LAS VIRGENES MUNICIPAL WATER DISTRICT 4232
Las Virgenes Road
Calabasas, CA 91302
Pursuant to Government Code Section 54953(b) Director Andy Coradeschi will be participating via teleconference from 555 Norbie Rd. Sedona, AZ 86336

AGENDA
LVMWD BOARD OF DIRECTORS - REGULAR MEETING
TUESDAY, APRIL 7, 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 agendized 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: April 07, 2026** **(Pg. 7)**
Receive and file.

4.B **Minutes: Special Meeting of March 25, 2026** **(Pg. 67)**
Approve.

4.C **Contract Laboratory Services: Increase and Extension** **(Pg. 72)**
Authorize the General Manager to execute a contract amendment to extend the term of the professional services agreement with Weck Laboratories, Inc., from January 18 through April 15, 2026; and approve an increase, in the amount of $87,900, for contract laboratory services.

4.D **Hydraulic Modeling for Sewer and Potable Water Systems: Award** **(Pg. 74)**
Accept the proposal from Kennedy/Jenks Consultants, Inc. and authorize the General Manager to execute a professional services agreement, in the amount of $385,817, for engineering services associated with developing a sewer system hydraulic model and updating the existing potable water system hydraulic model.

4.E **On-Call Construction Management and Inspection Services: Award** **(Pg. 131)**
Accept the proposal from NV5 and authorize the General Manager to execute a one-year professional services agreement, in the amount of $450,000, with four one-year renewal options for on-call construction management and inspection services.

4.F **Contract for Retired Annuitant Part-Time Limited Duration Assignment: Increase** **(Pg. 199)**
Authorize an increase of $30,000 to the contract for the part-time, limited duration assignment for retired annuitant, Ronald Jones, from $50,000 to $80,000.

5. **ILLUSTRATIVE AND/OR VERBAL PRESENTATION OF AGENDA ITEMS**

5.A **Water Supply Conditions Update** **(Pg. 201)**

5.B **Legislative and Regulatory Update**

6. **TREASURER**

7. **BOARD OF DIRECTORS**

7.A **Local Agency Formation Commission: Election of Special District Representative** **(Pg. 206)**
Select a candidate to serve as the Local Agency Formation Commission Special District Representative and authorize the General Manager to execute and return the official voting ballot no later than 5:00 p.m. on Friday, May 1, 2026.

8. **GENERAL MANAGER**

8.A **Climate Action and Adaptation Plan (CAAP): Annual Update** **(Pg. 218)**

Receive the Climate Action and Adaptation Plan Annual Update and provide feedback on continued implementation including activities associated with Action Items I-1.2 and I-1.3.

8.B **Public Hearing on Vacancies and Recruitment and Retention Efforts** **(Pg. 337)**
Conduct a public hearing on vacancies and recruitment and retention efforts in compliance with Assembly Bill No. 2561.

9. **EXTERNAL AFFAIRS**

9.A **Draft 2025 Urban Water Management Plan: Notice of Availability** **(Pg. 349)**
Review and provide feedback on the draft 2025 Urban Water Management Plan.

9.B **Enforcement Measures for Water Theft and Unauthorized Water Use: Introduction, Public Hearing and First Reading** **(Pg. 510)**
Conduct a public hearing, introduce, waive the full reading, and call for first reading by title only for proposed Ordinance No. 291 as it relates to enforcement measures for water theft and unauthorized water use.

ORDINANCE NO. 291

AN ORDINANCE OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT AS IT RELATES TO ENFORCEMENT MEASURES FOR WATER THEFT AND UNAUTHORIZED WATER USE.

(Reference is hereby made to Ordinance No. 291 on file in the District's Ordinance Book and by this reference the same is incorporated herein.)

10. **FINANCE AND TECHNOLOGY**

(Pg. 532)

10.A **Pure Water Project Las Virgenes-Triunfo: Authorization of Payment Obligation for Construction Loan and Grant Agreement with State Water Resources Control Board**
Pass, approve and adopt proposed Resolution No. 2669, authorizing the incurrence of a payment obligation under LVMWD's Payment Agreement, in an initial principal amount up to $52,950,000, ratifying the prior approval of the Payment Agreement and authorizing its execution.

RESOLUTION NO. 2669

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT APPROVING A PAYMENT OBLIGATION UNDER THE PAYMENT AGREEMENT IN A PRINCIPAL AMOUNT UP TO $52,950,000 WITH RESPECT TO A CONSTRUCTION LOAN AND GRANT AGREEMENT AMONG LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY, LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY AND CALIFORNIA STATE WATER RESOURCES CONTROL BOARD AND RELATED DOCUMENTATION RELATING TO THE PURE WATER PROJECT AND AUTHORIZING CERTAIN ACTIONS IN CONNECTION THEREWITH

(Reference is hereby made to Resolution No. 2669 on file in the District's Resolution Book and by this reference the same is incorporated herein.)

(Pg. 612)

10.B **Pure Water Project Las Virgenes-Triunfo: Authorization of Payment Obligation for Credit Agreement to Provide Interim Financing**

Pass, approve and adopt proposed Resolution No. 2670, authorizing the incurrence of a payment obligation under LVMWD's Payment Agreement, in an initial principal amount up to $109,430,000, ratifying the prior approval of the Payment Agreement and authorizing its execution.

RESOLUTION NO. 2670

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT APPROVING A PAYMENT OBLIGATION UNDER THE PAYMENT AGREEMENT IN AN INITIAL PRINCIPAL AMOUNT UP TO $109,430,000 WITH RESPECT TO A CREDIT AGREEMENT AND RELATED DOCUMENTATION RELATING TO THE PURE WATER PROJECT AND AUTHORIZING CERTAIN ACTIONS IN CONNECTION THEREWITH

(Reference is hereby made to Resolution No. 2670 on file in the District's Resolution Book and by this reference the same is incorporated herein.)

11. **WATER OPERATIONS**

11.A **Contractual Laboratory Services: Award** **(Pg. 752)**

Accept the proposal from Eurofins Drinking Water and Wastewater West, LLC, and authorize the General Manager to execute a one-year professional services agreement, in an amount not to exceed $530,158, with four one-year renewal options including 3% annual inflationary adjustments, for contractual laboratory services.

12. **NON-ACTION ITEMS**

A. General Manager's Reports

(a) General Business

(b) Follow-up Items

B. Directors' Comments and Reports on Outside Meetings

13. **FUTURE AGENDA ITEMS**

14. **CLOSED SESSION**

14.A **Claim by David Kempton**

14.B **Claim by Victoria Ghiam**

14.C **Conference with District Legal Counsel - Existing Litigation (Government Code**

Section 54956.9(d)(1)): Two Cases

- Stacy Harper v. Las Virgenes Municipal Water District
- Dan Grigsby, et al., v. City of Los Angeles, et al.

15. **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 : April 7, 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. 114199-114328; ACH/ACI Nos. 1089-1105; 1108-1116 were issued in the total amount of:	**$ 7,085,386.71**
Payments through direct disbursements as follows:	
Direct Disbursement payment number 26182-26194	**$ 6,913.11**
Payments through wire transfers as follows:	
	$ -
Total Payments	**$ 7,092,299.82**

(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
4/7/2026

Company Name	Company No.	Check No. 114199-114234; 1089-1099 03/03/26 Amount	Check No. 114235-114273; 1100-1105 03/10/26 Amount	Check No. 114274-114328; 1108-1116 03/17/26 Amount	Total
Potable Water Operations	101	216,769.55	130,009.19	88,069.95	434,848.69
Recycled Water Operations	102		695.81		695.81
Sanitation Operations	130	576.64	17,433.99	966.17	18,976.80
Potable Water Construction	201				-
Water Conservation Construction	203				-
Sanitation Construction	230				-
Potable Water Replacement	301	5,276.10	1,004,854.31	65,241.31	1,075,371.72
Recycled Water Replacement	302				-
Sanitation Replacement	330	18,158.75			18,158.75
Internal Service	701	37,961.87	126,056.59	106,141.93	270,160.39
JPA Operations	751	83,592.94	199,598.11	168,579.40	451,770.45
JPA Construction	752				-
JPA Replacement	754	3,999.53	57,168.35	4,754,236.22	4,815,404.10
	Total Printed	**366,335.38**	**1,535,816.35**	**5,183,234.98**	**7,085,386.71**
Voided Checks/ACH/ACI stopped:					
		-	-	-	-
		-	-	-	-
		-	-	-	-
		-	-	-	-
	Total Voids	**-**	**-**	**-**	**-**
	Net Total	**366,335.38**	**1,535,816.35**	**5,183,234.98**	**7,085,386.71**

DIRECT DISBURSEMENTS LISTING FOR BOARD MEETING
4/7/2026

Company Name	Company No.	Direct Disb. No. 26182-26193 03/03/26 Amount	Direct Disb. No. 26194 03/17/26 Amount	Total
Potable Water Operations	101	91.88	2,037.23	2,129.11
Recycled Water Operations	102			-
Sanitation Operations	130	206.56		206.56
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	2,332.16		2,332.16
JPA Operations	751	2,245.28		2,245.28
JPA Construction	752			-
JPA Replacement	754			-
	Total Printed	**4,875.88**	**2,037.23**	**6,913.11**
Voided Direct Disbursements:				
		-	-	-
		-	-	-
	Total Voids	**-**	**-**	**-**
	Totals	**4,875.88**	**2,037.23**	**6,913.11**

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				
1089	03/03/2026	EFT	11330	DIAL SECURITY	526104	02/09/2026		030326	54.22
Invoice: 526104						RATE INC 12/29/25-2/28/26 TAPIA			
				54.22	751810 551800	Building Maintenance			
				DIAL SECURITY	526105	02/09/2026		030326	7.01
Invoice: 526105						RATE INC 12/29/25-2/28/26 WLK P/S			
				7.01	101600 551800	Building Maintenance			
				DIAL SECURITY	526106	02/09/2026		030326	25.01
Invoice: 526106						RATE INC 12/29/25-2/28/26 WLK FILTER			
				25.01	101600 551800	Building Maintenance			
				DIAL SECURITY	526110	02/09/2026		030326	7.01
Invoice: 526110						RATE INC 12/29/25-2/28/26 RLV			
				7.01	751820 551800	Building Maintenance			
				DIAL SECURITY	526112	02/09/2026		030326	3.00
Invoice: 526112						RATE INC 12/29/25-2/28/26 CELL PLAN-RLV			
				3.00	751820 551800	Building Maintenance			
						CHECK	1089 TOTAL:		96.25
1090	03/03/2026	EFT	9884	DICALITE MINERALS CORP.	465799	02/10/2026		030326	14,852.03
Invoice: 465799						44 BAGS DICALITE			
				14,852.03	101600 541000	Supplies/Material			
						CHECK	1090 TOTAL:		14,852.03
1091	03/03/2026	EFT	20856	INTERNATIONAL PRINTING & TYPESETT	23777	02/05/2026		030326	428.03
Invoice: 23777						3 CONTRACTS TAPIA CLARIFIER REHAB PRJCT			
				428.03	754440 900000	Capital Asset Expenses			
						CHECK	1091 TOTAL:		428.03
1092	03/03/2026	EFT	3035	VWR SCIENTIFIC	8820978025	02/12/2026		030326	351.86
Invoice: 8820978025						PH ELECTRODE KIT			
				351.86	701341 551000	Supplies/Material			
				VWR SCIENTIFIC	8820988937	02/13/2026		030326	325.07
Invoice: 8820988937						TIMERS, PARAFILM & PH BUFFER			
				325.07	701341 551000	Supplies/Material			
				VWR SCIENTIFIC	8820988938	02/13/2026		030326	125.33
Invoice: 8820988938						THERMOMETERS			
				125.33	701341 551000	Supplies/Material			
						CHECK	1092 TOTAL:		802.26

