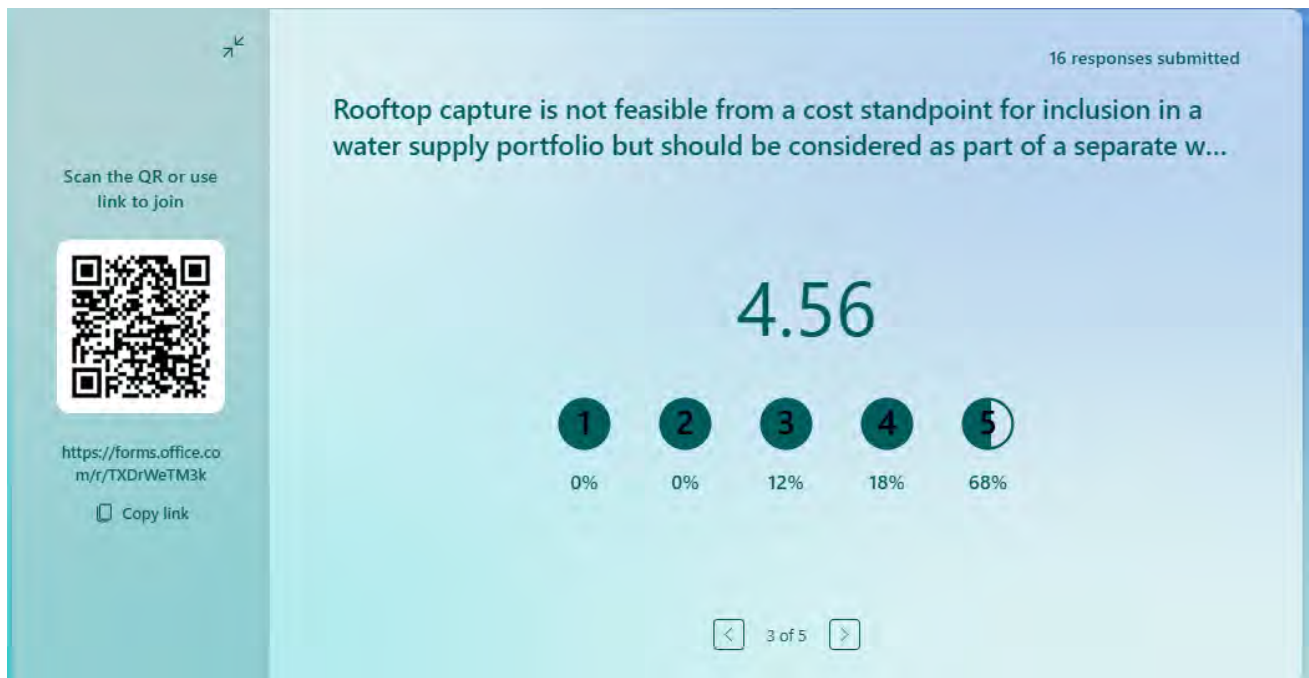
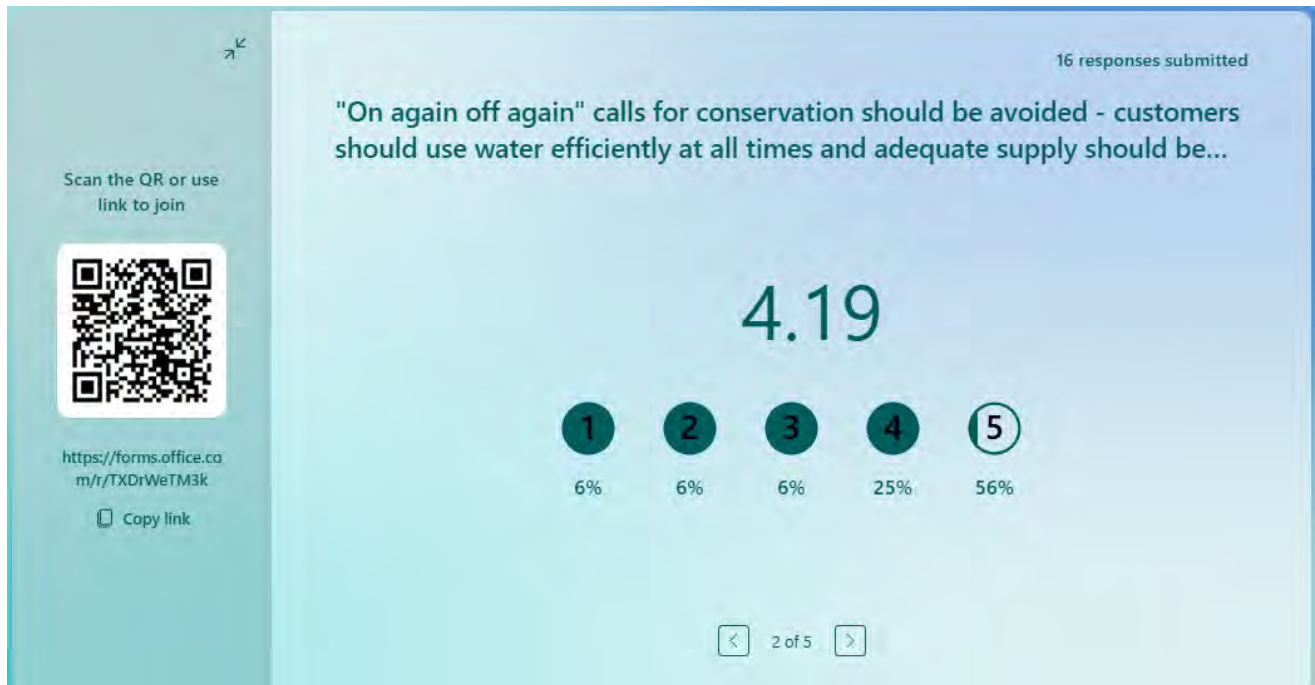
New poll(s) generated. Refresh

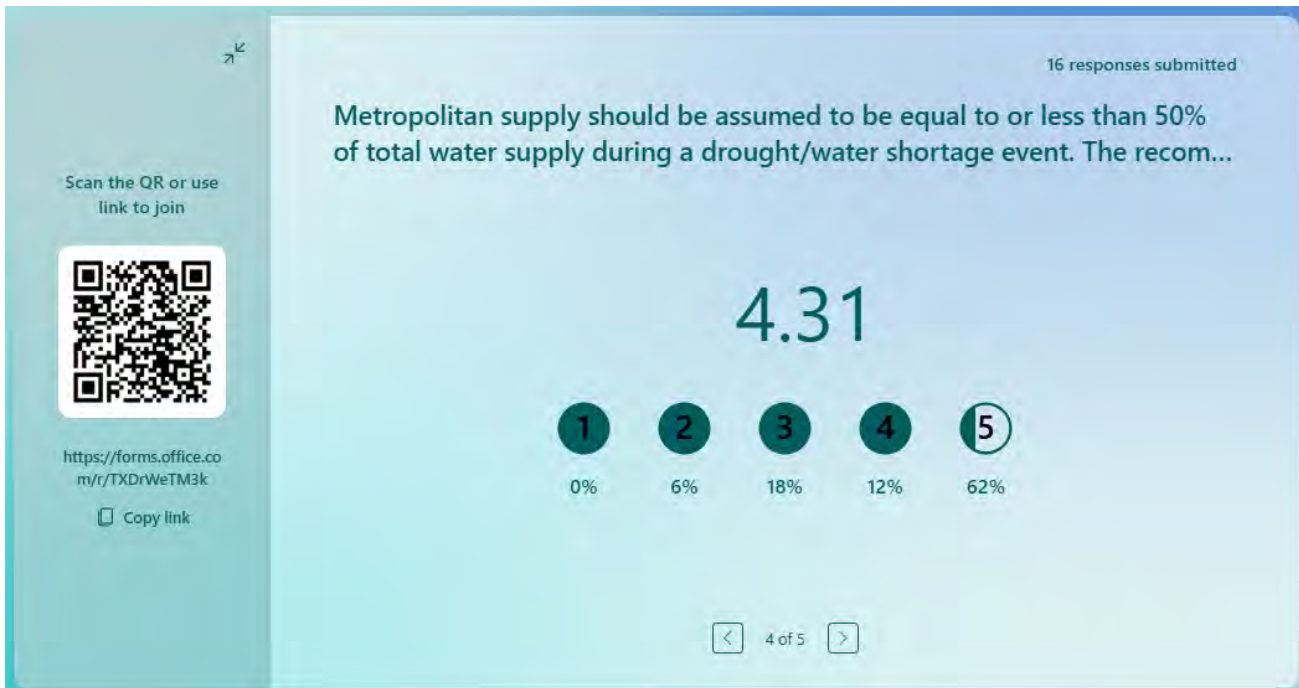
Previous slide

Next slide

49





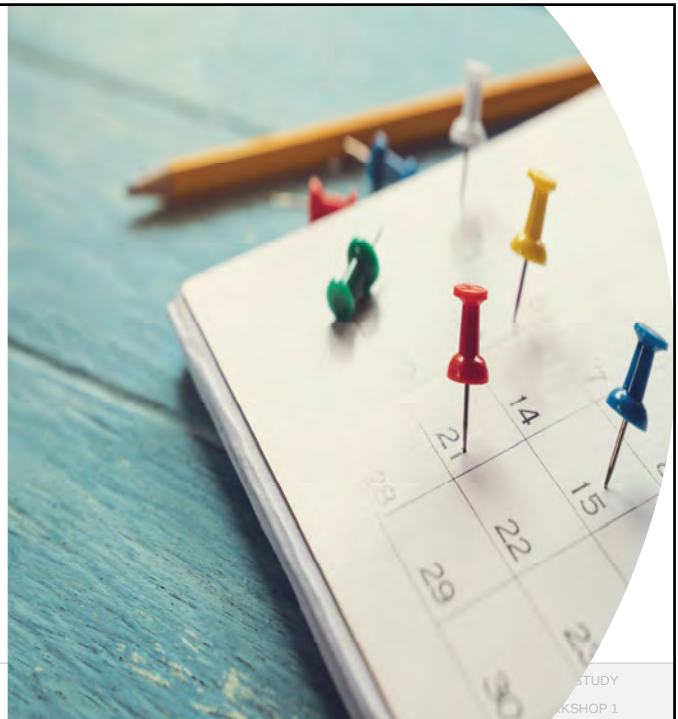


Q & A



51

Next Steps



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WATER SUPPLY DIVERSIFICATION STUDY

May 18, 2026; 1 PM – 3 PM

Stakeholder Workshop 4



1

Welcome and
Introductions



2

Today's Agenda

- Welcome and Introductions
- Recap/Refresher
- Review of Preliminary Recommended Portfolios
- Update to Project Scoring
- Adaptability and Plan Revisions
- Stakeholder Input/Comments on Draft

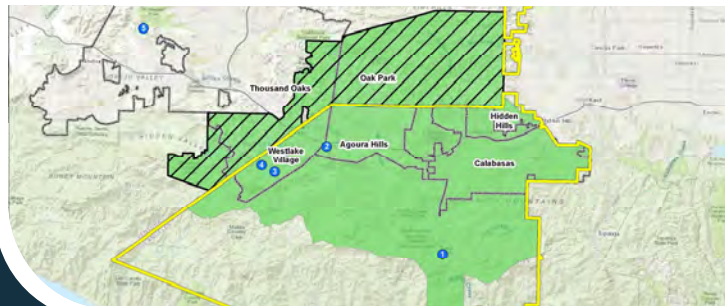
BE READY:
There will be interactive polls!