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				
1093	03/03/2026	EFT	30420	WEST YOST & ASSOCIATES, INC	2066086	12/31/2025	030326		8,702.75
Invoice: 2066086						GRANT MANAGEMENT SERVICE DECEMBER 2025			
				8,702.75	701210 651600	Other Professional Serv			
						CHECK	1093 TOTAL:		8,702.75
1094	03/03/2026	PRTD	2814	MCMASTER-CARR SUPPLY CO	59659757	02/11/2026	030326		204.37
Invoice: 59659757						MIDGET FUSE FOR TRANSFORMERS & GLASS-TUBE FUSE			
				204.37	751820 551000	Supplies/Material			
						CHECK	1094 TOTAL:		204.37
1095	03/03/2026	PRTD	7770	AUTOMATIONDIRECT.COM	18930651	02/11/2026	030326		1,281.88
Invoice: 18930651						ELECTRICAL SUPPLIES			
				1,281.88	751820 551000	Supplies/Material			
				AUTOMATIONDIRECT.COM	18903641	02/04/2026	030326		192.61
Invoice: 18903641						ELECTRICAL SUPPLIES			
				192.61	751810 551000	Supplies/Material			
				AUTOMATIONDIRECT.COM	18951960	02/18/2026	030326		227.73
Invoice: 18951960						ELECTRICAL SUPPLIES			
				227.73	751820 551000	Supplies/Material			
						CHECK	1095 TOTAL:		1,702.22
1096	03/03/2026	PRTD	18914	WECK LABORATORIES, INC.	W5L1017	01/30/2026	030326		23,259.96
Invoice: W5L1017						LAB SAMPLING			
				178.25	101600 571520	Other Laboratory Serv			
				1,216.00	751810 571520	Other Laboratory Serv			
				1,438.56	751810 571520	Other Laboratory Serv			
				4,685.00	751810 571520	Other Laboratory Serv			
				29.25	701341 551500	Outside Services			
				14,246.00	751810 571520	Other Laboratory Serv			
				275.50	751810 571520	Other Laboratory Serv			
				490.00	101300 571520	Other Laboratory Serv			
				161.50	751810 571520	Other Laboratory Serv			
				14.00	751810 571520	Other Laboratory Serv			
				280.50	101300 571520	Other Laboratory Serv			
				245.40	101600 571520	Other Laboratory Serv			
						CHECK	1096 TOTAL:		23,259.96
1097	03/03/2026	PRTD	20491	BEST BEST & KRIEGER LLP	1053768	02/16/2026	030326		9,004.63
Invoice: 1053768						JANUARY 2026 FEDERAL LOBBYING			
				9,004.63	751840 651600	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	1097 TOTAL:		9,004.63
1098	03/03/2026	PRTD	30387	CINTAS CORPORATION NO. 3	4258635135	02/05/2026		030326	684.41
	Invoice: 4258635135					FEBRUARY 2026 UNIFORMS/MATS/TOWELS			
					121.04 701002 551000	Supplies/Material			
					563.37 701999 731600	Uniforms			
				CINTAS CORPORATION NO. 3	4258473021	02/04/2026		030326	287.46
	Invoice: 4258473021					FEBRUARY 2026 UNIFORMS/MATS/TOWELS			
					109.32 751810 551000	Supplies/Material			
					178.14 701999 731600	Uniforms			
				CINTAS CORPORATION NO. 3	4258634490	02/05/2026		030326	191.06
	Invoice: 4258634490					FEBRUARY 2026 UNIFORMS/MATS/TOWELS			
					83.66 751820 551000	Supplies/Material			
					107.40 701999 731600	Uniforms			
				CINTAS CORPORATION NO. 3	4258305660	02/03/2026		030326	159.80
	Invoice: 4258305660					FEBRUARY 2026 UNIFORMS/MATS/TOWELS			
					41.89 101600 551000	Supplies/Material			
					117.91 701999 731600	Uniforms			
				CINTAS CORPORATION NO. 3	4257564324	01/27/2026		030326	159.80
	Invoice: 4257564324					JANUARY 2026 UNIFORMS/MATS/TOWELS			
					41.89 101600 551000	Supplies/Material			
					117.91 701999 731600	Uniforms			
				CINTAS CORPORATION NO. 3	4257731653	01/28/2026		030326	287.46
	Invoice: 4257731653					JANUARY 2026 UNIFORMS/MATS/TOWELS			
					109.32 751810 551000	Supplies/Material			
					178.14 701999 731600	Uniforms			
				CINTAS CORPORATION NO. 3	4257886563	01/29/2026		030326	191.06
	Invoice: 4257886563					JANUARY 2026 UNIFORMS/MATS/TOWELS			
					83.66 751820 551000	Supplies/Material			
					107.40 751820 551000	Supplies/Material			
				CINTAS CORPORATION NO. 3	4256397701	01/15/2026		030326	740.09
	Invoice: 4256397701					JANUARY 2026 UNIFORMS/MATS/TOWELS			
					121.04 701002 551000	Supplies/Material			
					619.05 701999 731600	Uniforms			
				CINTAS CORPORATION NO. 3	4259222672	02/11/2026		030326	287.46
	Invoice: 4259222672					FEBRUARY 2026 UNIFORMS/MATS/TOWELS			
					109.32 751810 551000	Supplies/Material			
					178.14 701999 731600	Uniforms			
				CINTAS CORPORATION NO. 3	4259053598	02/10/2026		030326	159.80
	Invoice: 4259053598					FEBRUARY 2026 UNIFORMS/MATS/TOWELS			
					41.89 101600 551000	Supplies/Material			
					117.91 701999 731600	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				
						CHECK	1098 TOTAL:		3,148.40
1099	03/03/2026	PRTD	30619	LLOYD'S PLUMBING, INC.	205223432	02/12/2026		030326	2,369.26
Invoice: 205223432						REPLACE URINAL 2/12/26			
					2,369.26 701001 551500	Outside Services			
						CHECK	1099 TOTAL:		2,369.26
114199	03/03/2026	PRTD	30461	ALTERNATIVE HOSE INC.	6139016	02/05/2026	2260127	030326	2,910.57
Invoice: 6139016						FITTINGS & HOSE FOR OPS			
					2,910.57 101700 551000	Supplies/Material			
						CHECK	114199 TOTAL:		2,910.57
114200	03/03/2026	PRTD	30729	AMAZON CAPITAL SERVICES, INC.	1CF9-MD13-7QCT	02/17/2026		030326	41.92
Invoice: 1CF9-MD13-7QCT						CPPO EXAMINATION PREP GUIDE			
					41.92 701440 683000	Training & Professional Devel			
				AMAZON CAPITAL SERVICES, INC.	1T7F-N1R1-9H1W	02/17/2026		030326	187.67
Invoice: 1T7F-N1R1-9H1W						FIBERGLASS POLE SET WITH WIRE RAISER			
					187.67 701521 572500	Genl Supplies/Small Tools			
				AMAZON CAPITAL SERVICES, INC.	1VCX-W7CL-KLRN	02/13/2026		030326	29.87
Invoice: 1VCX-W7CL-KLRN						SPLIT WIRE LOOM TUBING & ZIP TIES			
					29.87 701525 551000	Supplies/Material			
				AMAZON CAPITAL SERVICES, INC.	1WFP-4N13-6KK7	02/01/2026		030326	82.18
Invoice: 1WFP-4N13-6KK7						BURLAP SAND BAGS			
					82.18 101900 572500	Genl Supplies/Small Tools			
				AMAZON CAPITAL SERVICES, INC.	19NG-6M93-7RYT	02/17/2026		030326	11.50
Invoice: 19NG-6M93-7RYT						USB CABLE			
					11.50 701526 572500	Genl Supplies/Small Tools			
				AMAZON CAPITAL SERVICES, INC.	137N-GMKL-7V3V	01/21/2026		030326	72.36
Invoice: 137N-GMKL-7V3V						ELECTROLYTE POWDER HYDRATION DRINK MIX			
					72.36 101900 572500	Genl Supplies/Small Tools			
				AMAZON CAPITAL SERVICES, INC.	1JTX-4JKH-67C1	02/18/2026		030326	6.21
Invoice: 1JTX-4JKH-67C1						PENS			
					6.21 101900 572500	Genl Supplies/Small Tools			
				AMAZON CAPITAL SERVICES, INC.	1KND-XHFD-C3Y7	02/18/2026		030326	187.64
Invoice: 1KND-XHFD-C3Y7						CIRCUIT CONTROL RELAY SYSTEM & TOOL BAG			
					187.64 701526 572500	Genl Supplies/Small Tools			
				AMAZON CAPITAL SERVICES, INC.	1Q1L-CT6N-VPHG	02/19/2026		030326	123.27
Invoice: 1Q1L-CT6N-VPHG						BURLAP SAND BAGS			

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				
				123.27 101900 572500 Genl Supplies/Small Tools					
				AMAZON CAPITAL SERVICES, INC.	13L3-PFYL-7LHW	02/18/2026		030326	104.84
Invoice: 13L3-PFYL-7LHW						DUAL POWER HEADLAMP & AUTOMOTIVE WORK LIGHT			
				104.84 701526 572500 Genl Supplies/Small Tools					
				AMAZON CAPITAL SERVICES, INC.	13L3-PFYL-7LPF	02/18/2026		030326	271.29
Invoice: 13L3-PFYL-7LPF						YELLOW & MAGENTA TONER			
				271.29 701121 620000 Forms, Supplies And Postage					
				AMAZON CAPITAL SERVICES, INC.	1619-TXYQ-9LGR	02/17/2026		030326	43.87
Invoice: 1619-TXYQ-9LGR						CHAIR MAT FOR CARPET & CORK STOPPERS			
				43.87 701521 572500 Genl Supplies/Small Tools					
						CHECK	114200 TOTAL:		1,162.62
114201	03/03/2026	PRTD	30083	AQUATIC GARDENS LLC	15721	01/21/2026		030326	190.00
Invoice: 15721						POND MAINT JANUARY 2026			
				190.00 701001 551500 Outside Services					
						CHECK	114201 TOTAL:		190.00
114202	03/03/2026	PRTD	18071	BLUE DIAMOND MATERIALS	4473682	02/16/2026		030326	326.86
Invoice: 4473682						3.510 TONS AC 3/8 FINE			
				326.86 101700 551000 Supplies/Material					
						CHECK	114202 TOTAL:		326.86
114203	03/03/2026	PRTD	20655	CANNON CORPORATION	94736	12/31/2025		030326	18,158.75
Invoice: 94736						LIFT STATION NO.1 REHAB NOVEMBER 2025			
				18,158.75 330440 900000 Capital Asset Expenses					
				CANNON CORPORATION	94870	01/22/2026		030326	988.50
Invoice: 94870						JED SMITH, MCCOY TNK REHAB DECEMBR 2025			
				988.50 301440 900000 Capital Asset Expenses					
				CANNON CORPORATION	95134	02/16/2026		030326	3,999.60
Invoice: 95134						P/R STATION NO. 32 REHAB JANUARY 2026			
				3,999.60 301440 900000 Capital Asset Expenses					
				CANNON CORPORATION	95157	02/17/2026		030326	288.00
Invoice: 95157						JED SMITH, MCCOY TNK REHAB JANUARY 2026			
				288.00 301440 900000 Capital Asset Expenses					
						CHECK	114203 TOTAL:		23,434.85

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				
114204	03/03/2026	PRTD	31097	CHANNEL ISLANDS RESTORATION	26LVMWD01	01/31/2026		030326	3,241.99
Invoice: 26LVMWD01						WEED ABATEMENT JANUARY 2026			
				3,241.99	751800 551500	Outside Services			
						CHECK	114204	TOTAL:	3,241.99
114205	03/03/2026	PRTD	31127	CHARLES WARNER	053026/020926	02/09/2026		030326	816.28
Invoice: 053026/020926						REFUND ON CLOSED ACCT#0000410142-053026			
				816.28	101 230500	Deposit Refd Clearing-Billing			
						CHECK	114205	TOTAL:	816.28
114206	03/03/2026	PRTD	15755	CORE & MAIN LP	Y450605	02/05/2026	2260130	030326	3,155.60
Invoice: Y450605						SPOOLS			
				3,155.60	701224 551000	Supplies/Material			
						CHECK	114206	TOTAL:	3,155.60
114207	03/03/2026	PRTD	3498	DEPT. OF WATER & POWER - CITY OF	GA83851	02/05/2026		030326	41.67
Invoice: GA83851						SEWER PERMIT 3/21-2/20/26			
				41.67	130100 542000	Permits and Fees			
						CHECK	114207	TOTAL:	41.67
114208	03/03/2026	PRTD	7257	DIRECTV, INC.	017818825X260213	02/13/2026		030326	10.00
Invoice: 017818825X260213						TV ACCESS FEE 2/12-3/11/26			
				10.00	751820 551500	Outside Services			
				DIRECTV, INC.	017819005X260216	02/16/2026		030326	26.25
Invoice: 017819005X260216						TV ACCESS FEE 2/15-3/14/26			
				26.25	751810 551500	Outside Services			
						CHECK	114208	TOTAL:	36.25
114209	03/03/2026	PRTD	18441	EMPLOYEE RELATIONS NETWORK	100214	11/30/2025		030326	153.38
Invoice: 100214						EE BACKGROUND CHECKS			
				153.38	701125 681000	Recruitment Expense			
				EMPLOYEE RELATIONS NETWORK	100630	02/18/2026		030326	-20.00
Invoice: 100630						CR FOR INV#100214			
				-20.00	701125 681000	Recruitment Expense			
						CHECK	114209	TOTAL:	133.38

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					
114210	03/03/2026	PRTD	6770	G.I. INDUSTRIES	0056223-0283-3	02/16/2026		030326	881.23
Invoice: 0056223-0283-3						DISP TAPIA RAGS 2/1-2/15/26			
				881.23 751810 541500		Outside Services			
				G.I. INDUSTRIES	3192839-0283-5	02/16/2026		030326	31.44
Invoice: 3192839-0283-5						DISP CENTRATE TANK 2/1-2/15/26			
				31.44 751830 551500		Outside Services			
				G.I. INDUSTRIES	3192824-0283-7	02/16/2026		030326	682.29
Invoice: 3192824-0283-7						25YD ROLLOFF 3700 LV 2/1-2/15/26			
				682.29 751820 551800		Building Maintenance			
				G.I. INDUSTRIES	3192823-0283-9	02/16/2026		030326	1,358.45
Invoice: 3192823-0283-9						25 YD ROLLOFF DISP 2/1-2/15/26			
				1,358.45 701002 551500		Outside Services			
						CHECK	114210 TOTAL:		2,953.41
114211	03/03/2026	PRTD	18646	HDR ENGINEERING, INC.	1200787383	12/31/2025		030326	6,897.50
Invoice: 1200787383						OCEANWELL STUDY 11/30-12/2/25			
				6,897.50 101900 651100		Outside Services			
				HDR ENGINEERING, INC.	1200795721	01/28/2026		030326	8,027.50
Invoice: 1200795721						OCEANWELL STUDY 12/28/25-1/24/26			
				8,027.50 101900 651100		Outside Services			
						CHECK	114211 TOTAL:		14,925.00
114212	03/03/2026	PRTD	31126	JAHANDAR R SALEH	067471/020326	02/03/2026		030326	1,806.80
Invoice: 067471/020326						REFUND ON CLOSED ACCT#0000490716-067471			
				1,806.80 101 230500		Deposit Refd Clearing-Billing			
						CHECK	114212 TOTAL:		1,806.80
114213	03/03/2026	PRTD	5230	KENNEDY/JENKS CONSULTANTS	185499	01/23/2026		030326	32,210.00
Invoice: 185499						WATER SUPPLY RLBLTY & DVRSFCTN THRU 1/2/26			
				32,210.00 101900 651100		Outside Services			
				KENNEDY/JENKS CONSULTANTS	186032	02/17/2026		030326	9,272.50
Invoice: 186032						WATER SUPPLY RLBLTY & DVRSFCTN THRU 1/30/26			
				9,272.50 101900 651100		Outside Services			
						CHECK	114213 TOTAL:		41,482.50
114214	03/03/2026	PRTD	31062	KSM PROMOTIONS, INC.	063997	01/31/2026		030326	97.00
Invoice: 063997						EMPLOYEE SWAG MONTHLY MAINTENANCE JANUARY 2026			
				97.00 701125 681500		Empl Recognition Functions			

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				
				KSM PROMOTIONS, INC.	063996	01/31/2026		030326	1,699.00
				Invoice: 063996		EMPLOYEE SWAG ORDERS			
					1,699.00 701125 681500	Empl Recognition Functions			
						CHECK	114214	TOTAL:	1,796.00
114215	03/03/2026	PRTD	2611	LA DWP	0176980000/021826	02/18/2026		030326	51.75
				Invoice: 0176980000/021826		RECTIFIER 1/20-2/18/26			
					51.75 101700 540510	Energy			
						CHECK	114215	TOTAL:	51.75
114216	03/03/2026	PRTD	14322	MILES CHEMICAL COMPANY, INC	765864	02/20/2026		030326	2,942.53
				Invoice: 765864		53GAL SOD. HYP., 750LB SULF ACD, 52LB CAUS. SDA			
					2,942.53 751750 541000	Supplies			
				MILES CHEMICAL COMPANY, INC	766070	02/24/2026		030326	-115.00
				Invoice: 766070		CR CONTAINER DEPOSIT			
					-115.00 751750 541000	Supplies			
						CHECK	114216	TOTAL:	2,827.53
114217	03/03/2026	PRTD	30857	MRC SMART TECHNOLOGY SOLUTIONS	IN5232857	02/09/2026		030326	814.52
				Invoice: IN5232857		CANON OVRG 1/7-2/6/26			
					814.52 701420 620500	Equip Rental			
						CHECK	114217	TOTAL:	814.52
114218	03/03/2026	PRTD	31035	NATURAL OCEAN WELL CO.	3	01/22/2026		030326	135,063.21
				Invoice: 3		OCEANWELL PILOT STUDY 7/1/25-1/16/26			
					135,063.21 101900 651100	Outside Services			
						CHECK	114218	TOTAL:	135,063.21
114219	03/03/2026	PRTD	30922	NORTH HILLS RECYCLING INC.	33394	02/16/2026		030326	1,731.86
				Invoice: 33394		120 1/4 INCH WOOD CHIP BULK SUPPLY			
					1,731.86 751820 541080	Amendment			
				NORTH HILLS RECYCLING INC.	33393	02/16/2026		030326	1,731.86
				Invoice: 33393		120 1/4 INCH WOOD CHIP BULK SUPPLY			
					1,731.86 751820 541080	Amendment			
						CHECK	114219	TOTAL:	3,463.72

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				
114220	03/03/2026	PRTD	2302	ODP BUSINESS SOLUTIONS LLC	458753808001	02/06/2026		030326	55.18
Invoice: 458753808001						ERGO WRIST REST & MOUSE PAD			
				55.18 701230 620000		Forms, Supplies And Postage			
						CHECK	114220 TOTAL:		55.18
114221	03/03/2026	PRTD	15824	OUTBACK FOOTWEAR	70545	01/10/2026		030326	275.00
Invoice: 70545						SAFETY FOOTWEAR - L. KIBLINGER			
				275.00 701322 623000		Safety Equip			
				OUTBACK FOOTWEAR	70580	01/10/2026		030326	275.00
Invoice: 70580						SAFETY FOOTWEAR - B. STARR			
				275.00 701420 623000		Safety Equip			
				OUTBACK FOOTWEAR	70559	01/10/2026		030326	275.00
Invoice: 70559						SAFETY FOOTWEAR - J. ANDERSON			
				275.00 701226 623000		Safety Equip			
				OUTBACK FOOTWEAR	70581	01/10/2026		030326	275.00
Invoice: 70581						SAFETY FOOTWEAR - B. GENTRY			
				275.00 701226 623000		Safety Equip			
						CHECK	114221 TOTAL:		1,100.00
114222	03/03/2026	PRTD	18946	PACIFIC ADVANCED CIVIL ENGINEERIN	11237	12/31/2025		030326	3,571.50
Invoice: 11237						DESIGN TAPIA ALUM SULFATE TANK DECEMBER 2025			
				3,571.50 754440 900000		Capital Asset Expenses			
						CHECK	114222 TOTAL:		3,571.50
114223	03/03/2026	PRTD	8506	PADRE ASSOCIATES, INC.	2026-174	02/08/2026		030326	697.50
Invoice: 2026-174						MONITORING MALIBOU LAKE SPHN NOV 2025-JAN 2026			
				697.50 751800 551500		Outside Services			
						CHECK	114223 TOTAL:		697.50
114224	03/03/2026	PRTD	30269	PAPER RECYCLING & SHREDDING SPECI	622503	02/11/2026		030326	89.00
Invoice: 622503						ON SITE DOC SHREDDING 2/11/26			
				89.00 701121 623500		Records Management			
						CHECK	114224 TOTAL:		89.00
114225	03/03/2026	PRTD	30458	PIONEER AMERICAS, LLC (OLIN CORP)	900674558	02/03/2026		030326	9,184.43
Invoice: 900674558						4,824 GAL SODIUM HYPOCHLORITE			
				9,184.43 751810 541014		Sodium Hypochlorite			

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				
				PIONEER AMERICAS, LLC (OLIN CORP)	900677335	02/10/2026		030326	9,195.85
	Invoice: 900677335					4,830 GAL SODIUM HYPOCHLORITE			
					9,195.85 751810 541014	Sodium Hypochlorite			
						CHECK	114225 TOTAL:		18,380.28
114226	03/03/2026	PRTD	4586	ROYAL INDUSTRIAL SOLUTIONS	9009-1066433	02/11/2026		030326	4,337.10
	Invoice: 9009-1066433					REPLACEMENT TMDL PLC			
					4,337.10 751810 543000	Capital Outlay			
						CHECK	114226 TOTAL:		4,337.10
114227	03/03/2026	PRTD	2956	SOUTH COAST AIR QUALITY MGMT DIST	4660564	01/20/2026		030326	10,931.83
	Invoice: 4660564					ID# 94009 ANNUAL OP FEE RLV			
					10,931.83 751820 542000	Permits and Fees			
				SOUTH COAST AIR QUALITY MGMT DIST	4662277	01/20/2026		030326	170.94
	Invoice: 4662277					ID# 94009 FLAT FEE FY 25-26			
					170.94 751820 542000	Permits and Fees			
						CHECK	114227 TOTAL:		11,102.77
114228	03/03/2026	PRTD	30534	TAIT ENVIRONMENTAL SERVICES, INC.	968872	01/19/2026		030326	3,576.54
	Invoice: 968872					REPAIR 500-GAL RED DYE DIESEL TANK DISPNSR 1/13/26			
					3,576.54 701525 551500	Outside Services			
						CHECK	114228 TOTAL:		3,576.54
114229	03/03/2026	PRTD	20880	U.S. TELEPACIFIC CORP	189443345-0	02/16/2026		030326	10,699.40
	Invoice: 189443345-0					INTERNET SRV 2/16-3/15/26			
					1,818.90 101300 540520	Telephone			
					534.97 130100 540520	Telephone			
					8,238.54 701420 540520	Telephone			
					106.99 751820 540520	Telephone			
						CHECK	114229 TOTAL:		10,699.40
114230	03/03/2026	PRTD	3006	UNDERGROUND SERVICE ALERT	120260440	02/01/2026		030326	588.35
	Invoice: 120260440					269 TICKETS JANUARY 2026			
					588.35 101700 551500	Outside Services			
				UNDERGROUND SERVICE ALERT	25-262513	02/01/2026		030326	176.70
	Invoice: 25-262513					DIG SAFE FEE JANUARY 2026			
					176.70 101700 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	114230 TOTAL:		765.05
114231	03/03/2026	PRTD	2325	UNITED RENTALS, INC	251714060-007	02/16/2026		030326	4,189.16
	Invoice: 251714060-007					TRANSFER SWITCH RENTAL			
					4,189.16 751810 551500	Outside Services			
						CHECK	114231 TOTAL:		4,189.16
114232	03/03/2026	PRTD	2701	GRAINGER	9786942194	01/28/2026		030326	116.34
	Invoice: 9786942194					SOCKET BIT			
					116.34 701224 551000	Supplies/Material			
				GRAINGER	9789318319	01/29/2026		030326	1,597.42
	Invoice: 9789318319					SADDLEBOX			
					1,597.42 701525 551000	Supplies/Material			
				GRAINGER	9788688191	01/29/2026		030326	147.29
	Invoice: 9788688191					HEX BUSHING			
					147.29 101900 572500	Genl Supplies/Small Tools			
						CHECK	114232 TOTAL:		1,861.05
114233	03/03/2026	PRTD	31053	WESTAIR GASES & EQUIPMENT INC	0080721175	01/31/2026		030326	167.45
	Invoice: 0080721175					CYLINDER RENTAL JANUARY 2026			
					167.45 101100 541000	Supplies/Material			
						CHECK	114233 TOTAL:		167.45
114234	03/03/2026	PRTD	8510	WORK BOOT WAREHOUSE	2-2-1041056	02/06/2026		030326	275.00
	Invoice: 2-2-1041056					SAFETY FOOTWEAR T. POULOS			
					275.00 701521 623000	Safety Equipment			
				WORK BOOT WAREHOUSE	2-2-1041055	02/06/2026		030326	263.73
	Invoice: 2-2-1041055					SAFETY FOOTWEAR S. KRATOCHVIL			
					263.73 701525 623000	Safety Equipment			
						CHECK	114234 TOTAL:		538.73

A/P CASH DISBURSEMENTS JOURNAL

NUMBER OF CHECKS	47	*** CASH ACCOUNT TOTAL ***	366,335.38

	COUNT	AMOUNT
TOTAL PRINTED CHECKS	42	341,454.06
TOTAL EFT'S	5	24,881.32

*** GRAND TOTAL *** 366,335.38

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 9 12										
APP 751-200000						Accounts Payable			83,592.94	
	03/03/2026	030326	030326			AP CASH DISBURSEMENTS JOURNAL				
APP 999-100100						Cash-General				366,335.38
	03/03/2026	030326	030326			AP CASH DISBURSEMENTS JOURNAL				
APP 101-200000						Accounts Payable			216,769.55	
	03/03/2026	030326	030326			AP CASH DISBURSEMENTS JOURNAL				
APP 754-200000						Accounts Payable			3,999.53	
	03/03/2026	030326	030326			AP CASH DISBURSEMENTS JOURNAL				
APP 701-200000						Accounts Payable			37,961.87	
	03/03/2026	030326	030326			AP CASH DISBURSEMENTS JOURNAL				
APP 330-200000						Accounts Payable			18,158.75	
	03/03/2026	030326	030326			AP CASH DISBURSEMENTS JOURNAL				
APP 301-200000						Accounts Payable			5,276.10	
	03/03/2026	030326	030326			AP CASH DISBURSEMENTS JOURNAL				
APP 130-200000						Accounts Payable			576.64	
	03/03/2026	030326	030326			AP CASH DISBURSEMENTS JOURNAL				
						GENERAL LEDGER TOTAL			366,335.38	366,335.38
APP 999-207510						Due to/Due FromJPA Operations			83,592.94	
	03/03/2026	030326	030326							
APP 751-100100						Cash-General				83,592.94
	03/03/2026	030326	030326							
APP 999-201010						Due to/Due Frm Potable Wtr Ops			216,769.55	
	03/03/2026	030326	030326							
APP 101-100100						Cash-General				216,769.55
	03/03/2026	030326	030326							
APP 999-207540						Due to/Due FromJPA Replacement			3,999.53	
	03/03/2026	030326	030326							
APP 754-100100						Cash-General				3,999.53
	03/03/2026	030326	030326							
APP 999-207010						Due to/Due FromInternal Svs			37,961.87	
	03/03/2026	030326	030326							
APP 701-100100						Cash-General				37,961.87
	03/03/2026	030326	030326							
APP 999-203300						Due to/Due FrmSanitat Replace			18,158.75	
	03/03/2026	030326	030326							
APP 330-100100						Cash-General				18,158.75
	03/03/2026	030326	030326							
APP 999-203010						Due to/Due FrmPotable Wtr Repl			5,276.10	
	03/03/2026	030326	030326							
APP 301-100100						Cash-General				5,276.10
	03/03/2026	030326	030326							
APP 999-201300						Due to/Due FrmSanitation Ops			576.64	
	03/03/2026	030326	030326							
APP 130-100100						Cash-General				576.64

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

YEAR PER JNL SRC ACCOUNT	EFF DATE	JNL DESC	REF 1	REF 2	REF 3	ACCOUNT DESC LINE DESC	T	OB	DEBIT	CREDIT
	03/03/2026	030326	030326							
						SYSTEM GENERATED ENTRIES	TOTAL		366,335.38	366,335.38
						JOURNAL 2026/09/12	TOTAL		732,670.76	732,670.76

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	9	12	03/03/2026				
101-100100					Cash-General			216,769.55
101-200000					Accounts Payable		216,769.55	
						FUND TOTAL	216,769.55	216,769.55
130 Sanitation Operations	2026	9	12	03/03/2026				
130-100100					Cash-General			576.64
130-200000					Accounts Payable		576.64	
						FUND TOTAL	576.64	576.64
301 Potable Wtr Replacement Fund	2026	9	12	03/03/2026				
301-100100					Cash-General			5,276.10
301-200000					Accounts Payable		5,276.10	
						FUND TOTAL	5,276.10	5,276.10
330 Sanitation Replacement	2026	9	12	03/03/2026				
330-100100					Cash-General			18,158.75
330-200000					Accounts Payable		18,158.75	
						FUND TOTAL	18,158.75	18,158.75
701 Internal Service Fund	2026	9	12	03/03/2026				
701-100100					Cash-General			37,961.87
701-200000					Accounts Payable		37,961.87	
						FUND TOTAL	37,961.87	37,961.87
751 JPA Operations	2026	9	12	03/03/2026				
751-100100					Cash-General			83,592.94
751-200000					Accounts Payable		83,592.94	
						FUND TOTAL	83,592.94	83,592.94
754 JPA Replacement	2026	9	12	03/03/2026				
754-100100					Cash-General			3,999.53
754-200000					Accounts Payable		3,999.53	
						FUND TOTAL	3,999.53	3,999.53
999 Pooled Cash	2026	9	12	03/03/2026				
999-100100					Cash-General			366,335.38
999-201010					Due to/Due Frm Potable Wtr Ops		216,769.55	
999-201300					Due to/Due FrmSanitation Ops		576.64	
999-203010					Due to/Due FrmPotable Wtr Repl		5,276.10	
999-203300					Due to/Due FrmSanitat Replace		18,158.75	
999-207010					Due to/Due FromInternal Svs		37,961.87	

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND / ACCOUNT	YEAR	PER	JNL	EFF DATE	ACCOUNT DESCRIPTION	DEBIT	CREDIT
999-207510					Due to/Due FromJPA Operations	83,592.94	
999-207540					Due to/Due FromJPA Replacement	3,999.53	
					FUND TOTAL	366,335.38	366,335.38

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND		DUE TO	DUE FR
101	Potable Water Operations		216,769.55
130	Sanitation Operations		576.64
301	Potable Wtr Replacement Fund		5,276.10
330	Sanitation Replacement		18,158.75
701	Internal Service Fund		37,961.87
751	JPA Operations		83,592.94
754	JPA Replacement		3,999.53
999	Pooled Cash	366,335.38	
	TOTAL	366,335.38	366,335.38

** 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				
1100	03/10/2026	EFT	21660	ADVANCED INDUSTRIAL SERVICES, INC	RLS RTN/10757	09/30/2025		031026	79,206.87
Invoice: RLS RTN/10757						RELEASE RETENTION JED SMITH TANK NO.1 REHAB			
				7,117.50	301 201000	Contract Retainage			
				14,282.50	301 201000	Contract Retainage			
				20,117.37	301 201000	Contract Retainage			
				37,689.50	301 201000	Contract Retainage			
						CHECK	1100 TOTAL:		79,206.87
1101	03/10/2026	EFT	30314	ALLIANCE SOURCE TESTING LLC	INV6741476	02/23/2026		031026	1,450.00
Invoice: INV6741476						FEBRUARY 2026 SAMPLING			
				1,450.00	751820 571520	Other Laboratory Serv			
						CHECK	1101 TOTAL:		1,450.00
1102	03/10/2026	EFT	20779	SAND MATERIALS & AGGREGATE SALES,	94837	02/25/2026		031026	1,108.02
Invoice: 94837						18.28 TNS ROCK			
				1,108.02	101700 551000	Supplies/Material			
						CHECK	1102 TOTAL:		1,108.02
1103	03/10/2026	EFT	30536	UNIVAR SOLUTIONS INC.	53676559	02/13/2026		031026	9,539.20
Invoice: 53676559						46,120 LBS SODIUM BISULFITE			
				9,539.20	751810 541011	Sodium Bisulfite			
						CHECK	1103 TOTAL:		9,539.20
1104	03/10/2026	EFT	3035	VWR SCIENTIFIC	8821020967	02/18/2026		031026	205.42
Invoice: 8821020967						PIPETTE TIPS			
				205.42	701341 551000	Supplies/Material			
				VWR SCIENTIFIC	8821020966	02/18/2026		031026	1,861.15
Invoice: 8821020966						SEROLOGICAL PIPETS			
				1,861.15	701341 551000	Supplies/Material			
						CHECK	1104 TOTAL:		2,066.57
1105	03/10/2026	PRTD	2814	MCMASTER-CARR SUPPLY CO	60134449	02/19/2026		031026	47.72
Invoice: 60134449						ALLOY STEEL CUP-POINT SET SCREW			
				47.72	751820 551000	Supplies/Material			
				MCMASTER-CARR SUPPLY CO	60071592	02/18/2026		031026	135.06
Invoice: 60071592						ELECTRICAL SUPPLIES			
				135.06	751810 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	
								CHECK 1105 TOTAL:	182.78
114235	03/10/2026	PRTD	3077	AIRGAS USA, LLC	9168946148	02/03/2026		031026	113.17
	Invoice: 9168946148							REFILLED ARGON BOTTLES	
					113.17 701002 551500			Outside Services	
								CHECK 114235 TOTAL:	113.17
114236	03/10/2026	PRTD	30339	ALESHIRE & WYNDER, LLP	LVMWD/DECEMBER'25	12/31/2025		031026	40,962.50
	Invoice: LVMWD/DECEMBER'25							LEGAL SERVICES- DECEMBER 2025	
					8,782.00 701121 650000			Legal Services	
					21,426.80 754440 900000			Capital Asset Expenses	
					3,328.00 701121 687200			Outside Services	
					5,248.00 701121 650000			Legal Services	
					2,177.70 701122 687200			Outside Services	
								CHECK 114236 TOTAL:	40,962.50
114237	03/10/2026	PRTD	30339	ALESHIRE & WYNDER, LLP	LVMWD/JANUARY'26	01/31/2026		031026	24,847.60
	Invoice: LVMWD/JANUARY'26							LEGAL SERVICES- JANUARY 2026	
					9,045.00 701121 650000			Legal Services	
					1,584.00 701121 623500			Records Management	
					5,068.80 754440 900000			Capital Asset Expenses	
					607.20 701121 687200			Outside Services	
					237.60 701121 650000			Legal Services	
					4,022.20 701122 687200			Outside Services	
					4,282.80 701121 650000			Legal Services	
								CHECK 114237 TOTAL:	24,847.60
114238	03/10/2026	PRTD	30729	AMAZON CAPITAL SERVICES, INC.	1CFN-MP6H-KVVF	02/17/2026		031026	128.79
	Invoice: 1CFN-MP6H-KVVF							PENS & CONTACT TIP	
					128.79 701222 572500			Genl Supplies/Small Tools	
				AMAZON CAPITAL SERVICES, INC.	1RFY-1M1K-9XYC	02/17/2026		031026	136.09
	Invoice: 1RFY-1M1K-9XYC							WATERPROOF PH METER	
					136.09 751820 551000			Supplies/Material	
				AMAZON CAPITAL SERVICES, INC.	1FMX-MFYJ-Q3FH	02/20/2026		031026	65.76
	Invoice: 1FMX-MFYJ-Q3FH							MINI PRECISION SCREWDRIVER SET	
					65.76 701526 572500			Genl Supplies/Small Tools	
				AMAZON CAPITAL SERVICES, INC.	1HGH-CLCR-3NJK	02/19/2026		031026	13.06
	Invoice: 1HGH-CLCR-3NJK							BUSS FUSE 30A	
					13.06 751810 551000			Supplies/Material	
				AMAZON CAPITAL SERVICES, INC.	1HGH-CLCR-LTHG	02/20/2026		031026	17.93
	Invoice: 1HGH-CLCR-LTHG							GEL PENS	