KJ Kennedy Jenks



3

Recap/Refresher



4

This study sets out to identify alternatives to diversify LVMWD's water supply portfolio for the purpose of providing a more reliable supply of water to customers in a cost effective and environmentally sensitive manner under a variety of water supply conditions.

Purpose of Study

The **goal of the study** is to answer the following questions:

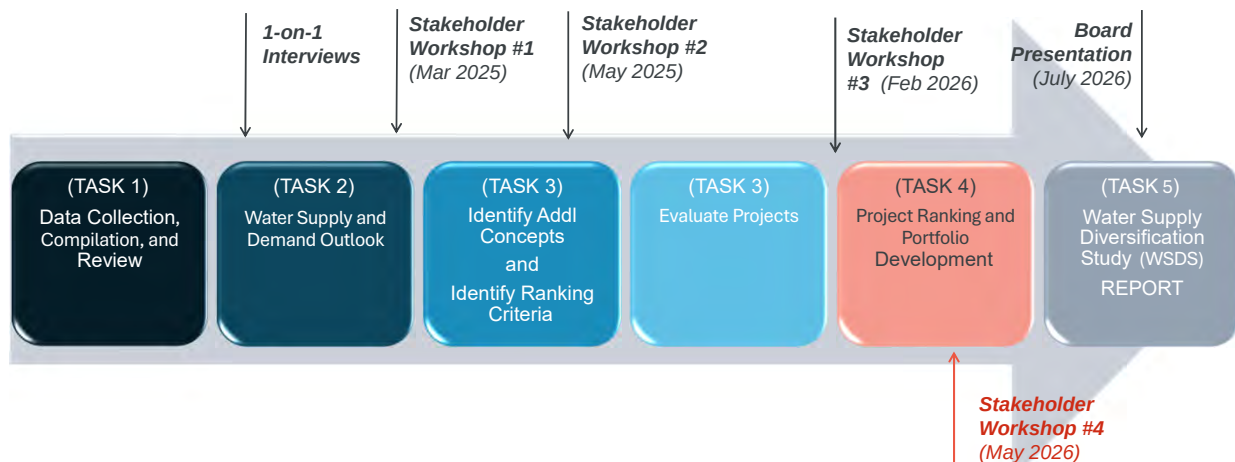
- ✓ What is the reliability of the current supply?
- ✓ To what degree should LVMWD rely on MWD versus local/non-MWD supply?
- ✓ To what extent are the proposed alternative supplies reliable?
- ✓ What are the realistic timelines for planning and implementing various alternative water supplies?
- ✓ How much will the optimal supply portfolio cost and what is the impact to the average customer's water bill?
- ✓ What is the optimal/most-feasible water supply portfolio, near-term and long-term?

Diversify supply

Avoid Mandatory Conservation

5

Where we are in the process



6

Focus of Workshops

Purpose of Workshop 4

Activities	Focus and Desired Outcomes
Stakeholder Workshop #1 (in-person and virtual)	- Introduce project goals and objectives - Input to water demand projections
1 on-1 Interviews (virtual)	- Present study goals and objectives; solicit input on screening criteria and weighting values - Vet a preliminary concept list - Research and network to gather information on related regional projects - Receive feedback on institutional, regulatory, and feasibility challenges
Stakeholder Workshop #2 (in-person)	- Review and facilitate discussion of water supply concepts - Identify and understand concepts with insurmountable obstacles - Develop a short-list (3 projects) of water supply concepts - Develop/Determine evaluation and ranking criteria
Stakeholder Workshop #3 (in-person)	- Walk through short-list of concepts and distribute fact sheets - Review screening and scoring of concepts - Facilitate discussion of portfolio development approach (if time allows)
Stakeholder Workshop #4 (virtual)	- Review refined report - Review portfolios - Take any final feedback

7

Assumptions Framing the Portfolios

Planning Period	- Near-Term 2030 - Mid-Term 2045 - Long-Term 2045
Anticipated Demands	16,000 to 17,000 AFY
Status Quo Portfolio	- Normal Year – Metropolitan water and Pure Water - Drought Year – 50% normal supply from Metropolitan, Pure Water, IRWD water, and Extreme Conservation. Available Metropolitan water assumed to increase with Stage 1 and 2 of Sepulveda Pass Improvements
Cost of Metropolitan Supplies and Services	Increases greater than the rate of inflation. Influences cost of status quo supplies, and concepts that use Metropolitan conveyance and treatment.
Other Planned Supplies	Though not evaluated in detail, other planned supplies are recognized in this study
Drought Occurrence	Approximately 3 times per decade and up to 5 times in any 20-year period

8

Costing relies on assumptions about how the cost of Metropolitan supplies and services will increase overtime.

Present Value (\$2024) Estimated Cost Scenarios for Metropolitan Water

Year	2030	2035	2040	2045	2050	2055	2060	2065
High Rate Scenario	1,879	2,398	3,061	3,907	4,986	6,364	8,122	10,366
Medium Rate Scenario	1,879	2,398	3,061	3,907	4,440	4,902	5,413	5,976
Low Rate Scenario	1,876	2,398	3,061	3,907	4,102	4,102	4,102	4,102
	Based on Metropolitan Estimates				Forecasted			

Status Quo Portfolio

Kennedy Jenks

LVMWD WATER SUPPLY DIVERSIFICATION STUDY
WORKSHOP 4

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Normal Year

2030 2045 2065

Drought Year

2030 2045 2065

■ Metropolitan ■ Pure Water ■ IRWD ■ Extreme Conservation

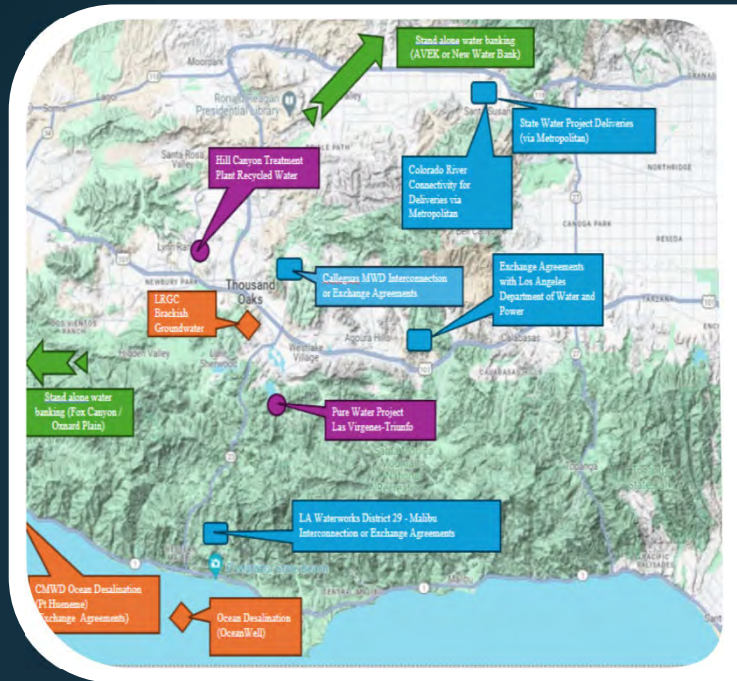
Status Quo Portfolio

Kennedy Jenks

LVMWD WATER SUPPLY DIVERSIFICATION STUDY
WORKSHOP 4

10

Preliminary Recommended Portfolios



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Concepts Evaluated in Report

1. Rooftop Capture of Stormwater
2. Groundwater Banking Outside of Los Angeles and Ventura Counties
 - A. Groundwater Banking Partnership Irvine Ranch Water District
 - B. Participation in Semitropic Water Bank
 - C. Participation in Silvertip Water Reliability Program
3. Participation in Calleguas WRIST Study via City of Oxnard AWPf
4. Participation in Brackish Water Treatment via United

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Concept 2. Groundwater Banking Outside of Los Angeles and Ventura Counties



2A
Partnership with Irvine Ranch Water District

2B
Participation in Semitropic Water Bank

2C
Participation in Silvertip Water Reliability Program

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Concept 2. Participation in Distant Groundwater Bank

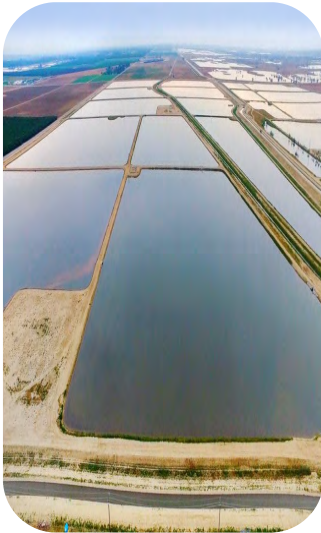
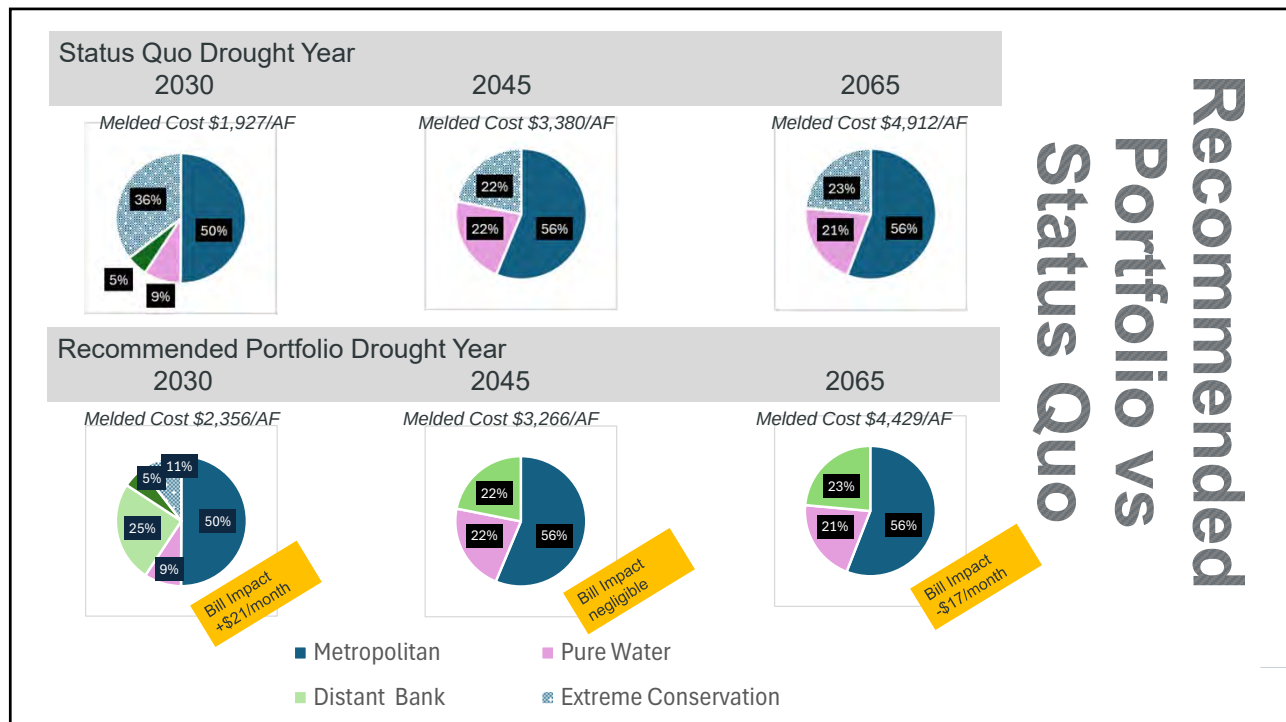


Photo: Rosedale-Rio Bravo Water Storage District.