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				
					17.93 701322 572500 Genl Supplies/Small Tools				
				AMAZON CAPITAL SERVICES, INC.	1VPT-3X1T-LTKC	02/17/2026	031026		526.78
				Invoice: 1VPT-3X1T-LTKC	REALTRUCK RACK FRAME				
					526.78 701525 551000 Supplies/Material				
				AMAZON CAPITAL SERVICES, INC.	13TJ-NJNM-FNG9	02/09/2026	031026		153.64
				Invoice: 13TJ-NJNM-FNG9	REALTRUCK BACKRACK HARDWARE KIT				
					153.64 701525 551000 Supplies/Material				
				AMAZON CAPITAL SERVICES, INC.	1FPH-YQQG-CGJM	02/09/2026	031026		-153.64
				Invoice: 1FPH-YQQG-CGJM	CR FOR INV#13TJ-NJNM-FNG9				
					-153.64 701525 551000 Supplies/Material				
				AMAZON CAPITAL SERVICES, INC.	1YNV-X7Y3-GF9G	02/13/2026	031026		49.26
				Invoice: 1YNV-X7Y3-GF9G	FLASH DRIVE & MINI USB CABLE				
					49.26 701526 572500 Genl Supplies/Small Tools				
				AMAZON CAPITAL SERVICES, INC.	1VKD-Q9NW-QFL4	02/13/2026	031026		-37.28
				Invoice: 1VKD-Q9NW-QFL4	CR FOR INV#1YNV-X7Y3-GF9G				
					-37.28 701526 572500 Genl Supplies/Small Tools				
				AMAZON CAPITAL SERVICES, INC.	1X9F-1YGL-JCNN	02/25/2026	031026		55.22
				Invoice: 1X9F-1YGL-JCNN	TAPE MEASURE & PROTRACTOR				
					55.22 701322 572500 Genl Supplies/Small Tools				
				AMAZON CAPITAL SERVICES, INC.	1TDG-39WH-VKGT	02/27/2026	031026		217.90
				Invoice: 1TDG-39WH-VKGT	PREMIUM FIRST AID KIT				
					217.90 701525 551000 Supplies/Material				
				AMAZON CAPITAL SERVICES, INC.	17N1-K3XY-HRTH	02/25/2026	031026		6.52
				Invoice: 17N1-K3XY-HRTH	SUN BLOCKING ANTI UV REFLECTIVE WINDOW TINT				
					6.52 101600 541000 Supplies/Material				
				AMAZON CAPITAL SERVICES, INC.	17RR-NKQV-KGLX	02/24/2026	031026		510.66
				Invoice: 17RR-NKQV-KGLX	HAND TOOLS KIT				
					510.66 701526 572500 Genl Supplies/Small Tools				
				AMAZON CAPITAL SERVICES, INC.	19P4-P6J6-HCHW	02/25/2026	031026		204.18
				Invoice: 19P4-P6J6-HCHW	FIRE EXTINGUISHER AND MEDICAL KIT				
					204.18 701525 551000 Supplies/Material				
							CHECK	114238 TOTAL:	1,894.87
114239	03/10/2026	PRTD	30535	BETTER BUSINESS PLANNING, INC	527032	02/25/2026	031026		1.55
				Invoice: 527032	TPA STREAM MARCH 2026				
					1.55 701125 622000 Outside Services				
				BETTER BUSINESS PLANNING, INC	527033	02/25/2026	031026		270.73
				Invoice: 527033	FSA DEBIT CARD MARCH 2026				
					270.73 701125 622000 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	114239	TOTAL:	272.28
114240	03/10/2026	PRTD	21392	OFFICE SOLUTIONS BUSINESS PRODUCT	I-20012887	01/08/2026	031026		1,468.39
	Invoice: I-20012887					CHAIRS FOR HR OFFICES			
					1,468.39 701001 551000	Supplies/Material			
						CHECK	114240	TOTAL:	1,468.39
114241	03/10/2026	PRTD	8091	BROWN AND CALDWELL	45594527	02/25/2026	031026		6,205.88
	Invoice: 45594527					RLV FLARE WASTE GAS FLARE 1/23-2/19/26			
					6,205.88 754440 900000	Capital Asset Expenses			
						CHECK	114241	TOTAL:	6,205.88
114242	03/10/2026	PRTD	5405	CALOLYMPIC GLOVE SAFETY	3004131	02/20/2026	2260135 031026		2,884.82
	Invoice: 3004131					PPE INVENTORY ITEMS			
					2,884.82 701 132000	Storeroom & Truck Inventory			
						CHECK	114242	TOTAL:	2,884.82
114243	03/10/2026	PRTD	2786	CEDAR VALLEY PLUMBING SUPPLY	280722	02/20/2026	031026		373.76
	Invoice: 280722					MATERIAL FOR PLUMBING SUPPLY LINE WAREHOUSE REPAIR			
					373.76 701002 551000	Supplies/Material			
						CHECK	114243	TOTAL:	373.76
114244	03/10/2026	PRTD	7257	DIRECTV, INC.	012036139X260223	02/23/2026	031026		20.00
	Invoice: 012036139X260223					TV ACCESS FEE 2/22-3/21/26			
					20.00 701002 551500	Outside Services			
						CHECK	114244	TOTAL:	20.00
114245	03/10/2026	PRTD	30486	EIDE BAILLY LLP	EI01993798	01/31/2026	031026		45,000.00
	Invoice: EI01993798					ENGINRNG/FACILITES/WATER OPS CNTRCT MGMT&PURCHASNG			
					45,000.00 701410 652200	Mgmt Consultant Fees			
						CHECK	114245	TOTAL:	45,000.00
114246	03/10/2026	PRTD	19397	FIRST CHOICE SERVICES (DAIOHS USA	SF-1084055	02/24/2026	031026		136.31
	Invoice: SF-1084055					FEBRUARY 2026 COFFEE SRVC - HQ			
					136.31 701410 620000	Forms, Supplies And Postage			
				FIRST CHOICE SERVICES (DAIOHS USA	SF-1084057	02/24/2026	031026		78.82
	Invoice: SF-1084057					FEBRUARY 2026 COFFEE SRVC - RLV			

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				
				78.82 701410 620000 Forms, Supplies And Postage					
				FIRST CHOICE SERVICES (DAIOHS USA	SF-1084058	02/24/2026	031026		74.46
Invoice: SF-1084058						FEBRUARY 2026 COFFEE SRVC - TAPIA			
				74.46 701410 620000 Forms, Supplies And Postage					
							CHECK	114246 TOTAL:	289.59
114247	03/10/2026	PRTD	6770	G.I. INDUSTRIES	3192894-0283-0	03/01/2026	031026		1,025.30
Invoice: 3192894-0283-0						DISP HQ & SHOP MARCH 2026			
				338.35 701001 551500 Outside Services					
				686.95 701002 551500 Outside Services					
				G.I. INDUSTRIES	3192893-0283-2	03/01/2026	031026		123.72
Invoice: 3192893-0283-2						DISP RLV FARM MARCH 2026			
				123.72 751830 551500 Outside Services					
							CHECK	114247 TOTAL:	1,149.02
114248	03/10/2026	PRTD	2705	HACH COMPANY	14878477	02/17/2026	031026		1,409.19
Invoice: 14878477						LAB SUPPLIES			
				1,409.19 101600 541000 Supplies/Material					
				HACH COMPANY	14879160	02/17/2026	031026		1,947.08
Invoice: 14879160						NEW PH METER FOR LAB SAMPLES			
				1,947.08 101600 541000 Supplies/Material					
							CHECK	114248 TOTAL:	3,356.27
114249	03/10/2026	PRTD	20823	INVOICE CLOUD INC.	964-2026_1	01/31/2026	031026		10,948.15
Invoice: 964-2026_1						INVOICE CLOUD FEE JANUARY 2026			
				10,948.15 701221 622000 Outside Services					
							CHECK	114249 TOTAL:	10,948.15
114250	03/10/2026	PRTD	31062	KSM PROMOTIONS, INC.	064769	02/25/2026	031026		97.00
Invoice: 064769						EMPLOYEE SWAG MONTHLY MAINTENANCE FEBRUARY 2026			
				97.00 701125 681500 Empl Recognition Functions					
							CHECK	114250 TOTAL:	97.00
114251	03/10/2026	PRTD	2611	LA DWP	5038501000/021926	02/19/2026	031026		46.00
Invoice: 5038501000/021926						RECTIFIER 1/20-2/19/26			
				46.00 101700 540510 Energy					

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	114251 TOTAL:		46.00
114252	03/10/2026	PRTD	31084	LEE & RO, INC	1287-01/02	02/23/2026	031026		19,107.79
	Invoice: 1287-01/02					TAPIA EFFLUENT P/S REHAB JANUARY 2026			
					19,107.79 754440 900000	Capital Asset Expenses			
				LEE & RO, INC	1287-02/02	02/23/2026	031026		5,359.08
	Invoice: 1287-02/02					RW P/S WEST REHAB JANUARY 2026			
					5,359.08 754440 900000	Capital Asset Expenses			
						CHECK	114252 TOTAL:		24,466.87
114253	03/10/2026	PRTD	2793	LISTER RENTS INC	178667.1.2	02/18/2026	031026		265.45
	Invoice: 178667.1.2					CONCRETE MIXER & RENTAL SLURRY			
					265.45 101700 551000	Supplies/Material			
				LISTER RENTS INC	178678.1.2	02/19/2026	031026		265.45
	Invoice: 178678.1.2					CONCRETE MIXER RENTAL & SLURRY			
					265.45 101700 551000	Supplies/Material			
						CHECK	114253 TOTAL:		530.90
114254	03/10/2026	PRTD	21294	MLC MANAGEMENT CONSULTING, INC.	2053	02/11/2026	031026		3,350.00
	Invoice: 2053					HAZARD MITIGATION PLAN			
					3,350.00 701310 552500	Consulting Services			
						CHECK	114254 TOTAL:		3,350.00
114255	03/10/2026	PRTD	30922	NORTH HILLS RECYCLING INC.	33455	02/25/2026	031026		1,731.86
	Invoice: 33455					120 1/4 INCH WOOD CHIP BULK SUPPLY			
					1,731.86 751820 541080	Amendment			
						CHECK	114255 TOTAL:		1,731.86
114256	03/10/2026	PRTD	2302	ODP BUSINESS SOLUTIONS LLC	451085942001	12/29/2025	031026		85.23
	Invoice: 451085942001					DESKPAD CALENDAR & CALENDAR REFILL			
					85.23 701322 572500	Genl Supplies/Small Tools			
				ODP BUSINESS SOLUTIONS LLC	459410453001	02/23/2026	031026		-85.23
	Invoice: 459410453001					CR INV#451085942001			
					-85.23 701322 572500	Genl Supplies/Small Tools			
				ODP BUSINESS SOLUTIONS LLC	458883756001	02/18/2026	031026		88.29
	Invoice: 458883756001					LABEL TAPE			
					88.29 751810 541000	Supplies/Material			
				ODP BUSINESS SOLUTIONS LLC	458885938001	02/18/2026	031026		24.10

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: 458885938001				BOOKEND STAND				
					24.10 751810 541000 Supplies/Material				
							CHECK	114256 TOTAL:	112.39
114257	03/10/2026	PRTD	18874	PACIFIC HYDROTECH CORPORATION	10655/PMT#13	02/19/2026		031026	925,423.50
	Invoice: 10655/PMT#13				CORNELL P/S IMPROVEMENTS JANUARY 2026				
					925,423.50 301440 900000 Capital Asset Expenses				
							CHECK	114257 TOTAL:	925,423.50
114258	03/10/2026	PRTD	30269	PAPER RECYCLING & SHREDDING SPECI	623506	02/24/2026		031026	89.00
	Invoice: 623506				ON SITE DOC SHREDDING 2/24/26				
					89.00 701121 623500 Records Management				
							CHECK	114258 TOTAL:	89.00
114259	03/10/2026	PRTD	30563	PENCCO, INC.	216329	02/11/2026		031026	14,570.84
	Invoice: 216329				49,100 LBS FERRIC CHLORIDE				
					14,570.84 751810 541050 Ferrous Chloride				
							CHECK	114259 TOTAL:	14,570.84
114260	03/10/2026	PRTD	30458	PIONEER AMERICAS, LLC (OLIN CORP)	900680194	02/17/2026		031026	9,112.08
	Invoice: 900680194				4,786 GAL SODIUM HYPOCHLORITE				
					9,112.08 751810 541014 Sodium Hypochlorite				
				PIONEER AMERICAS, LLC (OLIN CORP)	900681398	02/19/2026		031026	9,332.93
	Invoice: 900681398				4,902 GAL SODIUM HYPOCHLORITE				
					9,332.93 101600 541014 Sodium Hypochlorite				
				PIONEER AMERICAS, LLC (OLIN CORP)	900684075	02/26/2026		031026	9,241.55
	Invoice: 900684075				4,854 GAL SODIUM HYPOCHLORITE				
					9,241.55 751810 541014 Sodium Hypochlorite				
							CHECK	114260 TOTAL:	27,686.56
114261	03/10/2026	PRTD	4586	ROYAL INDUSTRIAL SOLUTIONS	9009-1066928	02/27/2026		031026	275.62
	Invoice: 9009-1066928				CORD ENDS BNR MIXER				
					275.62 751810 551000 Supplies/Material				
				ROYAL INDUSTRIAL SOLUTIONS	9009-1066854	02/25/2026		031026	882.42
	Invoice: 9009-1066854				WIRE FOR TANK MIXER				
					882.42 101100 551000 Supplies/Material				
				ROYAL INDUSTRIAL SOLUTIONS	9009-1066892	02/26/2026		031026	135.65
	Invoice: 9009-1066892				CONDUIT SUPPORT CLAMPS				

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				
					135.65 101100 551000 Supplies/Material				
				ROYAL INDUSTRIAL SOLUTIONS	9009-1066955	02/27/2026		031026	942.88
				Invoice: 9009-1066955		CABLE AND ENDS FOR BACK UP POWER			
					942.88 130100 551000 Supplies/Material				
						CHECK		114261 TOTAL:	2,236.57
114262	03/10/2026	PRTD	20583	RT LAWRENCE CORPORATION	50487	02/05/2026		031026	621.68
				Invoice: 50487		LOCKBOX FEE JANUARY 2026			
					621.68 701221 622000 Outside Services				
						CHECK		114262 TOTAL:	621.68
114263	03/10/2026	PRTD	16120	CONTROL LABORATORIES, INC	6020001	02/20/2026		031026	433.00
				Invoice: 6020001		FINISHED COMPOST - PACKAGE(SOLIDS) & COOLER RETURN			
					433.00 751820 571520 Other Laboratory Serv				
						CHECK		114263 TOTAL:	433.00
114264	03/10/2026	PRTD	30020	SOUTHERN CA EDISON	11884/022326	02/23/2026		031026	186,093.94
				Invoice: 11884/022326		DECEMBER-FEBRUARY 2026 BILLING CREDITS & NET USAGE			
					51.87 101100 540510 Energy				
					3,339.59 101101 540510 Energy				
					8,016.87 101102 540510 Energy				
					4,787.09 101104 540510 Energy				
					627.17 101105 540510 Energy				
					1,220.32 101107 540510 Energy				
					5,818.89 101108 540510 Energy				
					273.72 101109 540510 Energy				
					3,685.35 101110 540510 Energy				
					521.01 101112 540510 Energy				
					9,424.88 101113 540510 Energy				
					1,010.71 101114 540510 Energy				
					893.91 101115 540510 Energy				
					1,255.11 101116 540510 Energy				
					817.93 101117 540510 Energy				
					3,959.92 101118 540510 Energy				
					573.07 101119 540510 Energy				
					6,388.47 101120 540510 Energy				
					647.25 101121 540510 Energy				
					1,095.03 101122 540510 Energy				
					1,932.63 101123 540510 Energy				
					966.32 101124 540510 Energy				
					129.65 101202 540510 Energy				
					250.21 101204 540510 Energy				
					19.40 101209 540510 Energy				
					18.25 101211 540510 Energy				
					22.10 101212 540510 Energy				

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				
					28.20 101220 540510 Energy				
					11.05 101221 540510 Energy				
					29.44 101222 540510 Energy				
					31,753.77 101600 540510 Energy				
					28.08 101700 540510 Energy				
					695.81 102100 540510 Energy				
					16,271.12 130100 540510 Energy				
					11,453.47 701001 540510 Energy				
					21.52 701002 540510 Energy				
					37.39 701526 540510 Energy				
					565.16 751125 540510 Energy				
					23,690.63 751126 540510 Energy				
					156.74 751224 540510 Energy				
					107.65 751810 678800 District Sprayfield				
					96,593.16 751810 540510 Energy				
					20.79 751810 678900 005 Discharge				
					17.00 751820 540510 Energy				
					12,039.75 751830 540510 Energy				
					-50,835.34 751101 540511 Energy-Solar				
					-7,169.09 751127 540511 Energy-Solar				
					-7,169.08 751128 540511 Energy-Solar				
							CHECK	114264 TOTAL:	186,093.94
114265	03/10/2026	PRTD	2957	SOUTHERN CALIFORNIA EDISON (M-BIL	45743/013026	01/30/2026		031026	22,824.38
Invoice: 45743/013026						RW P/S 12/31/25-1/29/26 45,736 KH			
					11,412.19 751127 540511 Energy-Solar				
					11,412.19 751128 540511 Energy-Solar				
				SOUTHERN CALIFORNIA EDISON (M-BIL	57161/022426	02/24/2026		031026	52,760.26
Invoice: 57161/022426						RLV COMPOST PLNT 1/23-2/23/26 301,382 KH			
					52,760.26 751820 540510 Energy				
							CHECK	114265 TOTAL:	75,584.64
114266	03/10/2026	PRTD	2958	SOUTHERN CALIFORNIA GAS CO (M-bil	06871284003/022426	02/24/2026		031026	14.79
Invoice: 06871284003/022426						CONDUIT 1/21-2/20/26 0 THERMS			
					14.79 101101 540530 Gas				
							CHECK	114266 TOTAL:	14.79
114267	03/10/2026	PRTD	21137	TESLA, INC.	40543360	03/02/2026		031026	7,738.15
Invoice: 40543360						RW P/S FEBRUARY 2026 SOLAR 73,696.640 KWH			
					3,869.08 751127 540511 Energy-Solar				
					3,869.07 751128 540511 Energy-Solar				
							CHECK	114267 TOTAL:	7,738.15

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				
114268	03/10/2026	PRTD	30061	THE NELAC INSTITUTE	6963	02/23/2026		031026	400.00
Invoice: 6963						ANNL MBRSHP 4/22/26 - 4/22/27			
					400.00 701121 710500	Dues, Subsc & Memberships			
						CHECK	114268 TOTAL:		400.00
114269	03/10/2026	PRTD	30802	U.S. CAD HOLDINGS, LLC	INV76938	02/19/2026		031026	3,355.00
Invoice: INV76938						BLUEBEAM CORE ANNUAL & NEW USER SUBSCRIPTIONS			
					2,970.00 701420 621500	System Support and Maintenance			
					385.00 701420 621500	System Support and Maintenance			
						CHECK	114269 TOTAL:		3,355.00
114270	03/10/2026	PRTD	8764	UNITED RIBBON COMPANY, INC.	5597489	02/11/2026	2260139	031026	127.30
Invoice: 5597489						HR TONER			
					127.30 701125 620000	Forms, Supplies And Postage			
				UNITED RIBBON COMPANY, INC.	5598025	02/20/2026		031026	127.30
Invoice: 5598025						TONER			
					127.30 751840 620000	Forms, Supplies And Postage			
				UNITED RIBBON COMPANY, INC.	5598003	02/20/2026		031026	33.48
Invoice: 5598003						INK CARTRIDGE			
					33.48 701410 620000	Forms, Supplies And Postage			
						CHECK	114270 TOTAL:		288.08
114271	03/10/2026	PRTD	2325	UNITED RENTALS, INC	255687471-001	02/13/2026		031026	954.49
Invoice: 255687471-001						ELECTRICAL REPAIR RANCHO GOLF CART #708			
					954.49 751820 551500	Outside Services			
						CHECK	114271 TOTAL:		954.49
114272	03/10/2026	PRTD	2701	GRAINGER	9800671258	02/09/2026		031026	253.97
Invoice: 9800671258						MUSHROOM HEAD PUSH BUTTON			
					253.97 751810 551000	Supplies/Material			
				GRAINGER	9801292286	02/09/2026		031026	48.90
Invoice: 9801292286						TRASH CAN & DESK RECYCLING CONTAINER			
					48.90 701001 551000	Supplies/Material			
				GRAINGER	9801537425	02/09/2026		031026	88.85
Invoice: 9801537425						ODOR ELIMINATOR			
					88.85 101900 572500	Genl Supplies/Small Tools			
				GRAINGER	9801538639	02/09/2026		031026	98.12
Invoice: 9801538639						KEYED PADLOCK			

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				
					98.12 701526 572500 Genl Supplies/Small Tools				
				GRAINGER	9803037564	02/10/2026		031026	219.99
				Invoice: 9803037564		CAM & GROOVE ADAPTER & WATER HOSE ASSEMBLY			
					219.99 130100 551000 Supplies/Material				
				GRAINGER	9803037572	02/10/2026		031026	490.71
				Invoice: 9803037572		WELDING CURTAINS			
					490.71 701002 551000 Supplies/Material				
				GRAINGER	9804348531	02/11/2026		031026	194.81
				Invoice: 9804348531		INSECT KILLER & THREAD SEALANT TAPE			
					194.81 101900 572500 Genl Supplies/Small Tools				
				GRAINGER	9804668771	02/11/2026		031026	317.29
				Invoice: 9804668771		WIPER BLADE			
					317.29 701525 551000 Supplies/Material				
				GRAINGER	9824952965	02/27/2026		031026	223.94
				Invoice: 9824952965		ELECTRICAL SUPPLIES			
					223.94 301440 900000 Capital Asset Expenses				
							CHECK	114272 TOTAL:	1,936.58
114273	03/10/2026	PRTD	3025	WATER & SANITATION SRV./VENTURA C	3151710	02/25/2026		031026	24,714.77
				Invoice: 3151710		PURCHASED WATER 1/20-2/17/26			
					24,714.77 101001 510500 Purch Water-Ventura County				
							CHECK	114273 TOTAL:	24,714.77

NUMBER OF CHECKS 45 *** CASH ACCOUNT TOTAL *** 1,535,816.35

	COUNT	AMOUNT
TOTAL PRINTED CHECKS	40	1,442,445.69
TOTAL EFT'S	5	93,370.66

*** GRAND TOTAL *** 1,535,816.35

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 9 92									
APP 301-200000					Accounts Payable			1,004,854.31	
03/10/2026	031026	031026			AP CASH DISBURSEMENTS JOURNAL				
APP 999-100100					Cash-General				1,535,816.35
03/10/2026	031026	031026			AP CASH DISBURSEMENTS JOURNAL				
APP 751-200000					Accounts Payable			199,598.11	
03/10/2026	031026	031026			AP CASH DISBURSEMENTS JOURNAL				
APP 101-200000					Accounts Payable			130,009.19	
03/10/2026	031026	031026			AP CASH DISBURSEMENTS JOURNAL				
APP 701-200000					Accounts Payable			126,056.59	
03/10/2026	031026	031026			AP CASH DISBURSEMENTS JOURNAL				
APP 754-200000					Accounts Payable			57,168.35	
03/10/2026	031026	031026			AP CASH DISBURSEMENTS JOURNAL				
APP 130-200000					Accounts Payable			17,433.99	
03/10/2026	031026	031026			AP CASH DISBURSEMENTS JOURNAL				
APP 102-200000					Accounts Payable			695.81	
03/10/2026	031026	031026			AP CASH DISBURSEMENTS JOURNAL				
					GENERAL LEDGER TOTAL			1,535,816.35	1,535,816.35
APP 999-203010					Due to/Due FrmPotable Wtr Repl			1,004,854.31	
03/10/2026	031026	031026							
APP 301-100100					Cash-General				1,004,854.31
03/10/2026	031026	031026							
APP 999-207510					Due to/Due FromJPA Operations			199,598.11	
03/10/2026	031026	031026							
APP 751-100100					Cash-General				199,598.11
03/10/2026	031026	031026							
APP 999-201010					Due to/Due Frm Potable Wtr Ops			130,009.19	
03/10/2026	031026	031026							
APP 101-100100					Cash-General				130,009.19
03/10/2026	031026	031026							
APP 999-207010					Due to/Due FromInternal Svs			126,056.59	
03/10/2026	031026	031026							
APP 701-100100					Cash-General				126,056.59
03/10/2026	031026	031026							
APP 999-207540					Due to/Due FromJPA Replacement			57,168.35	
03/10/2026	031026	031026							
APP 754-100100					Cash-General				57,168.35
03/10/2026	031026	031026							
APP 999-201300					Due to/Due FrmSanitation Ops			17,433.99	
03/10/2026	031026	031026							
APP 130-100100					Cash-General				17,433.99
03/10/2026	031026	031026							
APP 999-201020					Due to/Due Frm Recl Wtr Ops			695.81	
03/10/2026	031026	031026							
APP 102-100100					Cash-General				695.81

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

YEAR PER JNL SRC ACCOUNT	EFF DATE	JNL DESC	REF 1	REF 2	REF 3	ACCOUNT DESC / LINE DESC	T	OB	DEBIT	CREDIT
	03/10/2026	031026	031026							
						SYSTEM GENERATED ENTRIES	TOTAL		1,535,816.35	1,535,816.35
						JOURNAL 2026/09/92	TOTAL		3,071,632.70	3,071,632.70

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	9	92	03/10/2026				
101-100100					Cash-General			130,009.19
101-200000					Accounts Payable		130,009.19	
						FUND TOTAL	130,009.19	130,009.19
102 Recycled Water Operations	2026	9	92	03/10/2026				
102-100100					Cash-General			695.81
102-200000					Accounts Payable		695.81	
						FUND TOTAL	695.81	695.81
130 Sanitation Operations	2026	9	92	03/10/2026				
130-100100					Cash-General			17,433.99
130-200000					Accounts Payable		17,433.99	
						FUND TOTAL	17,433.99	17,433.99
301 Potable Wtr Replacement Fund	2026	9	92	03/10/2026				
301-100100					Cash-General			1,004,854.31
301-200000					Accounts Payable		1,004,854.31	
						FUND TOTAL	1,004,854.31	1,004,854.31
701 Internal Service Fund	2026	9	92	03/10/2026				
701-100100					Cash-General			126,056.59
701-200000					Accounts Payable		126,056.59	
						FUND TOTAL	126,056.59	126,056.59
751 JPA Operations	2026	9	92	03/10/2026				
751-100100					Cash-General			199,598.11
751-200000					Accounts Payable		199,598.11	
						FUND TOTAL	199,598.11	199,598.11
754 JPA Replacement	2026	9	92	03/10/2026				
754-100100					Cash-General			57,168.35
754-200000					Accounts Payable		57,168.35	
						FUND TOTAL	57,168.35	57,168.35
999 Pooled Cash	2026	9	92	03/10/2026				
999-100100					Cash-General			1,535,816.35
999-201010					Due to/Due Frm Potable Wtr Ops		130,009.19	
999-201020					Due to/Due Frm Recl Wtr Ops		695.81	
999-201300					Due to/Due FrmSanitation Ops		17,433.99	
999-203010					Due to/Due FrmPotable Wtr Repl		1,004,854.31	
999-207010					Due to/Due FromInternal Svs		126,056.59	

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND / ACCOUNT	YEAR PER	JNL	EFF DATE	ACCOUNT DESCRIPTION	DEBIT	CREDIT
999-207510				Due to/Due FromJPA Operations	199,598.11	
999-207540				Due to/Due FromJPA Replacement	57,168.35	
				FUND TOTAL	1,535,816.35	1,535,816.35

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND		DUE TO	DUE FR
101	Potable Water Operations		130,009.19
102	Recycled Water Operations		695.81
130	Sanitation Operations		17,433.99
301	Potable Wtr Replacement Fund		1,004,854.31
701	Internal Service Fund		126,056.59
751	JPA Operations		199,598.11
754	JPA Replacement		57,168.35
999	Pooled Cash	1,535,816.35	
	TOTAL	1,535,816.35	1,535,816.35