Public and private options

Metric	Details
Water Source	SWP Water, Long-Term Supplemental Water
Potential Yield and Benefit to LVMWD Service Area	4,000 AFY only in drought years
Infrastructure Needed	No new infrastructure, many agreements needed
Timeline to Implement	6 months to 1 year
Costs*	\$2,356/AF near-term, \$3,266/AF mid-term, \$4,429/AF long-term

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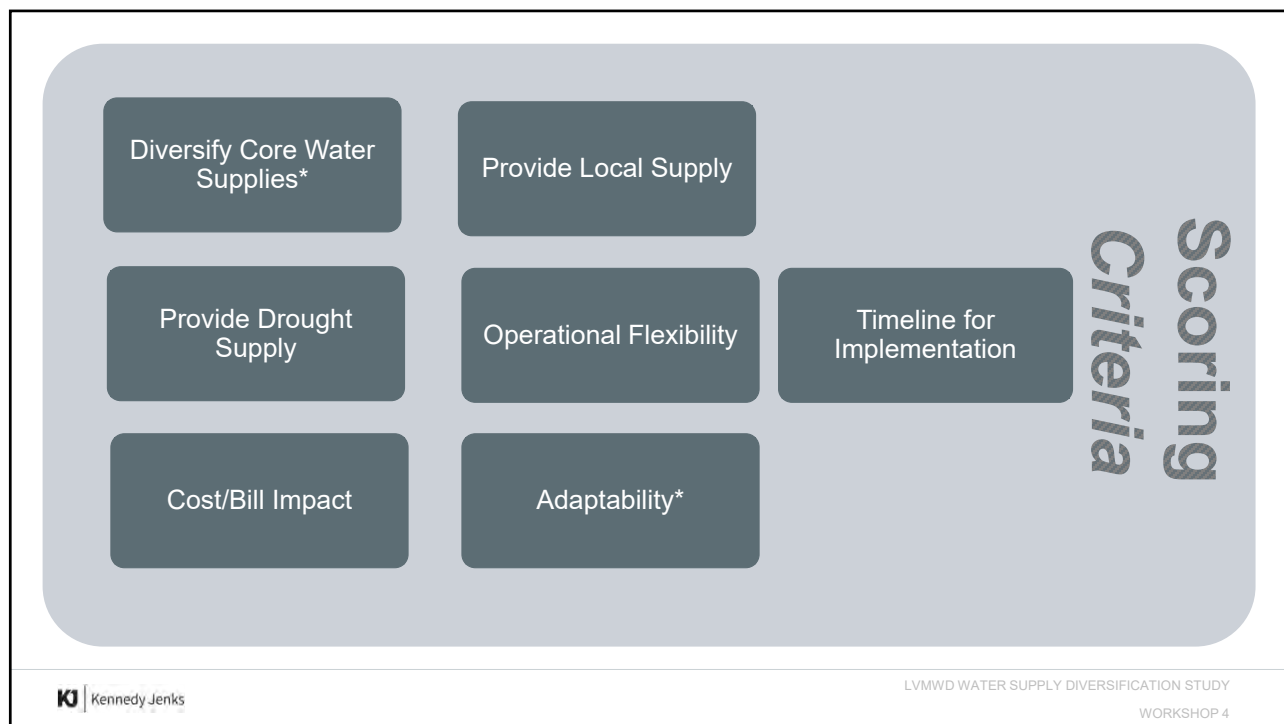
15

Wholesale Cost of Water (2024\$)	Tier 1 Rate	Monthly Use (HCF) vs. Monthly Bill				
		23	20	18	15	13
\$/AF	\$/HCF					
\$1,256	\$2.88	\$153.62	\$140.81	\$132.26	\$119.45	\$110.91
\$2,000	\$4.59	\$174.47	\$158.93	\$148.58	\$133.05	\$122.69
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\$6,500	\$14.92	\$373.44	\$331.96	\$304.30	\$262.81	\$235.16

Kennedy Jenks

LVMWD WATER SUPPLY DIVERSIFICATION STUDY
 WORKSHOP 4

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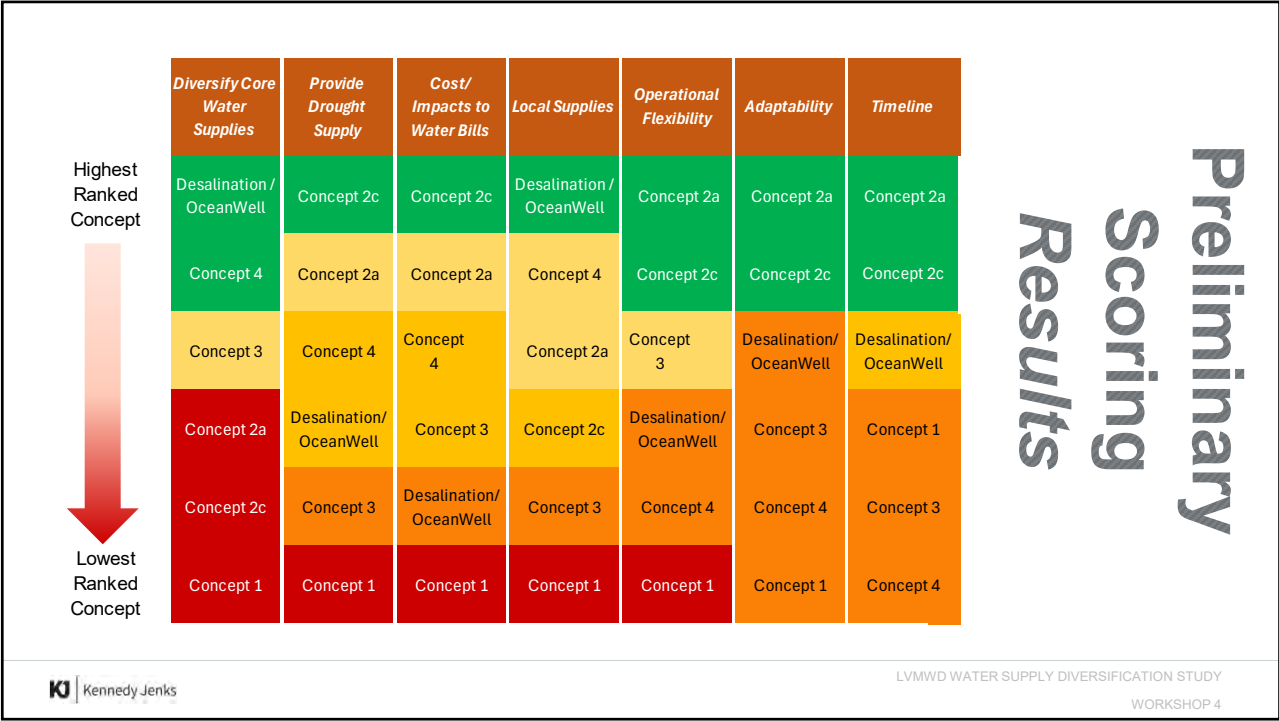


17

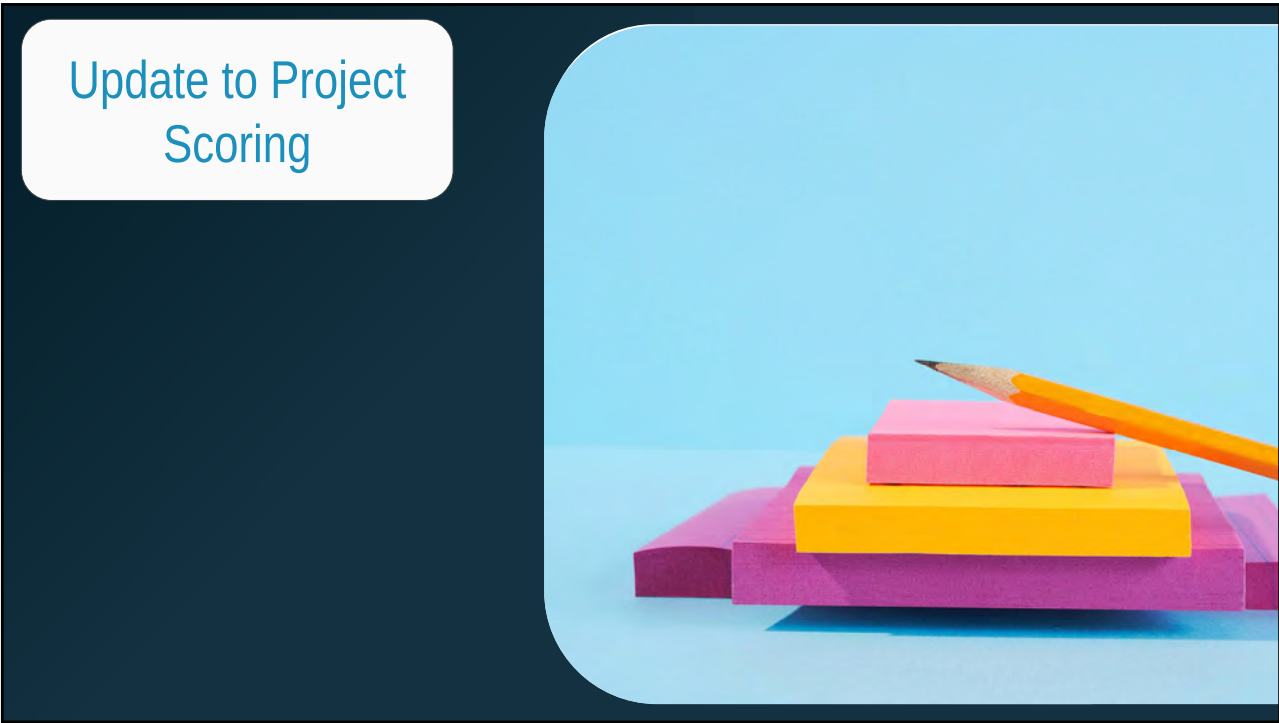
Primary Scoring		Scoring Approach
8	Clearly the concept that best meets the criteria	
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0	The concept does not address the criteria	
Secondary Scoring		
- 2	There are significant technical or institutional challenges related to achieving the concept's potential. Does not apply when primary score less than 4.	
- 1	There are technical or institutional challenges to achieving concept potential. Does not apply when primary score less than 4.	