** 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				
1108	03/17/2026	EFT	30119	ATS COMMUNICATIONS	02-2026	03/03/2026		031726	4,048.75
Invoice: 02-2026						FEBUARY 2026 CELL SITE MGMT			
				4,048.75 701310 552500		Consulting Services			
						CHECK	1108 TOTAL:		4,048.75
1109	03/17/2026	EFT	2654	FAMCON PIPE	S100174019.002	03/04/2026	2260148	031726	2,329.78
Invoice: S100174019.002						AVK HYDRANTS			
				2,329.78 701 132000		Storeroom & Truck Inventory			
				FAMCON PIPE	S100175491.001	03/03/2026		031726	898.76
Invoice: S100175491.001						PIPES			
				898.76 701 132000		Storeroom & Truck Inventory			
						CHECK	1109 TOTAL:		3,228.54
1110	03/17/2026	EFT	30670	SYRUS DEVERS ADVOCACY LLC	1147	03/01/2026		031726	6,500.00
Invoice: 1147						CLIENT SVCS FEBRUARY 2026			
				6,500.00 751840 651600		Other Professional Serv			
						CHECK	1110 TOTAL:		6,500.00
1111	03/17/2026	EFT	17645	TORO ENTERPRISES, INC.	19770	01/31/2026		031726	63,214.25
Invoice: 19770						29045 AGOURA RD-EMRGNCY RPAIR OF DMGED 15"SWR MAIN			
				63,214.25 101 117091		Damaged Sewer Trunk Line			
				TORO ENTERPRISES, INC.	19769	01/31/2026		031726	65,503.47
Invoice: 19769						24500 CALABAS. RD-EMRGNCY RPAIR 10" SWR FORCE MAIN			
				65,503.47 751800 551500		Outside Services			
						CHECK	1111 TOTAL:		128,717.72
1112	03/17/2026	EFT	30536	UNIVAR SOLUTIONS INC.	53702687	02/25/2026		031726	9,311.67
Invoice: 53702687						45,020 LBS SODIUM BISULFITE			
				9,311.67 751810 541011		Sodium Bisulfite			
						CHECK	1112 TOTAL:		9,311.67
1113	03/17/2026	EFT	3035	VWR SCIENTIFIC	8821083753	02/26/2026		031726	856.58
Invoice: 8821083753						GLOVES, FILTERS, & METHANOL			
				856.58 701341 551000		Supplies/Material			
						CHECK	1113 TOTAL:		856.58

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				
1114	03/17/2026	EFT	30388	WATERWISE CONSULTING, INC	9145	02/28/2026		031726	13,200.54
Invoice: 9145						CUSTOMER EVALS FEBRUARY 2026			
					13,200.54 101800 670900	Res. ET Irrigation Controller			
						CHECK	1114 TOTAL:		13,200.54
1115	03/17/2026	PRTD	2727	IDEXX LABORATORIES	3195056702	02/25/2026		031726	1,380.96
Invoice: 3195056702						QUANTI-TRAYS			
					1,380.96 701341 551000	Supplies/Material			
						CHECK	1115 TOTAL:		1,380.96
1116	03/17/2026	PRTD	2814	MCMASTER-CARR SUPPLY CO	60141492	02/19/2026		031726	566.72
Invoice: 60141492						ELECTRICAL SUPPLIES			
					566.72 101100 551000	Supplies/Material			
				MCMASTER-CARR SUPPLY CO	60873314	03/04/2026		031726	645.47
Invoice: 60873314						ELECTRICAL SUPPLIES			
					645.47 301440 900000	Capital Asset Expenses			
				MCMASTER-CARR SUPPLY CO	61191916	03/10/2026		031726	-194.16
Invoice: 61191916						CREDIT FOR INV#60788467			
					-194.16 101600 541000	Supplies/Material			
						CHECK	1116 TOTAL:		1,018.03
114274	03/17/2026	PRTD	19269	ACC BUSINESS	6007772113	02/11/2026		031726	1,030.64
Invoice: 6007772113						INTERNET SVCS 1/11 - 02/10/26			
					103.06 101600 540520	Telephone			
					103.06 751820 540520	Telephone			
					309.19 751810 540520	Telephone			
					257.66 701001 540520	Telephone			
					257.67 701002 540520	Telephone			
						CHECK	114274 TOTAL:		1,030.64
114275	03/17/2026	PRTD	30485	ADS CORP	22085-0226	02/14/2026		031726	3,698.00
Invoice: 22085-0226						SEWER FLOW MONITORING FEBRUARY 2026			
					924.50 130100 551500	Outside Services			
					2,773.50 751800 551500	Outside Services			
						CHECK	114275 TOTAL:		3,698.00
114276	03/17/2026	PRTD	20389	AIRGAS SPECIALTY PRODUCTS	9169624686	02/25/2026		031726	2,110.57
Invoice: 9169624686						8,901 LBS AMMONIUM HYDROXIDE			
					2,110.57 101600 541000	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	114276 TOTAL:		2,110.57
114277	03/17/2026	PRTD	3077	AIRGAS USA, LLC	5523267462	02/28/2026		031726	438.93
	Invoice: 5523267462					CYLINDER RENTAL FEBRUARY 2026			
					438.93 701002 551500	Outside Services			
						CHECK	114277 TOTAL:		438.93
114278	03/17/2026	PRTD	30729	AMAZON CAPITAL SERVICES, INC.	1F61-TJNT-DVNL	03/03/2026		031726	118.95
	Invoice: 1F61-TJNT-DVNL					CARBON STEEL SCREW EXCAVATORS			
					118.95 701322 572500	Genl Supplies/Small Tools			
				AMAZON CAPITAL SERVICES, INC.	1GMJ-MJQ7-DLFW	03/01/2026		031726	32.90
	Invoice: 1GMJ-MJQ7-DLFW					HYBRID AIR HOSE			
					32.90 101600 541000	Supplies/Material			
				AMAZON CAPITAL SERVICES, INC.	1R14-716R-JGQ4	03/02/2026		031726	174.27
	Invoice: 1R14-716R-JGQ4					SOIL & COMPOSTING DIAL THERMOMETER			
					174.27 751820 551000	Supplies/Material			
				AMAZON CAPITAL SERVICES, INC.	1M6C-J33T-1LR1	02/04/2026		031726	263.39
	Invoice: 1M6C-J33T-1LR1					BACKRACK ORIGINAL RACK FRAME			
					263.39 701525 551000	Supplies/Material			
				AMAZON CAPITAL SERVICES, INC.	1Y1N-XKND-F7T1	03/03/2026		031726	367.85
	Invoice: 1Y1N-XKND-F7T1					ETERNET CABLES, METAL SHELVES, TAPE, & LABELS			
					367.85 701420 543000	Capital Outlay			
				AMAZON CAPITAL SERVICES, INC.	1VL6-17RM-FD7F	02/26/2026		031726	925.91
	Invoice: 1VL6-17RM-FD7F					SOIL PIPE CUTTER			
					925.91 701521 572500	Genl Supplies/Small Tools			
				AMAZON CAPITAL SERVICES, INC.	1JQC-P96R-K6MW	02/24/2026		031726	-206.06
	Invoice: 1JQC-P96R-K6MW					CR FOR INV#1J11-FRYL-6K1W			
					-206.06 101900 572500	Genl Supplies/Small Tools			
						CHECK	114278 TOTAL:		1,677.21
114279	03/17/2026	PRTD	30711	ANIMAL & INSECT PEST MANAGEMENT I	255904	03/01/2026		031726	1,281.54
	Invoice: 255904					FEBRUARY 2026 PEST CONTROL SRV			
					513.91 701001 551500	Outside Services			
					168.49 751820 551500	Outside Services			
					107.72 751810 551500	Outside Services			
					41.91 101100 551500	Outside Services			
					449.51 101600 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	114279 TOTAL:		1,281.54
114280	03/17/2026	PRTD	2397	AQUATIC BIOASSAY & CONSULTING	LVS0226.0107	02/27/2026		031726	2,930.00
	Invoice: LVS0226.0107					CHRONIC TOXICITY TESTING			
					2,930.00 751810 571520	Other Laboratory Serv			
				AQUATIC BIOASSAY & CONSULTING	LVS0326.0119	03/03/2026		031726	7,510.00
	Invoice: LVS0326.0119					CHRONIC TOXICITY TESTING			
					7,510.00 751810 571520	Other Laboratory Serv			
						CHECK	114280 TOTAL:		10,440.00
114281	03/17/2026	PRTD	30607	AWARDCO, INC	INV94802	03/04/2026		031726	6,000.00
	Invoice: INV94802					EMPLOYEE RECOG SUB 4/21/26 - 4/20/27			
					6,000.00 701125 681500	Empl Recognition Functions			
						CHECK	114281 TOTAL:		6,000.00
114282	03/17/2026	PRTD	18071	SULLY-MILLER CONTRACTING CO.	4480294	02/28/2026		031726	390.76
	Invoice: 4480294					4.220 TONS AC 3/8 FINE			
					390.76 101700 551000	Supplies/Material			
						CHECK	114282 TOTAL:		390.76
114283	03/17/2026	PRTD	30950	BRADY WORLDWIDE INC	9361156759	02/19/2026		031726	1,920.49
	Invoice: 9361156759					I3300 PRINTER-C			
					1,920.49 701525 551000	Supplies/Material			
						CHECK	114283 TOTAL:		1,920.49
114284	03/17/2026	PRTD	2786	CEDAR VALLEY PLUMBING SUPPLY	280836	02/23/2026		031726	20.16
	Invoice: 280836					PLUMBING PARTS FOR WESTLAKE MEN'S RESTROOM SINK			
					20.16 101600 551000	Supplies/Material			
				CEDAR VALLEY PLUMBING SUPPLY	280846	02/23/2026		031726	38.98
	Invoice: 280846					PLUMBING PARTS FOR WESTLAKE MEN'S RESTROOM			
					38.98 101600 551000	Supplies/Material			
						CHECK	114284 TOTAL:		59.14
114285	03/17/2026	PRTD	19270	COMMUNICATIONS RELAY, LLC	61891	03/01/2026		031726	1,140.76
	Invoice: 61891					CASTRO PEAK MARCH 2026			
					1,140.76 701420 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	114285	TOTAL:	1,140.76
114286	03/17/2026	PRTD	15755	CORE & MAIN LP	X781393	10/14/2025	2260066	031726	29,377.54
Invoice: X781393						30" BUTTERFLY VALVE			
				29,377.54	301440 900000	Capital Asset Expenses			
						CHECK	114286	TOTAL:	29,377.54
114287	03/17/2026	PRTD	31131	DAVID KEMPTON	030526	03/05/2026		031726	125.00
Invoice: 030526						WATER METER INACTIVE			
				125.00	101900 714500	Claims Paid			
						CHECK	114287	TOTAL:	125.00
114288	03/17/2026	PRTD	3498	DEPT. OF WATER & POWER - CITY OF	GA83921	03/05/2026		031726	41.67
Invoice: GA83921						SEWER PERMIT 4/21-5/20/26			
				41.67	130100 542000	Permits and Fees			
						CHECK	114288	TOTAL:	41.67
114289	03/17/2026	PRTD	7257	DIRECTV, INC.	013810616X260306	03/06/2026		031726	10.00
Invoice: 013810616X260306						TV ACCESS FEE 3/5-4/4/26			
				10.00	101600 551500	Outside Services			
						CHECK	114289	TOTAL:	10.00
114290	03/17/2026	PRTD	8923	ENVIRONMENTAL EXPRESS, INC.	1000860485	02/25/2026		031726	279.24
Invoice: 1000860485						SODIUM SULFATE CARTRIDGES			
				279.24	701341 551000	Supplies/Material			
						CHECK	114290	TOTAL:	279.24
114291	03/17/2026	PRTD	19397	DAIOHS USA INC.	SF-1084056	02/24/2026		031726	130.90
Invoice: SF-1084056						FEBRUARY 2026 COFFEE SRVC -OPS			
				130.90	701410 620000	Forms, Supplies And Postage			
						CHECK	114291	TOTAL:	130.90
114292	03/17/2026	PRTD	2660	FISHER SCIENTIFIC	5753973	12/23/2025		031726	215.89
Invoice: 5753973						SETTLING CONES			
				215.89	701341 551000	Supplies/Material			
				FISHER SCIENTIFIC	5495310	12/10/2025		031726	-215.89
Invoice: 5495310						CR- INV#5753973			
				-215.89	701341 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				
				FISHER SCIENTIFIC	7022046	02/26/2026		031726	33.28
	Invoice: 7022046					SULFIDE REFILL #1			
					33.28 751810 541000	Supplies/Material			
				FISHER SCIENTIFIC	7054904	02/27/2026		031726	33.28
	Invoice: 7054904					SULFIDE REFILL #2			
					33.28 751810 541000	Supplies/Material			
						CHECK	114292 TOTAL:		66.56
114293	03/17/2026	PRTD	30967	FRIX TECHNOLOGIES LLC	26030301	03/03/2026		031726	1,650.00
	Invoice: 26030301					ELECTRONIC DOC MGMT FEBRUARY 2026			
					1,650.00 701420 651600	Other Professional Serv			
						CHECK	114293 TOTAL:		1,650.00
114294	03/17/2026	PRTD	6770	G.I. INDUSTRIES	3192892-0283-4	03/01/2026		031726	123.72
	Invoice: 3192892-0283-4					DISP RLV FARM MARCH 2026			
					123.72 751820 551800	Building Maintenance			
				G.I. INDUSTRIES	0056270-0283-4	03/01/2026		031726	1,018.40
	Invoice: 0056270-0283-4					DISP TAPIA MARCH 2026			
					1,018.40 751810 551800	Building Maintenance			
				G.I. INDUSTRIES	2587938-0283-0	03/01/2026		031726	422.59
	Invoice: 2587938-0283-0					DISP WLK MARCH 2026			
					422.59 101600 551800	Building Maintenance			
				G.I. INDUSTRIES	0056542-0283-6	03/02/2026		031726	795.77
	Invoice: 0056542-0283-6					DISP TAPIA RAGS 2/16-2/28/26			
					795.77 751810 541500	Outside Services			
				G.I. INDUSTRIES	3193028-0283-4	03/02/2026		031726	1,396.38
	Invoice: 3193028-0283-4					25 YD ROLLOFF DISP 2/16-2/28/26			
					1,396.38 701002 551500	Outside Services			
						CHECK	114294 TOTAL:		3,756.86
114295	03/17/2026	PRTD	30364	GEOTAB USA, INC.	IN477345	02/28/2026		031726	1,558.00
	Invoice: IN477345					PRO PLUS PLAN & SUPPORT FEBRUARY 2026			
					1,558.00 701526 622500	Radio Maintenance Expense			
						CHECK	114295 TOTAL:		1,558.00
114296	03/17/2026	PRTD	2705	HACH COMPANY	14892229	02/26/2026		031726	629.04
	Invoice: 14892229					COD VIALS, TURBIDITY STANDARD			
					629.04 701341 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				
						CHECK	114296 TOTAL:		629.04
114297	03/17/2026	PRTD	10102	INFOSEND INC.	305899	02/28/2026		031726	11,072.20
Invoice: 305899						1/30/26-2/25/26 BILL PAYMENT MAILING			
					11,072.20 701221 622000	Outside Services			
						CHECK	114297 TOTAL:		11,072.20
114298	03/17/2026	PRTD	20823	INVOICE CLOUD INC.	964-2026_2	02/28/2026		031726	10,540.32
Invoice: 964-2026_2						INVOICE CLOUD FEE FEBRUARY 2026			
					10,540.32 701221 622000	Outside Services			
						CHECK	114298 TOTAL:		10,540.32
114299	03/17/2026	PRTD	30034	JAMF SOFTWARE, LLC	90487909	01/16/2026		031726	5,000.00
Invoice: 90487909						JAMF RENEWAL 1/21/26-1/20/27			
					5,000.00 701420 621500	System Support and Maintenance			
						CHECK	114299 TOTAL:		5,000.00
114300	03/17/2026	PRTD	2547	LOS ANGELES COUNTY SANITATION DIS	48892/022826	02/28/2026		031726	1,002.30
Invoice: 48892/022826						TAPIA GRIT HAULING FEBRUARY 2026			
					1,002.30 751810 541500	Outside Services			
						CHECK	114300 TOTAL:		1,002.30
114301	03/17/2026	PRTD	2611	LA DWP	8512601000.030226	03/02/2026		031726	46.00
Invoice: 8512601000.030226						RECTIFIER 1/29-3/2/26			
					46.00 101700 540510	Energy			
						CHECK	114301 TOTAL:		46.00
114302	03/17/2026	PRTD	31004	MICHAEL J. FINGERT	271862-1	02/02/2026		031726	1,094.40
Invoice: 271862-1						MANWAY BOLTS FOR CALABASAS TANK			
					1,094.40 301440 900000	Capital Asset Expenses			
						CHECK	114302 TOTAL:		1,094.40
114303	03/17/2026	PRTD	2839	MOTION INDUSTRIES, INC.	CA22-00777661	02/10/2026		031726	424.10
Invoice: CA22-00777661						3/4 HORSEPOWER 120/240V MOTOR			
					424.10 751820 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				
						CHECK	114303 TOTAL:		424.10
114304	03/17/2026	PRTD	16754	NATURAL SURROUNDINGS	8913	03/01/2026		031726	375.00
	Invoice: 8913					MARCH 2026 INTERIOR PLANT CARE			
					375.00 701001 551500	Outside Services			
						CHECK	114304 TOTAL:		375.00
114305	03/17/2026	PRTD	2302	ODP BUSINESS SOLUTIONS LLC	455957753001	02/27/2026		031726	217.26
	Invoice: 455957753001					PAPER			
					217.26 701410 620000	Forms, Supplies And Postage			
				ODP BUSINESS SOLUTIONS LLC	459948894001	02/26/2026		031726	56.59
	Invoice: 459948894001					OD RED TOP			
					56.59 701510 620000	Forms, Supplies And Postage			
						CHECK	114305 TOTAL:		273.85
114306	03/17/2026	PRTD	31104	ON-SITE TECHNICAL SERVICES INCORP	11641	02/06/2026		031726	14,208.05
	Invoice: 11641					CALABASAS TANK INSPCTN 1/11-1/31/26			
					14,208.05 301440 900000	Capital Asset Expenses			
				ON-SITE TECHNICAL SERVICES INCORP	11655	03/04/2026		031726	9,997.85
	Invoice: 11655					CALABASAS TANK INSPCTN 2/1-2/14/26			
					9,997.85 301440 900000	Capital Asset Expenses			
						CHECK	114306 TOTAL:		24,205.90
114307	03/17/2026	PRTD	2585	J. HARRIS INDUSTRIAL WATER TREATM	2388775	02/28/2026		031726	35.88
	Invoice: 2388775					8" MIXED BED TANK RENTAL MARCH 2026			
					35.88 101600 541000	Supplies/Material			
				J. HARRIS INDUSTRIAL WATER TREATM	2388510	02/28/2026		031726	97.65
	Invoice: 2388510					14" POLISHER/MIXED BED TANK RENTAL MARCH 2026			
					97.65 701341 551500	Outside Services			
						CHECK	114307 TOTAL:		133.53
114308	03/17/2026	PRTD	2905	RAIN FOR RENT	2244450	02/27/2026		031726	290.97
	Invoice: 2244450					HIGHLINE RENTAL FOR GERMAINE DWP INERTIE			
					290.97 101100 541000	Supplies/Material			
						CHECK	114308 TOTAL:		290.97

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				
114309	03/17/2026	PRTD	30621	RINGCENTRAL, INC.	CD_001356943	02/19/2026		031726	4,438.38
	Invoice: CD_001356943					MONTHLY SUBSCRIPTION 2/17/26-3/16/26			
					4,438.38 701420 621500	System Support and Maintenance			
				RINGCENTRAL, INC.	CD_001372563	03/03/2026		031726	861.92
	Invoice: CD_001372563					CONTACT CENTER MARCH 2026			
					861.92 701420 621500	System Support and Maintenance			
						CHECK 114309 TOTAL:			5,300.30
114310	03/17/2026	PRTD	4586	ROYAL INDUSTRIAL SOLUTIONS	9009-1066750	02/20/2026		031726	19,748.70
	Invoice: 9009-1066750					ROCKWELL TECHCONNECT SUPPORT FOR DISTRICT PLCS			
					19,748.70 701420 621500	System Support and Maintenance			
				ROYAL INDUSTRIAL SOLUTIONS	9009-1067021	03/02/2026		031726	899.95
	Invoice: 9009-1067021					30A 4 PIN IEC CONNECTOR			
					899.95 751810 551000	Supplies/Material			
				ROYAL INDUSTRIAL SOLUTIONS	9009-1067096	03/03/2026		031726	15.22
	Invoice: 9009-1067096					1" ALUMINUM HUB			
					15.22 101100 551000	Supplies/Material			
						CHECK 114310 TOTAL:			20,663.87
114311	03/17/2026	PRTD	20583	RT LAWRENCE CORPORATION	50572	03/04/2026		031726	587.34
	Invoice: 50572					LOCKBOX FEE FEBRUARY 2026			
					587.34 701221 622000	Outside Services			
						CHECK 114311 TOTAL:			587.34
114312	03/17/2026	PRTD	2957	SOUTHERN CALIFORNIA EDISON (M-BIL	45743/030326	03/03/2026		031726	26,532.72
	Invoice: 45743/030326					RW P/S 1/30-3/2/26 48,291 KH			
					13,266.36 751127 540510	Energy			
					13,266.36 751128 540510	Energy			
						CHECK 114312 TOTAL:			26,532.72
114313	03/17/2026	PRTD	2958	SOUTHERN CALIFORNIA GAS CO (M-bil	06551212001/030626	03/06/2026		031726	14.89
	Invoice: 06551212001/030626					JBR P/S 2/2-3/4/26 0 THERMS			
					14.89 101109 540530	Gas			
						CHECK 114313 TOTAL:			14.89
114314	03/17/2026	PRTD	21119	SOUTHERN COMPUTER WAREHOUSE, INC.	INV00863092	02/26/2026	2260079	031726	14,560.00
	Invoice: INV00863092					130 OFFICE 365 BACKCUP 11/1/25-10/31/27			
					14,560.00 701420 543000	Capital Outlay			

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	114314 TOTAL:	14,560.00
114315	03/17/2026	PRTD	2969	SWRCB ACCOUNTING OFFICE	EA-LA-0226-1533	03/04/2026		031726	6,500.00
	Invoice: EA-LA-0226-1533					SWRCB ELAP ASSESSMENT FEE			
				6,500.00 701341 552000		Permits and Fees			
							CHECK	114315 TOTAL:	6,500.00
114316	03/17/2026	PRTD	30666	STRADLING YOCCA CARLSON & RAUTH	428320	02/12/2026		031726	14,937.00
	Invoice: 428320					BOND COUNSEL JANUARY 2026 (WIFIA LOAN)			
				14,937.00 754440 900000		Capital Asset Expenses			
							CHECK	114316 TOTAL:	14,937.00
114317	03/17/2026	PRTD	30414	SYNAGRO WEST, LLC	65606	02/05/2026		031726	21,030.30
	Invoice: 65606					BIOSOLIDS DISPOSAL JANUARY 2026			
				21,030.30 751820 543000		Capital Outlay			
							CHECK	114317 TOTAL:	21,030.30
114318	03/17/2026	PRTD	19135	TRANSUNION RISK AND ALTERNATIVE D	974571-202602-1	03/01/2026		031726	160.00
	Invoice: 974571-202602-1					SSN VERIFICATION FEBRUARY 2026			
				160.00 701221 620000		Forms, Supplies And Postage			
							CHECK	114318 TOTAL:	160.00
114319	03/17/2026	PRTD	30159	TRILLIUM HOLDCO LLC	528314	02/27/2026		031726	21,294.21
	Invoice: 528314					ELEC CHARGES SOLAR JANUARY 2026			
				21,294.21 751101 540511		Energy-Solar			
							CHECK	114319 TOTAL:	21,294.21
114320	03/17/2026	PRTD	2325	UNITED RENTALS, INC	255828569-001	02/27/2026		031726	1,888.29
	Invoice: 255828569-001					ELECTRICAL REPAIR GENERATOR #948			
				1,888.29 701525 551500		Outside Services			
							CHECK	114320 TOTAL:	1,888.29
114321	03/17/2026	PRTD	3023	VENCO WESTERN, INC.	0033069-IN	02/23/2026		031726	9,918.00
	Invoice: 0033069-IN					MORRISON TANK LANDSCAPE REMEDIAL			
				9,918.00 301440 900000		Capital Asset Expenses			

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	114321 TOTAL:		9,918.00
114322	03/17/2026	PRTD	30056	VERIZON WIRELESS	6137046041	02/26/2026		031726	576.21
	Invoice: 6137046041					WIRELESS SVC 1/27-2/26/26			
					576.21 701224 540520	Telephone			
						CHECK	114322 TOTAL:		576.21
114323	03/17/2026	PRTD	2701	GRAINGER	9804668748	02/11/2026		031726	1,118.04
	Invoice: 9804668748					WAREHOUSE SUPPLIES			
					1,118.04 101900 572500	Genl Supplies/Small Tools			
				GRAINGER	9806596921	02/12/2026		031726	634.50
	Invoice: 9806596921					ELECTRIC DRUM PUMP			
					634.50 701525 551000	Supplies/Material			
				GRAINGER	9806814498	02/12/2026		031726	234.84
	Invoice: 9806814498					LOAD CENTER, CIRCUIT BREAKER, & GROUND BAR KIT			
					234.84 101100 551000	Supplies/Material			
				GRAINGER	9807812962	02/13/2026		031726	417.72
	Invoice: 9807812962					ELECTRICAL SUPPLIES			
					417.72 101100 551000	Supplies/Material			
				GRAINGER	9807812970	02/13/2026		031726	22.39
	Invoice: 9807812970					DAKOTA THREADED RECEIVER			
					22.39 101100 551000	Supplies/Material			
				GRAINGER	9808037866	02/13/2026		031726	1,463.66
	Invoice: 9808037866					LIQUID TRANSFER TANK			
					1,463.66 701525 551000	Supplies/Material			
				GRAINGER	9811157545	02/17/2026		031726	312.30
	Invoice: 9811157545					STANDING HAND PAD			
					312.30 101900 572500	Genl Supplies/Small Tools			
				GRAINGER	9813076842	02/18/2026		031726	129.68
	Invoice: 9813076842					DEEP IMPACT SOCKET & ANALOG THERMOMETER			
					129.68 101900 572500	Genl Supplies/Small Tools			
						CHECK	114323 TOTAL:		4,333.13
114324	03/17/2026	PRTD	30823	WALSH CONSTRUCTION COMPANY II, LL	225177 #1	02/16/2026		031726	3,606,832.70
	Invoice: 225177 #1					PHASE 2 DESIGN BUILD SVCS PWP 2/12-2/16/26			
					3,606,832.70 754440 900000	Capital Asset Expenses			
				WALSH CONSTRUCTION COMPANY II, LL	10635/PMT#22	03/06/2026		031726	1,132,466.52
	Invoice: 10635/PMT#22					PHASE 1 DESIGN BUILD SVCS PWP FEBRUARY 2026			
					1,132,466.52 754440 900000	Capital Asset Expenses			

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 114324 TOTAL:	4,739,299.22
114325	03/17/2026	PRTD	3047	WESCO DISTRIBUTION, INC.	508094	02/23/2026		031726	3,619.13
	Invoice: 508094					WIRE FOR WOOLSEY TANK MIXER INSTALL			
					3,619.13 101100 551000	Supplies/Material			
								CHECK 114325 TOTAL:	3,619.13
114326	03/17/2026	PRTD	31053	WESTAIR GASES & EQUIPMENT INC	0080727942	02/28/2026		031726	152.60
	Invoice: 0080727942					CYLINDER RENTAL FEBRUARY 2026			
					152.60 101100 541000	Supplies/Material			
								CHECK 114326 TOTAL:	152.60
114327	03/17/2026	PRTD	16224	WORLD OIL LLC	I500-01339303	03/03/2026		031726	280.61
	Invoice: I500-01339303					USED OIL PICK UP			
					280.61 101600 551500	Outside Services			
				WORLD OIL LLC	I500-01342408	03/06/2026		031726	153.00
	Invoice: I500-01342408					USED OIL PICKUP			
					153.00 101600 551500	Outside Services			
								CHECK 114327 TOTAL:	433.61
114328	03/17/2026	PRTD	3068	YSI	1193601	03/04/2026	2260115	031726	899.95
	Invoice: 1193601					PH/ORP SENSOR ASSEMBLY			
					899.95 101600 541000	Supplies/Material			
								CHECK 114328 TOTAL:	899.95
					NUMBER OF CHECKS 64			*** CASH ACCOUNT TOTAL ***	5,183,234.98

	COUNT	AMOUNT
TOTAL PRINTED CHECKS	57	5,017,371.18
TOTAL EFT'S	7	165,863.80

*** GRAND TOTAL *** 5,183,234.98

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 9 230									
APP 701-200000					Accounts Payable			106,141.93	
03/17/2026	031726	031726			AP CASH DISBURSEMENTS JOURNAL				
APP 999-100100					Cash-General				5,183,234.98
03/17/2026	031726	031726			AP CASH DISBURSEMENTS JOURNAL				
APP 751-200000					Accounts Payable			168,579.40	
03/17/2026	031726	031726			AP CASH DISBURSEMENTS JOURNAL				
APP 101-200000					Accounts Payable			88,069.95	
03/17/2026	031726	031726			AP CASH DISBURSEMENTS JOURNAL				
APP 301-200000					Accounts Payable			65,241.31	
03/17/2026	031726	031726			AP CASH DISBURSEMENTS JOURNAL				
APP 130-200000					Accounts Payable			966.17	
03/17/2026	031726	031726			AP CASH DISBURSEMENTS JOURNAL				
APP 754-200000					Accounts Payable			4,754,236.22	
03/17/2026	031726	031726			AP CASH DISBURSEMENTS JOURNAL				
					GENERAL LEDGER TOTAL			5,183,234.98	5,183,234.98
APP 999-207010					Due to/Due FromInternal Svs			106,141.93	
03/17/2026	031726	031726							
APP 701-100100					Cash-General				106,141.93
03/17/2026	031726	031726							
APP 999-207510					Due to/Due FromJPA Operations			168,579.40	
03/17/2026	031726	031726							
APP 751-100100					Cash-General				168,579.40
03/17/2026	031726	031726							
APP 999-201010					Due to/Due Frm Potable Wtr Ops			88,069.95	
03/17/2026	031726	031726							
APP 101-100100					Cash-General				88,069.95
03/17/2026	031726	031726							
APP 999-203010					Due to/Due FrmPotable Wtr Repl			65,241.31	
03/17/2026	031726	031726							
APP 301-100100					Cash-General				65,241.31
03/17/2026	031726	031726							
APP 999-201300					Due to/Due FrmSanitation Ops			966.17	
03/17/2026	031726	031726							
APP 130-100100					Cash-General				966.17
03/17/2026	031726	031726							
APP 999-207540					Due to/Due FromJPA Replacement			4,754,236.22	
03/17/2026	031726	031726							
APP 754-100100					Cash-General				4,754,236.22
03/17/2026	031726	031726							
					SYSTEM GENERATED ENTRIES TOTAL			5,183,234.98	5,183,234.98
					JOURNAL 2026/09/230 TOTAL			10,366,469.96	10,366,469.96