Kennedy Jenks LVMWD WATER SUPPLY DIVERSIFICATION STUDY WORKSHOP 4

18

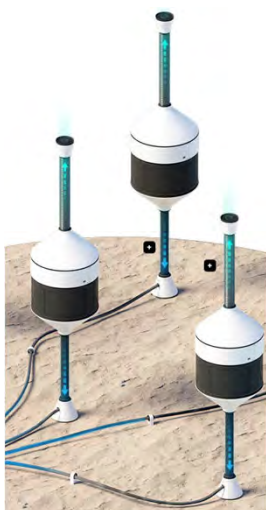


19



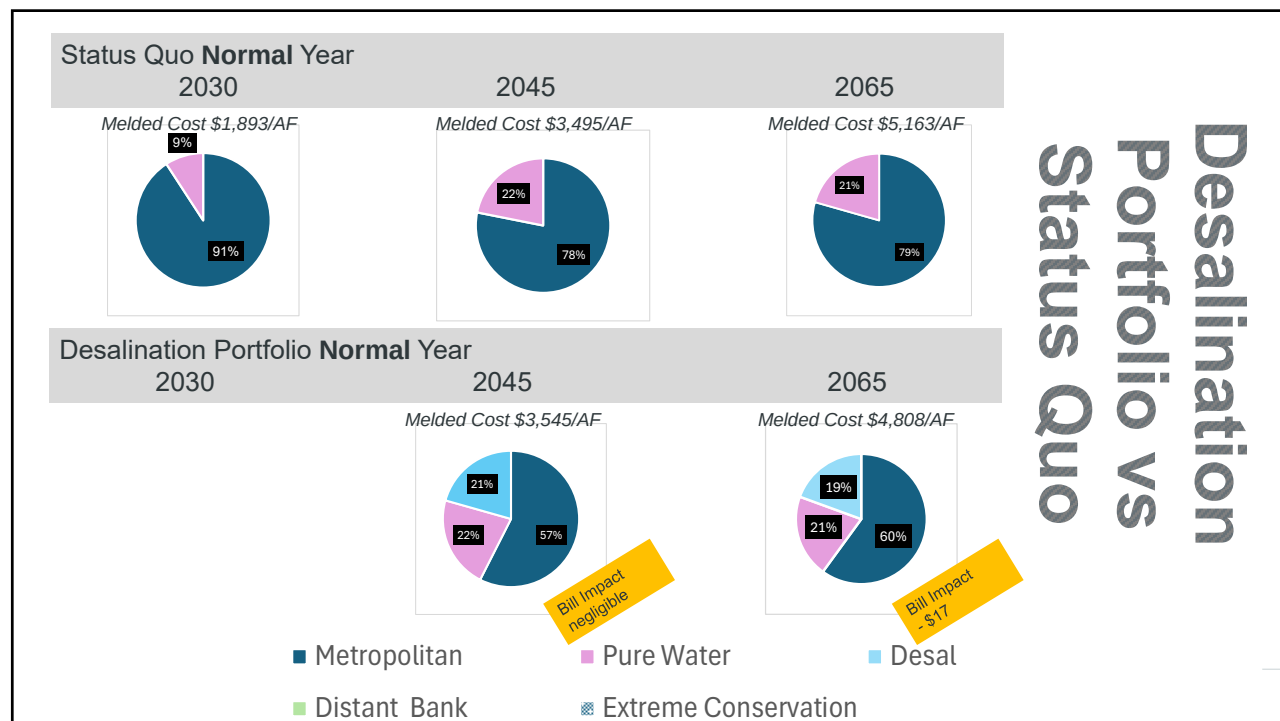
20

Desalination

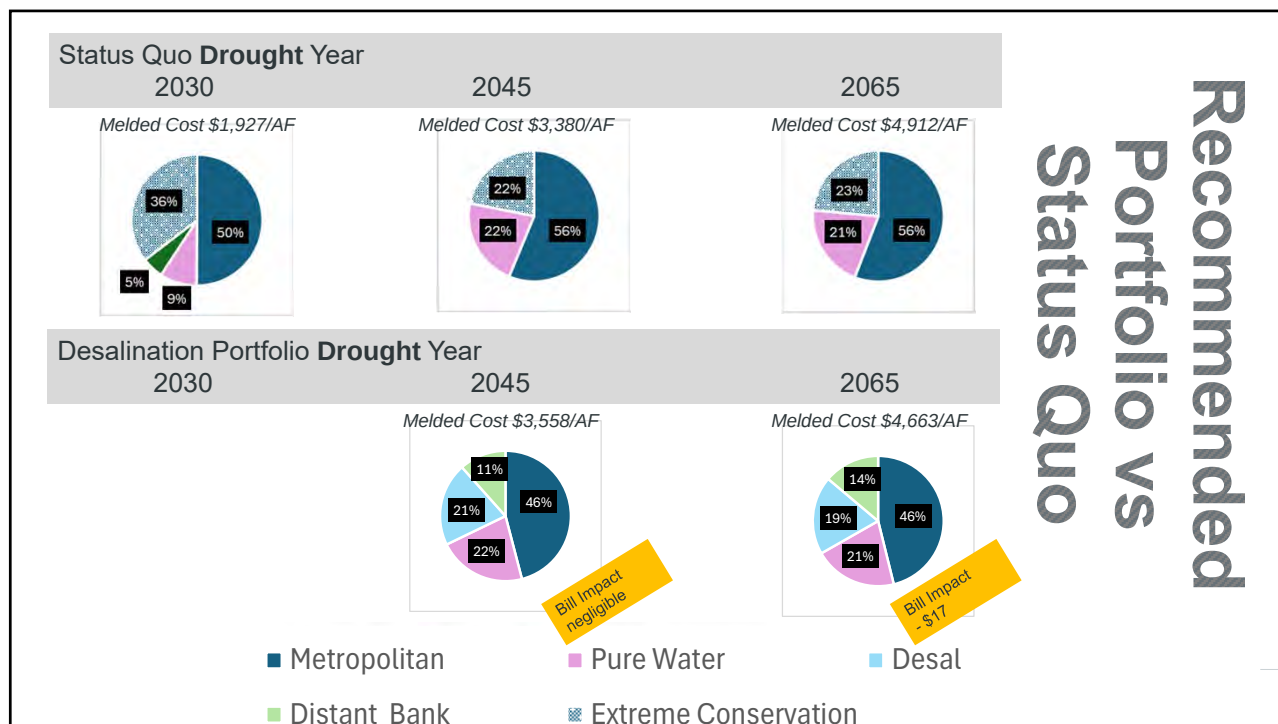


Metric	Details
Water Source	Ocean water
Potential Yield and Benefit to LVMWD Service Area	~3,300 AFY by 2035 (Phase 5)
Infrastructure Needed	Offshore subsea RO pods at ~400 m depth; landfall site near Malibu for disinfection and conditioning; 48-inch Malibu Canyon pipeline; two major pump stations (Malibu and Rancho); intermediate tank; West LA pump station and discharge pipeline; onshore chemical storage and treatment systems
Timeline to Implement	Phase 5: West Valley connection and full capacity 2034–2035
Costs	\$4,150/AF

21



22



23

Desalination

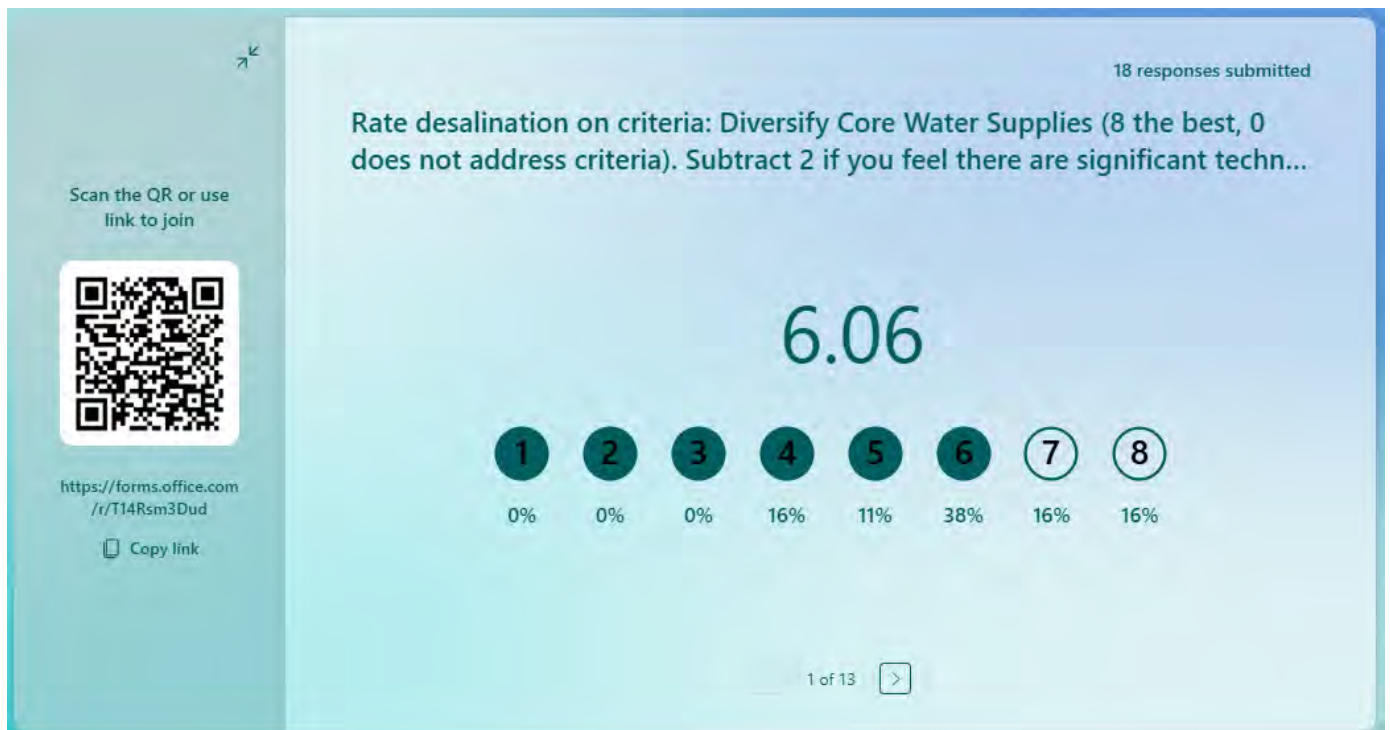
Scoring Planned Supplies - Desalination





LVMWD WATER SUPPLY DIVERSIFICATION STUDY
 WORKSHOP 4

24



25

Primary Scoring		Scoring Approach
8	Clearly the concept that best meets the criteria	
6	The concept addresses the criteria but is not the best performer	
4	The concept meets the intent of the criteria	
0	The concept does not address the criteria	
Secondary Scoring		
- 2	There are significant technical or institutional challenges related to achieving the concept's potential. Does not apply when primary score less than 4.	
- 1	There are technical or institutional challenges to achieving concept potential. Does not apply when primary score less than 4.	

KJ Kennedy Jenks

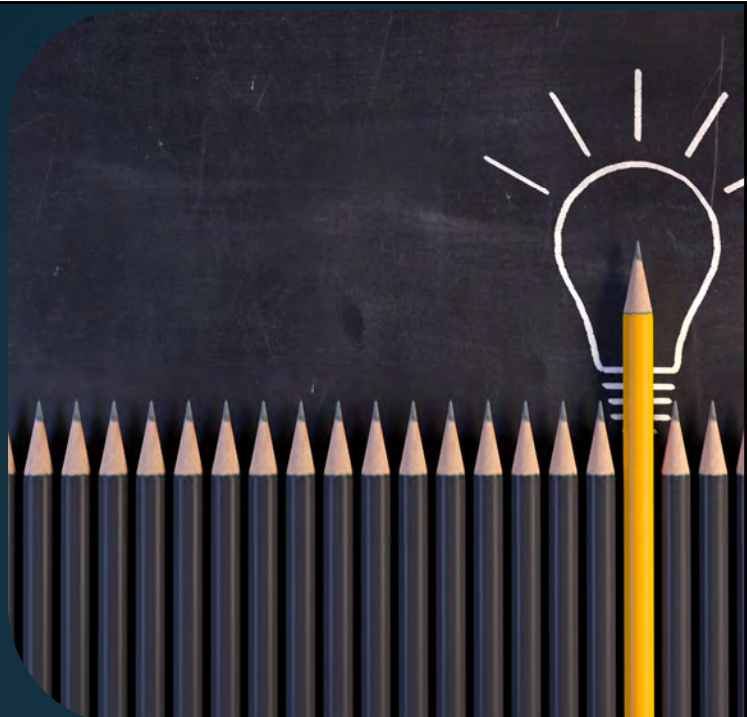
LVMWD WATER SUPPLY DIVERSIFICATION STUDY
WORKSHOP 4

26

	Diversify Core Water Supplies	Provide Drought Supply	Cost/Impacts to Water Bills	Local Supplies	Operational Flexibility	Adaptability	Timeline	Total Score
Concept 1. Rooftop Capture Stormwater	0	0	2	0	0	2	2	6
Concept 2a. Groundwater Banking Partnership IRWD	0	11	10	6	8	8	6	49
Concept 2c. Participation in Silvertip Reliability Program	0	13	12	6	8	8	6	53
Concept 3. Participate in WRIST Local Groundwater Banking	6	7	8	5	7	2	2	37
Concept 4. Participation in Expanded South Oxnard Plain Brackish Water Treatment	8	9	8	8	2	2	2	39
Desalination	8	9	7	10	2	2	4	42

27

Adaptability and Plan Revisions



28

Near-Term Actions (up to 2030)

- Update Study in 2030
- Distant groundwater banking
- Continue participation in WRIST Study
- Continue investigation of desalination
- Follow groundwater banking by LADWP

Mid-Term Actions (up to 2045)

- Update Study approximately every 5 years
- Re-evaluate distant groundwater banking
- Continue participation in WRIST Study
- Continue following opportunities for water banking Ventura and Los Angeles counties
- Follow groundwater banking by LADWP

Long-Term Actions (up to 2065)

- Evaluate reliability of the status quo
- Evaluate need for supplemental supplies
- Evaluate concepts not implemented

Recommendations

Kennedy Jenks

LVMWD WATER SUPPLY DIVERSIFICATION STUDY
 WORKSHOP 4

29

Stakeholder Input to Draft

30

We Want Your Feedback



 Kennedy Jenks

LVMWD WATER SUPPLY DIVERSIFICATION STUDY
WORKSHOP 4

31

Scan the QR or use link to join



<https://forms.office.com/r/Wafl412ByB>
Copy link

The Report

16 responses submitted

Very Clear

Mostly Clear

Neutral

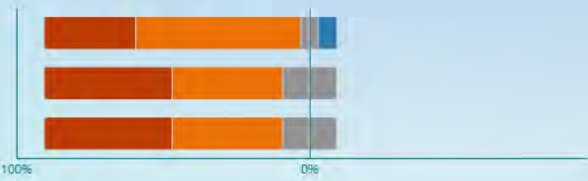
Somewhat Unclear

Very Unclear

How clear is the report?

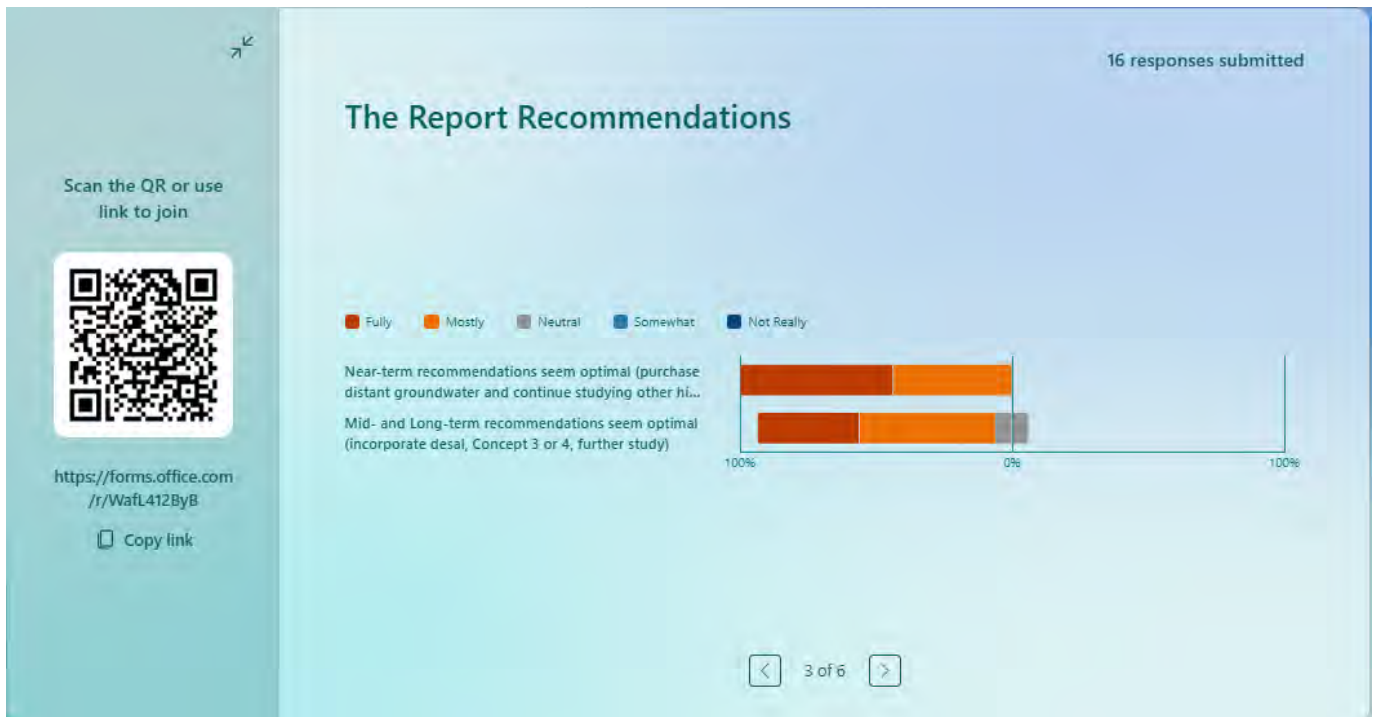
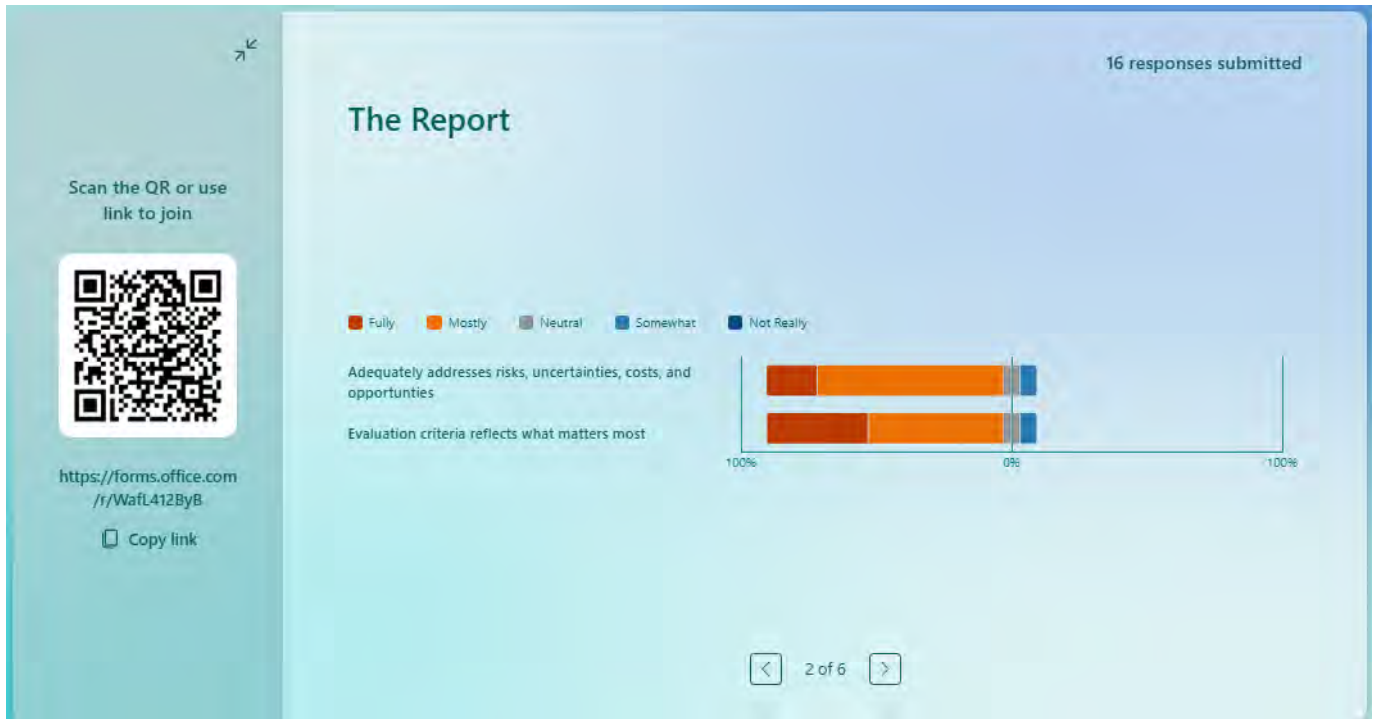
Key findings and recommendations are easy to follow

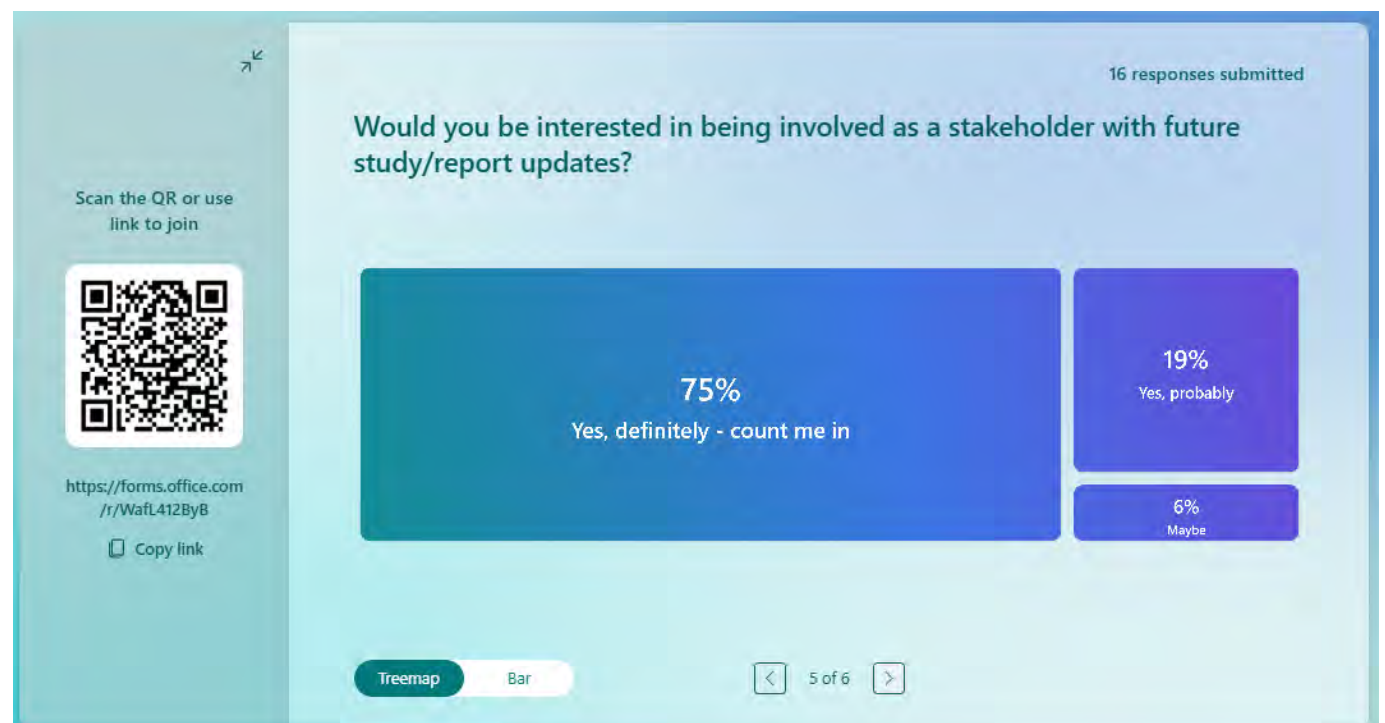
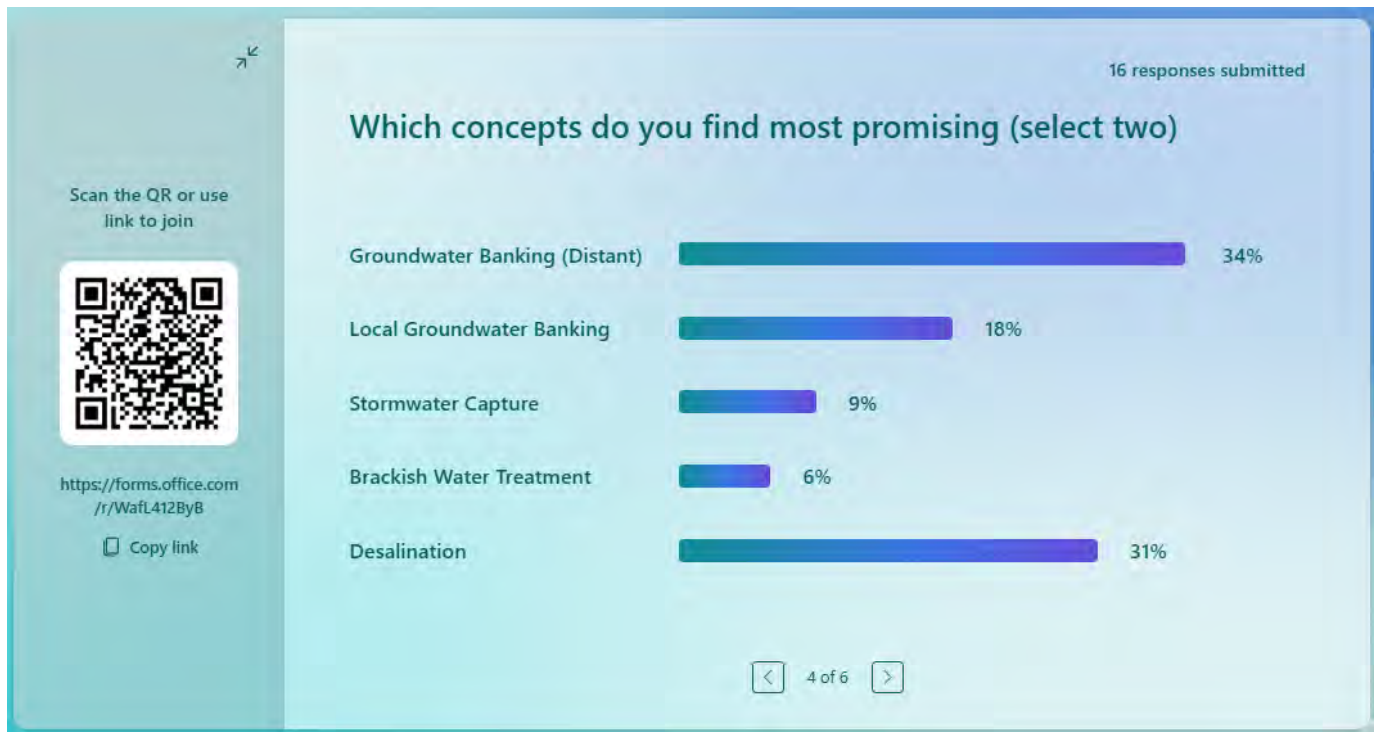
Do you agree with the assumptions (drought frequency, MWD rate forecast)



1 of 6

32







16 responses submitted

What is one change that would most improve this study/report?

Scan the QR or use
link to join



<https://forms.office.com/r/WafL412By8>

Copy link

assumptions are accurate

groundwater banking

desal and conveyance

stakeholders costs for desal rep from another district

Irvine ranch

MWD water

cons of desal

similar challenges

desal hard

ocean desal

MWD talk

assumptions gift card
discussed prior

infrastructure plans questions were hard

Wordcloud

All responses



6 of 6

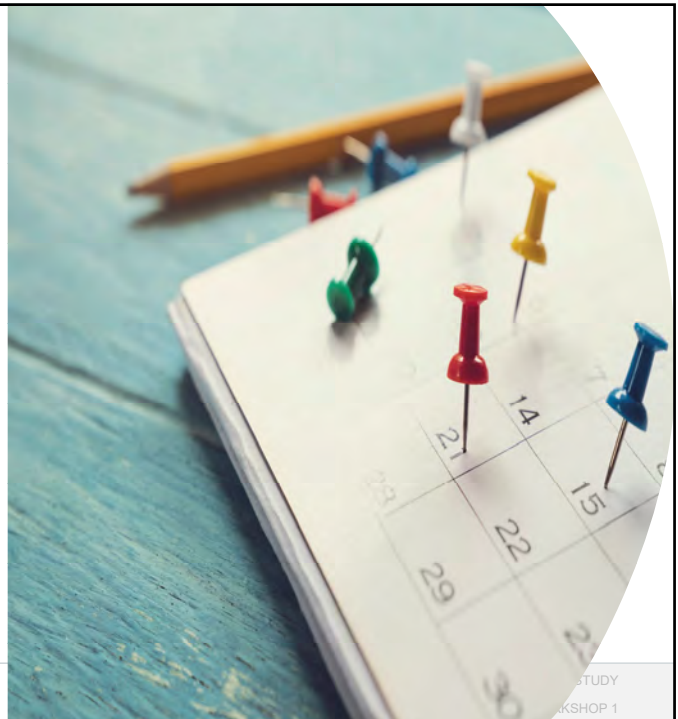


Q & A



33

Next Steps



34

Discussion

Wholesale Cost of Water (2024\$)	Tier 1 Rate	Monthly Use (HCF) vs. Monthly Bill				
\$/AF	\$/HCF	23	20	18	15	13
\$1,256	\$2.88	\$153.62	\$140.81	\$132.26	\$119.45	\$110.91
\$2,000	\$4.59	\$174.47	\$158.93	\$148.58	\$133.05	\$122.69
\$2,500	\$5.74	\$196.62	\$178.20	\$165.91	\$147.49	\$135.21
\$3,000	\$6.89	\$218.77	\$197.46	\$183.25	\$161.94	\$147.73
\$3,500	\$8.03	\$240.73	\$216.55	\$200.44	\$176.26	\$160.14
\$4,000	\$9.18	\$262.88	\$235.81	\$217.77	\$190.71	\$172.66
\$4,500	\$10.33	\$285.03	\$255.08	\$235.11	\$205.15	\$185.18
\$5,000	\$11.48	\$307.18	\$274.34	\$252.44	\$219.60	\$197.70
\$5,500	\$12.63	\$329.33	\$293.60	\$269.78	\$234.05	\$210.22
\$6,000	\$13.77	\$351.29	\$312.70	\$286.96	\$248.37	\$222.64
\$6,500	\$14.92	\$373.44	\$331.96	\$304.30	\$262.81	\$235.16



DATE: July 21, 2026
TO: Board of Directors
FROM: General Manager

SUBJECT: Internal Audit Program: Results of Regulatory Compliance Audit and Approval of Fiscal Year 2026-2027 Internal Audit Program

SUMMARY:

Maintaining and establishing proper internal controls is an essential element of District operations. These controls are put into place to safeguard the District's assets, ensure appropriate separation of duties and reduce the risk of fraud. The District has comprehensive policies and procedures that cover a wide range of topics from human capital management, financial management, purchasing, investing and debt management.

On March 21, 2023, the Board was presented with the results of an enterprise-wide risk assessment. During Fiscal Year 2023-24, internal audits were completed on cyber security and information technology vulnerabilities, and non-public works contract management and purchasing. During Fiscal Year 2024-25, internal audits were completed on business and disaster recovery and utility billing. Fiscal Year 2025-26 internal audits included contract management and purchasing and regulatory compliance. This report presents the results of the Regulatory Compliance Audit and proposes the next audit for Fiscal Year 2026-27 on human resources in the amount of \$65,000.

RECOMMENDATION(S):

Receive and file the Regulatory Compliance Audit and authorize an amendment to the professional services agreement with Eide Bailly, in the amount of \$65,000, to complete a Human Resources Internal Control Audit.

FISCAL IMPACT:

Yes

FINANCIAL IMPACT:

This action will increase the contract with Eide Bailly by \$65,000.

DISCUSSION:

On September 20, 2022, the Board awarded a contract for internal audit services to Eide Bailly. The first step of the internal audit process was to complete an enterprise-wide risk assessment that was provided to the Board on March 21, 2023. On August 5, 2025, the Board approved the Fiscal Year 2025-26 Internal Audit Program that included audits on contract management and purchasing and regulatory compliance. The first audit related to contract management was presented to the Board on January 6, 2026. The Regulatory Compliance Audit is now complete, and the results will be presented to the Board.

Regulatory Compliance Audit:

The District is subject to a Board range of federal, state, and local regulatory requirements for most of its operations. These regulations ensure the District is in compliance with drinking water, sanitation, and recycled water standards as well as other requirements from agencies such as the South Coast Air Quality Management District.

Eide Bailly LLP reviewed the policies, procedures, and management practices of the Engineering & Facilities and Water Operations Departments. The attached report summarizes the audit findings and presents staff's responses and plan to implement the identified improvements.

Fiscal Year 2026-27 Audit Program:

Fiscal Year 2026-27 represents the fifth and final year of the current internal audit engagement with Eide Bailly. During Fiscal Year 2026-27, one audit will be performed related to human resources, and the engagement will conclude with an independent review of staff's implementation of improvements related to past audit observations and findings.

Sound human resources practices are critical to the proper management of the District's human capital, the people that ensure the District operates effectively and efficiently all day, every day. Human resources controls ensure that the District complies with laws, regulations, and internal processes. The audit will include review the effectiveness of the District's hiring practices, workforce planning, vacancy management, and position controls. Details of the proposed audit, in the amount of \$65,000, are attached.

GOALS:

Ensure Effective Utilization of the Public's Assets and Money

Prepared by: Donald Patterson, Assistant General Manager

ATTACHMENTS:

[Regulatory Compliance Audit - Final Report](#)

[Regulatory Compliance Audit - Board Presentation](#)

[Proposal for Human Resources Internal Controls Audit](#)

Las Virgenes Municipal Water District

June 2026

REGULATORY COMPLIANCE REVIEW

Submitted By:

Eide Bailly LLP



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Executive Summary

The Las Virgenes Municipal Water District (LVMWD) is subject to a broad range of federal, state, and regional regulatory reporting requirements that support public health, environmental protection, and continued operational compliance. This review focused on the Engineering & Facilities and Water Operations Departments, which are responsible for preparing, reviewing, and submitting a significant portion of the District's operational regulatory reports. The objective of the engagement was to assess processes, procedures, and internal controls over regulatory compliance activities to determine whether reporting is complete, accurate, and timely, while also considering continuity, responsibility for regulatory functions, and management's approach to new and emerging requirements.

To achieve this objective, we performed a process-focused review that included walkthroughs, inquiry, documentation review, and targeted testing of ten regulatory reporting areas. Our procedures were designed to understand how reporting obligations are identified, tracked, assigned, prepared, reviewed, submitted, and retained. We also evaluated how departments monitor regulatory changes, maintain supporting documentation, and address continuity if key personnel are unavailable. Based on our procedures, across the reports reviewed, testing indicated that core regulatory reporting activities are functioning and include designated ownership, recurring reminder communications, report preparation procedures, supporting documentation, and internal review prior to submission.

LVMWD's current compliance framework relies on a combination of spreadsheets, manual calendars, recurring monthly reminder emails, shared files, and department-specific practices to manage reporting obligations. These tools and practices support monitoring deadlines and completing filings; however, they are manual, vary by department based on reporting requirements and format, and rely heavily on staff knowledge and consistent execution. Our procedures also indicated that supporting documentation is often retained within email correspondence, shared drives, laboratory files, or department-specific folders rather than maintained within a centralized and uniformly structured process allowing access across departments and personnel responsible for reporting activities. As a result, visibility, documentation practices, and retrieval of support may vary across reporting areas and departments.

The results indicate that LVMWD has effective practices in place to support report preparation and submission, while opportunities exist to improve consistency, clarity, and sustainability as reporting requirements continue to expand. Opportunities were identified to improve the report filing process through centralized management, standardize regulatory reporting tracking and related reminder processes, strengthen continuity planning, and improve shared access to retained submissions and supporting documentation. These observations are intended to enhance process clarity, coordination, and long-term resilience, and are not intended to indicate control failures.

Background Information

Las Virgenes Municipal Water District (LVMWD) is subject to a broad range of federal, state, and regional regulatory requirements. These requirements govern a wide range of operational activities, including water production, treatment, distribution, recycled water, wastewater operations, and related engineering and facilities functions. Regulatory compliance is essential to protecting public health and the environment and to maintaining the District's authority to operate its facilities and programs.

Responsibility for regulatory compliance activities is distributed across multiple departments within the District. The Engineering & Facilities and Water Operations Departments are responsible for preparing, reviewing, and submitting a significant portion of the District's operational regulatory reports. These departments support compliance with recurring reporting requirements such as monthly, quarterly, and annual submissions, as well as event-driven or conditional reports that are triggered by specific operational occurrences or regulatory thresholds.

Departments currently track regulatory reporting obligations using a combination of spreadsheets, manual calendars, reminder emails, and recurring monthly reporting communications. In particular, recurring monthly reporting emails are used by management to confirm completion status, coordinate responsibilities, and provide visibility over required submissions. Calendar notifications and additional follow-up communications are also used to monitor deadlines and initiate report preparation activities.

Walkthroughs conducted as part of this review indicated that regulatory reports are reviewed internally prior to submission to external agencies. Review practices vary by report and department but typically involve supervisory or management-level review to assess reasonableness, completeness, and consistency with applicable regulatory requirements before submittal. Supporting documentation for regulatory filings is primarily retained through email correspondence, shared files, or department-specific systems, depending on the reporting requirement.

District personnel described several methods used to remain informed of regulatory changes and emerging compliance requirements. These methods include direct communication and guidance from regulatory agencies, coordination with external consultants, use of professional subscriptions and industry resources, and participation in training or industry forums. Responsibility for monitoring regulatory updates and assessing their applicability rests with departmental management and designated subject-matter staff.

During walkthrough discussions, District personnel engaged in cross-functional dialogue to clarify and confirm regulatory reporting responsibilities, practices, and interpretations. These discussions helped departments to align on expectations and reinforce a shared understanding of reporting requirements across Engineering & Facilities and Water Operations.

In addition, the District is implementing a cloud-based solution designed to support regulatory compliance programs through more centralized tracking, improved documentation, and real-time field data capabilities.¹

Objective & Scope

The Objective of the engagement was to ensure compliance with relevant regulations and standards within the Engineering & Facilities and Water Operations departments of LVMWD. The audit assessed Districtwide processes, procedures, and internal controls over regulatory compliance requirements to ensure regulatory reporting is complete, accurate, and timely. Additionally, the audit evaluated whether personnel responsible for regulatory functions are meeting expectations and effectively fulfilling their responsibilities while maintaining continuity over operations. Lastly, the audit assessed management's consideration of new regulations, means of implementation, and future impacts to the District.

The Scope of this review focused on regulatory compliance operations from June 1, 2025 – April 30, 2026. This engagement was performed under the Statements on Standards for Consulting Services issued by the American Institute of Certified Public Accountants (AICPA). We did not provide audit, review, compilation, or financial statement preparation services to any historical or prospective financial information or provide attestation services under the AICPA Statements on Standards for Attestation Engagements and assume no responsibility for any such information.

Methodology

To achieve the objectives of this review, we performed a process-focused assessment of LVMWD's regulatory compliance activities within the Engineering & Facilities and Water Operations Departments. Our approach emphasized understanding how regulatory requirements are identified, tracked, prepared, reviewed, submitted, and retained.

¹ The District is currently implementing SwiftComply to centralize regulatory reporting and support the tracking of related requirements. Implementation is expected to be completed by December 31, 2026.

We conducted discussions and walkthroughs with management and staff from Engineering & Facilities and Water Operations, including Water Reclamation and Water Systems, to understand departmental roles and responsibilities for regulatory compliance, internal review practices, methods for tracking reporting deadlines, and areas where responsibilities are shared or coordinated across functions.

We documented end-to-end regulatory reporting workflows for reports within scope, including how reporting obligations are triggered, assigned, prepared, reviewed, submitted to regulators, and retained. As part of this effort, we reviewed available desk-level documentation, tracking spreadsheets, monthly reporting emails, and other tools used to monitor regulatory requirements. We also assessed the extent to which departments rely on manual calendars, reminder emails, and staff follow-ups to manage recurring and event-driven reporting obligations.

Our procedures include evaluating how regulatory reports are reviewed prior to submission and how responsibility for review is assigned. Walkthroughs confirmed that reports undergo internal review, although review practices, documentation retention, and evidence of approval vary by department and report type. We also assessed how departments stay informed of regulatory changes and emerging requirements, including reliance on communications from regulators, external consultants, professional subscriptions, and industry resources.

Finally, we obtained a district listing of 63 reports which summarized the associated agency, interval of submission, report description, next due date, and method of submission. From this list we selected ten (10) reports which represented 16% of total reports. This evaluation focused on the processes used to prepare and substantiate reports, collect, and verify source data, conduct internal reviews and approval, complete submissions, maintain supporting documentation, and maintain continuity if key personnel are unavailable. The purpose of this evaluation was to evaluate the consistency, completeness, and sustainability of current regulatory reporting practices across departments. Based on these procedures, we identified opportunities to improve consistency, documentation, and long-term sustainability while continuing to support timely and accurate regulatory reporting across the District.

Results and Conclusion

Based on our review, including walkthroughs, documentation review, and targeted testing of ten regulatory reporting areas, LVMWD regulatory reporting processes include key activities intended to support timely and complete submissions. These activities include established departmental ownership, recurring reminder communications, report preparation procedures, supporting documentation, and internal review performed prior to submission. Collectively, these practices indicate that core regulatory reporting processes are functioning and are designed to support ongoing regulatory compliance.

We identified opportunities to enhance consistency, efficiency, clarity, and sustainability in how LVMWD tracks, monitors, and coordinates regulatory reporting activities. These observations include enhancing centralized visibility over reporting obligations, further standardizing the regulatory reporting tracker and its alignment with reminder processes, formalizing quality control, and evidence of review, strengthening continuity planning and shared access to retained submissions, and supporting documentation.

The observations that follow are intended to support process clarity, sustainability, and cross-departmental coordination. They are not intended to indicate control failures. Rather, they highlight areas where additional structure or standardization may further strengthen LVMWD's regulatory reporting practices. The observations below incorporate themes identified across multiple reporting areas, including documentation, exception handling, regulatory tracking, and future reporting readiness.

OBSERVATION #1 – Centralized Visibility of Regulatory Reporting Obligations

Regulatory reporting responsibilities are distributed across Water, Engineering, and Facilities, with each department managing report preparation, review, and submission for its respective functions. Testing of the 10 selected reports indicated that this decentralized structure supports report preparation across recurring monthly, quarterly, and annual reports, as well as event-driven, inactive, and future reporting obligations. However, the District does not currently maintain a centralized management view reporting obligations across departments, which limits enterprise-level oversight. A centralized view would help management to confirm the completeness of reporting obligations, improve transparency across departments, and support timely, consistent responses to regulatory inquiries.

Walkthrough discussions identified inconsistent treatment of certain reporting categories, including inactive historical reports (i.e., Compliance Progress Reports), future regulatory requirements (i.e., Advanced Treatment Monitoring Reports), and inspection-based programs (e.g., cross-connection testing). These differences reduce comparability across departments and may limit management's ability to interpret reporting status, confirm completeness, or provide a unified view of obligations in response to regulatory or oversight inquiries.

Without a consolidated oversight view, management's ability to quickly confirm completeness, identify cross-department dependencies, distinguish current obligations from inactive or future requirements, and respond efficiently to regulatory inquiries or changes in responsibility may be reduced. While reporting ownership resides within individual departments, a centralized, management-level view of obligations would support consistent oversight and coordination across functions. This is particularly relevant given the range of reporting types addressed and the involvement of multiple departments, external laboratories, consultants, and agency inputs in the preparation of certain reports.

Recommendation

Establish a centralized, read-only oversight view that enables executive management to monitor the District's full regulatory reporting population across departments, including ownership, due dates, report type, and status. This will support confirmation of reporting completeness, consistent interpretation of reporting status, identification of cross-department dependencies, and address the current lack of a consolidated view and variation in how reporting obligations are classified and tracked.

Management Response:

Water Operations and Engineering and Facilities staff will work with Information Systems staff to evaluate centralized reporting opportunities and review potential cost impacts with the goal of incorporating into proposed Fiscal Year 2027-28 budget and/or Fiscal Years 2028-2030 budget as necessary and aligned with District priorities.

OBSERVATION #2 – Reporting Tracker Standardization and Process Alignment

A regulatory reporting tracker, initially in development by management and further refined during audit, provides a strong starting point for consolidating reporting obligations across departments.

However, based on walkthrough discussions and testing results, the tracker is not yet sufficiently standardized to consistently function as the District's single and primary source for regulatory reporting obligations. Current limitations include inconsistent naming/reference conventions and incomplete fields, which limit the ability to aggregate and interpret reporting obligations consistently across departments. In addition, there is limited distinction between active, inactive, conditional, and future reporting requirements, reducing clarity over the status and scope of the District's reporting universe.

Walkthroughs and testing indicated that departments apply differing approaches in how reporting obligations are identified, updated, and tracked, including variations in how regulatory changes (e.g., Lead and Copper Rule updates), future requirements (e.g., Pure Water reporting), and inspection-based activities are captured and

monitored. In certain cases, departments rely on recurring reminder schedules and internal tracking lists to monitor reporting obligations; however, these mechanisms did not consistently capture the full population of required reports or reflect updated requirements, reducing their reliability as a completeness check across departments.

Additionally, the monthly reminder email process does not fully reconcile to the complete set of regulatory reporting obligations and continues to rely heavily on departmental knowledge to determine what should be included. As a result, there is a risk that the reminder process, the tracker, and departmental practices may not remain fully aligned over time as reporting requirements expand or evolve.

The District's ongoing evaluation and implementation of a centralized compliance tracking system presents an opportunity to address identified process-level gaps within a more structured and coordinated reporting environment.²

Recommendation

Further standardize and maintain the regulatory reporting tracker by defining required fields, applying consistent naming conventions, implementing version control, assigning ownership for updates, and establishing a periodic reconciliation process to validate the completeness and accuracy of the reporting population against regulatory requirements, reporting schedules, and departmental records.

As the District progresses with the implementation of a centralized compliance tracking capability, management should incorporate these same requirements into platform configuration so that report inventories, responsibilities, and monitoring practices are consistently maintained and centrally aligned over time.

Management Response:

Water Operations and Engineering and Facilities staff will work with Information Systems staff to evaluate centralized reporting opportunities and review potential cost impacts with the goal of incorporating into proposed Fiscal Year 2027-28 budget and/or Fiscal Years 2028-2030 budget as necessary and aligned with District priorities.

OBSERVATION #3 – Formalization of Quality Control and Review Practices

Regulatory reports are reviewed prior to submission and supported by underlying documentation, including monitoring data, laboratory records, certifications, and cover letters. However, evidence of review and the documentation of quality control activities are not consistently standardized across departments or report types. Specifically, report packages do not consistently include documentation demonstrating how review was performed or how key items were evaluated and resolved. Testing identified limited documentation of corrective actions and closure for identified exceptions (e.g., recycled water exceedances and routine coliform positives), as well inconsistent traceability between summary reporting and underlying supporting data. Additional variability exists in how supporting context, such as explanations for operational anomalies or laboratory exceptions, was incorporated into reports.

Because review activities are not consistently documented or formalized, report packages do not provide a complete and supportable record of review performed, including how exceptions were identified, evaluated, and resolved. As a result, the District's ability to demonstrate that reports are complete, accurate, and appropriately reviewed is limited, particularly for reports involving exceptions, carryforward items, event-specific follow-up, external laboratory support, or multiple party inputs.

² The District has initiated implementation of SwiftComply and is evaluating configuration options to customize the system in a manner that best supports regulatory reporting requirements.

Recommendation

Implement standardized quality control procedures for regulatory reporting that can be scaled by report type but include common minimum review elements. These review procedures should address completeness of required fields, consistency of report references and regulatory citations, accuracy of key calculations and summary statements, timeliness of submission, and retention of final report packages and supporting documentation.

To support consistent execution, the District should implement structured review tools, such as standardized templates or checklists, to define required review steps, provide a consistent method for documenting review performed, and capture the identification, follow-up, and resolution of exceptions. The District should also define where and how evidence of review and exception resolution is retained within the report package so that review activities can be consistently performed, clearly documented, and readily demonstrated.

Management Response:

Water Operations and Engineering and Facilities staff will work with Information Systems staff to evaluate centralized reporting opportunities and review potential cost impacts with the goal of incorporating into proposed Fiscal Year 2027-28 budget and/or Fiscal Years 2028-2030 budget as necessary and aligned with District priorities.

OBSERVATION #4 – Continuity Planning and Record Accessibility

The District's reporting obligations are broad and include recurring operational reports, technical monitoring reports, event-driven filings, cross-agency submissions, and future requirements that will become active as projects or regulatory approvals advance. Testing showed that supporting documentation is often retained within email correspondence, shared drives, laboratory files, spreadsheets, or department-specific folders, and that workflows and evidence retention practices vary across departments.

In several instances, supporting context, follow-up information, or retained documentation was maintained within localized files or department-specific structures rather than within a clearly shared and accessible structure. For example, testing identified instances where access to documentation and tracking of key program elements, such as cross-connection inspection records, recycled water site supervisor information, and supporting data for annual regulatory reporting, required coordination across multiple sources. This fragmentation limits efficient access to complete support and consistent documentation.

As a result, report preparation, support retrieval, and interpretation of reporting history rely in part on individual knowledge and decentralized documentation. Prior discussions noted challenges when key preparers transitioned. Continuity gaps are more likely where reports rely on institutional knowledge to explain low-usage sites, post-incident sampling follow-up, inactive requirements, external agency inputs, or the status of future requirements. Limited backup coverage and decentralized retention increase time spent retrieving documentation, coordinating across staff, or reconstructing supporting information during absences, turnover, reviews, or management review.

Recommendation

Identify primary and backup preparers/reviewers for key reports, cross-train backups on critical preparation and review steps and establish consistent expectations for report package retention, access, and supporting documentation. These steps will improve continuity and ensure that reporting responsibilities and supporting information are consistently available, reducing reliance on decentralized knowledge and improving the efficiency of report preparation, support retrieval, and review.

Management Response:

Operations staff are currently working with Information Systems staff to evaluate centralized reporting opportunities and review potential cost impacts with the goal of incorporating into proposed Fiscal Year 2027-28 budget and/or Fiscal Years 2028-2030 budget as necessary and aligned with District priorities.



Board Briefing – Internal Audit

July 21, 2026



Regulatory Compliance

Objective & Scope

The **objective** was to evaluate internal controls over regulatory compliance within Engineering & Facilities (E&F) and Water Operations (WO), including processes used to identify, monitor, prepare, review, and retain regulatory reports to support complete, accurate, and timely compliance activities.

The **scope** of the engagement was regulatory compliance activities from June 1, 2025 – April 30, 2026.



Observation #1 – Centralized Visibility of Regulatory Reporting Obligations

Observation

Regulatory reporting responsibilities are decentralized across departments without a centralized management view of all reporting obligations. This limits enterprise-level oversight and results in reduced visibility, comparability, and management's ability to confirm completeness or respond efficiently to regulatory inquiries.

Recommendation

We recommend that management establish a centralized oversight view of all regulatory reporting obligations across departments, including ownership, due dates, type, and status. This will improve visibility, support consistent classification, enhance cross-department coordination, and enable timely, accurate responses to regulatory requirements.

Observation #2 – Reporting Tracker Standardization and Process Alignment

Observation

The regulatory reporting tracker provides a strong foundation for consolidating reporting obligations, but it is not yet sufficiently standardized to serve as the District's primary source for regulatory reporting obligations. Inconsistent naming conventions, incomplete fields, and limited status classifications reduce the ability to aggregate, interpret, and confirm completeness across departments.

Recommendation

Further standardize and maintain the tracker by defining required fields, applying consistent naming conventions, assigning update ownership, implementing version control, and periodically reconciling the tracker to regulatory requirements, reporting schedules, and departmental records. These standards should also be incorporated into the planned centralized compliance tracking approach.

Observation #3 – Formalization of Quality Control and Review Practices

Observation

Regulatory reports are reviewed prior to submission, but quality control and review practices are not consistently standardized, documented, or evidenced across departments and report types. This reduces traceability between reports and supporting data and limits the District's ability to demonstrate completeness and accuracy.

Recommendation

Implement standardized quality control procedures and structured review tools, such as templates and checklists, to document review activities, validate key report elements, and capture exception follow up and closure.

These practices will improve traceability, support completeness and accuracy, and provide consistent and supportable review across departments.

Observation #4 – Continuity Planning and Record Accessibility

Observation

Supporting documentation and reporting workflows are decentralized across departments, with documentation retained in email, shared drives, laboratory files, spreadsheets, and department specific folders. This creates inconsistent retention practices and reliance on individual knowledge, which may limit continuity, accessibility, and efficient retrieval of reporting support.

Recommendation

Define primary and backup preparers and reviewers for key reports, cross train staff on critical preparation and review steps, and establish consistent expectations for report package retention, access, and supporting documentation. This will reduce reliance on institutional knowledge and improve continuity, efficiency, and accessibility of reporting support.

Thank you

LVMWD Human Resources Internal Controls Assessment Audit Program

Statement of Work:

This letter outlines the understanding of the services that Eide Bailly LLP (Eide Bailly) will provide to Las Virgenes Municipal Water District (LVMWD) under Master Services Agreement dated October 6, 2025.

Fees:

Our fees are based on the complexity of the engagement and the experience level of the staff required to address them and are inclusive of project management and management oversight. We propose a **not to exceed fee of \$65,000** based on our understanding of the scope of work and the level of involvement of LVMWD personnel. If you request additional services, we will obtain agreement on fees before commencing work so there are no surprises or hidden fees.

Audit Objective

To evaluate LVMWD Human Resources (HR) and payroll processes to assess:

1. Whether internal controls over HR management are appropriately designed and operating effectively to support compliance with laws, regulations, internal policies, and leading practices.
2. The effectiveness of the District's recruitment strategy, workforce planning, and vacancy management processes.
3. The execution of recruiting and hiring practices, including coordination with hiring divisions and achievement of performance objectives.

The engagement will address risks related to:

- Inaccurate or unauthorized payroll transactions
- Ineffective hiring, onboarding, and termination controls
- Noncompliance with selected high risk federal and California labor requirements applicable to public sector employers
- Ineffective workforce planning and vacancy management practices

Applicable regulatory areas will be limited to commonly applicable provisions such as wage and hour practices, payroll authorization, and equal employment opportunity considerations. This engagement does not constitute a legal determination of compliance.

Audit Approach Overview

To ensure the engagement remains efficient while providing sufficient coverage, procedures will include targeted sampling and focused testing of higher risk areas. Sampling is risk based and is not designed to identify all instances of noncompliance.

Audit procedures will focus on areas of higher inherent and control risk, including payroll processing, employee lifecycle transactions, and recruitment activities, based on discussions with management and preliminary risk assessment procedures.

- Payroll testing will focus on a selection of employees across key risk categories, informed by preliminary discussions with management and identified risk areas.
- Recruitment testing will focus on a sample of recent hires.
- Analysis will prioritize recent periods and higher risk transactions.
- Interviews will be conducted with key personnel involved in HR and payroll processes.

This engagement is not intended to provide legal advice or a comprehensive assessment of compliance with all applicable federal or California labor laws. Where legal interpretation is required, consultation with qualified legal counsel is recommended.

Audit Procedures

HR Governance and Compliance

We will evaluate whether HR policies, procedures, and oversight practices are established, maintained, and followed by the District. Procedures will include:

- Reviewing key HR policies, procedures, and employee handbook provisions for completeness, evidence of approval, and consistency with internal practices.
- Performing walkthroughs of core HR processes, including hiring, compensation changes, and terminations.
- Assessing management oversight practices, including monitoring and policy update processes.
- Reviewing documentation standards and record retention practices.

Recruitment, Hiring, and Workforce Planning

We will assess whether recruitment processes are effective, compliant with internal policies, and aligned with workforce needs. Procedures will include:

- Analyzing workforce data, including vacancies, hiring activity, and time to fill.
- Evaluating workforce planning processes and prioritization of critical roles.
- Reviewing recruiting and hiring procedures for consistency with internal policies and applicable equal employment opportunity requirements.
- Testing a sample of hires to assess documentation, approvals, and adherence to procedures.
- Conducting interviews with HR personnel and hiring managers.

Payroll Processing

We will evaluate payroll accuracy, control effectiveness, and test compliance with selected high risk payroll related requirements as defined by District policy and commonly applicable regulatory expectations. Procedures will include:

- Performing payroll process walkthroughs from timekeeping through disbursement.
- Testing a sample of payroll transactions to evaluate completeness, accuracy, timeliness, and appropriate authorization of payroll calculations, compensation changes, deductions, adjustments, employee additions, and separation pay.
- Evaluating segregation of duties and access controls within payroll processing.
- Evaluating compliance with defined criteria, including:
 - Approved pay rates and compensation changes
 - Overtime authorization and calculation
 - Timely processing of payroll adjustments

Human Resources Knowledge and Operational Awareness

We will evaluate whether HR and payroll personnel demonstrate awareness of internal policies and their responsibilities in executing key processes. Procedures will include:

- Conducting interviews with HR and payroll personnel.
- Assessing understanding of internal policies related to hiring, payroll processing, and employee transactions.
- Reviewing compliance related training programs and participation.

Performance Metrics and Management Oversight

We will evaluate whether HR performance is effectively measured and managed. Procedures will include:

- Reviewing key workforce metrics such as time to hire, vacancy rates, and turnover.
- Assessing whether metrics are consistently tracked and used for decision making.
- Evaluating management reporting and oversight practices.
- Identifying gaps in workforce analytics and workforce planning.