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	9	230	03/17/2026				
101-100100					Cash-General			88,069.95
101-200000					Accounts Payable		88,069.95	
						FUND TOTAL	88,069.95	88,069.95
130 Sanitation Operations	2026	9	230	03/17/2026				
130-100100					Cash-General			966.17
130-200000					Accounts Payable		966.17	
						FUND TOTAL	966.17	966.17
301 Potable Wtr Replacement Fund	2026	9	230	03/17/2026				
301-100100					Cash-General			65,241.31
301-200000					Accounts Payable		65,241.31	
						FUND TOTAL	65,241.31	65,241.31
701 Internal Service Fund	2026	9	230	03/17/2026				
701-100100					Cash-General			106,141.93
701-200000					Accounts Payable		106,141.93	
						FUND TOTAL	106,141.93	106,141.93
751 JPA Operations	2026	9	230	03/17/2026				
751-100100					Cash-General			168,579.40
751-200000					Accounts Payable		168,579.40	
						FUND TOTAL	168,579.40	168,579.40
754 JPA Replacement	2026	9	230	03/17/2026				
754-100100					Cash-General			4,754,236.22
754-200000					Accounts Payable		4,754,236.22	
						FUND TOTAL	4,754,236.22	4,754,236.22
999 Pooled Cash	2026	9	230	03/17/2026				
999-100100					Cash-General			5,183,234.98
999-201010					Due to/Due Frm Potable Wtr Ops		88,069.95	
999-201300					Due to/Due FrmSanitation Ops		966.17	
999-203010					Due to/Due FrmPotable Wtr Repl		65,241.31	
999-207010					Due to/Due FromInternal Svs		106,141.93	
999-207510					Due to/Due FromJPA Operations		168,579.40	
999-207540					Due to/Due FromJPA Replacement		4,754,236.22	
						FUND TOTAL	5,183,234.98	5,183,234.98

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND		DUE TO	DUE FR
101	Potable Water Operations		88,069.95
130	Sanitation Operations		966.17
301	Potable Wtr Replacement Fund		65,241.31
701	Internal Service Fund		106,141.93
751	JPA Operations		168,579.40
754	JPA Replacement		4,754,236.22
999	Pooled Cash	5,183,234.98	
	TOTAL	5,183,234.98	5,183,234.98

** 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				
26182	03/03/2026	MANL	3352	LAS VIRGENES MUNICIPAL WATER DIST	5650581	02/12/2026		030326A	91.88
Invoice: 5650581						JED SMITH P/S 1/5-2/5/26			
					91.88 101108 540540	Water			
						CHECK	26182 TOTAL:		91.88
26183	03/03/2026	MANL	3352	LAS VIRGENES MUNICIPAL WATER DIST	5656349	02/12/2026		030326A	538.96
Invoice: 5656349						BLDG #2 1/5-2/5/26			
					538.96 701002 540540	Water			
						CHECK	26183 TOTAL:		538.96
26184	03/03/2026	MANL	3352	LAS VIRGENES MUNICIPAL WATER DIST	5656347	02/12/2026		030326A	1,268.60
Invoice: 5656347						BLDG #7 1/5-2/5/26			
					1,268.60 701002 540540	Water			
						CHECK	26184 TOTAL:		1,268.60
26185	03/03/2026	MANL	3352	LAS VIRGENES MUNICIPAL WATER DIST	5658688	02/12/2026		030326A	42.66
Invoice: 5658688						FIRE PRTCN #8 1/5-2/5/26			
					42.66 701001 540540	Water			
						CHECK	26185 TOTAL:		42.66
26186	03/03/2026	MANL	3352	LAS VIRGENES MUNICIPAL WATER DIST	5656955	02/12/2026		030326A	101.00
Invoice: 5656955						L/S #1 1/5-2/5/26			
					101.00 130100 540540	Water			
						CHECK	26186 TOTAL:		101.00
26187	03/03/2026	MANL	3352	LAS VIRGENES MUNICIPAL WATER DIST	5656731	02/12/2026		030326A	105.56
Invoice: 5656731						L/S #2 1/5-2/5/26			
					105.56 130100 540540	Water			
						CHECK	26187 TOTAL:		105.56
26188	03/03/2026	MANL	3352	LAS VIRGENES MUNICIPAL WATER DIST	5656063	02/12/2026		030326A	58.79
Invoice: 5656063						SOLAR LANDSCAPING 1/5-2/5/26			
					58.79 751820 540540	Water			
						CHECK	26188 TOTAL:		58.79
26189	03/03/2026	MANL	3352	LAS VIRGENES MUNICIPAL WATER DIST	5656341	02/12/2026		030326A	481.94
Invoice: 5656341						HQ BLDG #8 1/5-2/5/26			
					481.94 701001 540540	Water			

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	26189 TOTAL:		481.94
26190	03/03/2026	MANL	3352	LAS VIRGENES MUNICIPAL WATER DIST	5656334	02/12/2026		030326A	472.82
	Invoice: 5656334					HQ PWP/DEMO 1/5-2/5/26			
					472.82 751750 540540	Water			
						CHECK	26190 TOTAL:		472.82
26191	03/03/2026	MANL	3352	LAS VIRGENES MUNICIPAL WATER DIST	5656060	02/12/2026		030326A	646.11
	Invoice: 5656060					RLV 1/5-2/5/26			
					646.11 751820 540540	Water			
						CHECK	26191 TOTAL:		646.11
26192	03/03/2026	MANL	3352	LAS VIRGENES MUNICIPAL WATER DIST	5655989	02/12/2026		030326A	789.14
	Invoice: 5655989					TAPIA 1/5-2/5/26			
					789.14 751810 540540	Water			
						CHECK	26192 TOTAL:		789.14
26193	03/03/2026	MANL	3352	LAS VIRGENES MUNICIPAL WATER DIST	5656057	02/12/2026		030326A	278.42
	Invoice: 5656057					RLV FARM 1/5-2/5/26			
					278.42 751830 540540	Water			
						CHECK	26193 TOTAL:		278.42
					NUMBER OF CHECKS 12	*** CASH ACCOUNT TOTAL ***			4,875.88

	COUNT	AMOUNT
TOTAL MANUAL CHECKS	12	4,875.88

*** GRAND TOTAL *** 4,875.88

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 9 13										
APP 101-200000						Accounts Payable			91.88	
	03/03/2026	030326A	030326			AP CASH DISBURSEMENTS JOURNAL				
APP 999-100100						Cash-General				4,875.88
	03/03/2026	030326A	030326			AP CASH DISBURSEMENTS JOURNAL				
APP 701-200000						Accounts Payable			2,332.16	
	03/03/2026	030326A	030326			AP CASH DISBURSEMENTS JOURNAL				
APP 130-200000						Accounts Payable			206.56	
	03/03/2026	030326A	030326			AP CASH DISBURSEMENTS JOURNAL				
APP 751-200000						Accounts Payable			2,245.28	
	03/03/2026	030326A	030326			AP CASH DISBURSEMENTS JOURNAL				
						GENERAL LEDGER TOTAL			4,875.88	4,875.88
APP 999-201010						Due to/Due Frm Potable Wtr Ops			91.88	
	03/03/2026	030326A	030326							
APP 101-100100						Cash-General				91.88
	03/03/2026	030326A	030326							
APP 999-207010						Due to/Due FromInternal Svs			2,332.16	
	03/03/2026	030326A	030326							
APP 701-100100						Cash-General				2,332.16
	03/03/2026	030326A	030326							
APP 999-201300						Due to/Due FrmSanitation Ops			206.56	
	03/03/2026	030326A	030326							
APP 130-100100						Cash-General				206.56
	03/03/2026	030326A	030326							
APP 999-207510						Due to/Due FromJPA Operations			2,245.28	
	03/03/2026	030326A	030326							
APP 751-100100						Cash-General				2,245.28
	03/03/2026	030326A	030326							
						SYSTEM GENERATED ENTRIES TOTAL			4,875.88	4,875.88
						JOURNAL 2026/09/13 TOTAL			9,751.76	9,751.76

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	9	13	03/03/2026			
101-100100				Cash-General			91.88
101-200000				Accounts Payable		91.88	
					FUND TOTAL	91.88	91.88
130 Sanitation Operations	2026	9	13	03/03/2026			
130-100100				Cash-General			206.56
130-200000				Accounts Payable		206.56	
					FUND TOTAL	206.56	206.56
701 Internal Service Fund	2026	9	13	03/03/2026			
701-100100				Cash-General			2,332.16
701-200000				Accounts Payable		2,332.16	
					FUND TOTAL	2,332.16	2,332.16
751 JPA Operations	2026	9	13	03/03/2026			
751-100100				Cash-General			2,245.28
751-200000				Accounts Payable		2,245.28	
					FUND TOTAL	2,245.28	2,245.28
999 Pooled Cash	2026	9	13	03/03/2026			
999-100100				Cash-General			4,875.88
999-201010				Due to/Due Frm Potable Wtr Ops		91.88	
999-201300				Due to/Due FrmSanitation Ops		206.56	
999-207010				Due to/Due FromInternal Svs		2,332.16	
999-207510				Due to/Due FromJPA Operations		2,245.28	
					FUND TOTAL	4,875.88	4,875.88

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND		DUE TO	DUE FR
101	Potable Water Operations		91.88
130	Sanitation Operations		206.56
701	Internal Service Fund		2,332.16
751	JPA Operations		2,245.28
999	Pooled Cash	4,875.88	
	TOTAL	4,875.88	4,875.88

** 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				
26194	03/17/2026	MANL	30658	WELLS FARGO BANK	FEBRUARY 2026	03/07/2026		031726A	2,037.23
Invoice: FEBRUARY 2026					WFB CLIENT ANALYSIS FEE FEBRUARY 2026				
					2,037.23 101001 862500 Other Non-Operating Expense				
							CHECK	26194 TOTAL:	2,037.23
					NUMBER OF CHECKS 1		*** CASH ACCOUNT TOTAL ***		2,037.23

	COUNT	AMOUNT
TOTAL MANUAL CHECKS	1	2,037.23

*** GRAND TOTAL *** 2,037.23

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 9 231									
APP 101-200000					Accounts Payable			2,037.23	
03/17/2026	031726A	031726			AP CASH DISBURSEMENTS JOURNAL				
APP 999-100100					Cash-General				2,037.23
03/17/2026	031726A	031726			AP CASH DISBURSEMENTS JOURNAL				
					GENERAL LEDGER TOTAL			2,037.23	2,037.23
APP 999-201010					Due to/Due Frm Potable Wtr Ops			2,037.23	
03/17/2026	031726A	031726							
APP 101-100100					Cash-General				2,037.23
03/17/2026	031726A	031726							
					SYSTEM GENERATED ENTRIES TOTAL			2,037.23	2,037.23
					JOURNAL 2026/09/231 TOTAL			4,074.46	4,074.46

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	9	231	03/17/2026		
101-100100				Cash-General		2,037.23
101-200000				Accounts Payable	2,037.23	
				FUND TOTAL	2,037.23	2,037.23
999 Pooled Cash	2026	9	231	03/17/2026		
999-100100				Cash-General		2,037.23
999-201010				Due to/Due Frm Potable Wtr Ops	2,037.23	
				FUND TOTAL	2,037.23	2,037.23

A/P CASH DISBURSEMENTS JOURNAL

JOURNAL ENTRIES TO BE CREATED

FUND		DUE TO	DUE FR
101	Potable Water Operations		2,037.23
999	Pooled Cash	2,037.23	
	TOTAL	2,037.23	2,037.23

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

LAS VIRGENES MUNICIPAL WATER DISTRICT

4232 Las Virgenes Road, Calabasas CA 91302

MINUTES
SPECIAL MEETING

9:00 AM March 25, 2026

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was led by Eric Schlageter.

1. CALL TO ORDER AND ROLL CALL

The meeting was called to order at **8:00 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. Nancy Lawrence, Clerk of the Board, conducted the roll call.

Present:	Directors Gary Burns, Andy Coradeschi, Randy Levine, Jay Lewitt, and Len Polan. Director Levine exited the meeting at 9:30 a.m. Director Polan exited the meeting at 10:10 a.m.
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 Biran Richie, Director of Finance and Technology Nancy Lawrence, Clerk of the Board Keith Lemieux, District Counsel

2. APPROVAL OF AGENDA

Director Polan 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

Eric Schlageter, Director of Engineering and Facilities, introduced New Employee Jordan Hagen, Maintenance Mechanic I.

4. CONSENT CALENDAR

A **List of Demands: March 17, 2026:** Receive and File

B **Minutes: Regular Meeting March 3, 2026,** Approve

C **Monthly Cash and Investment Report: January 2026** Receive and the Monthly Cash and Investment Report for January 2026

D **Statement of Revenues, Expenses and Changes in Net Position: January 2026.** Receive and file the Statement of Revenues, Expenses and Changes in Net Position for the period ending on January 31, 2026

E **Calabasas Tank Rehabilitation Project: Final Acceptance**
Authorize the General Manager to execute a Notice of Completion and have the same recorded; and in the absence of claims from subcontractors and others, release the retention, in the amount of $11,339.35, 30-calendar days after filing the Notice of Completion for the Calabasas Tank Rehabilitation Project.

F **Supply and Delivery of Valves, Assembly Kits and Actuators: Award**
Authorize the General Manager to approve an initial one-year blanket purchase, in the amount of $100,000, with four one-year renewal options, for the supply and delivery of valves, assembly kits and actuators.

G **Annual Supply and Delivery of Ammonium Hydroxide: Change Order**
Authorize the General Manager to approve a change order with Airgas Specialty Products, Inc., increasing the annual amount by $19,310.55 for the current year and two subsequent one-year renewal options, for the supply and delivery of ammonium hydroxide.

H Update to Records Retention Schedule and Authorization of Records Destruction

Pass, approve, and adopt proposed Resolution No. 2665, approve an updated records retention schedule and authorize destruction of certain records.

RESOLUTION NO. 2665

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT ADOPTING A RECORDS RETENTION SCHEDULE AND AUTHORIZING DESTRUCTION OF CERTAIN DISTRICT RECORDS

(Reference is hereby made to Resolution No. 2665 on file in the District's Resolution Book and by this reference the same is incorporated herein.)

I Tapia Water Reclamation Facility 003 Outfall Rehabilitation Project: Contract Amendment

Authorize the General Manager to execute an amendment, in the amount of $4,384, to the professional services agreement with Rincon Consultants, Inc., for additional permitting support associated with the Tapia Water Reclamation Facility 003 Outfall Rehabilitation Project

J Local Agency Formation Commission: Nomination of Candidate for Independent Special District Voting Member

Nominate Director Gary Burns for consideration to fill an upcoming vacancy as the independent special district voting member on the Los Angeles County Local Agency Formation Commission.

Director Levine moved to approve consent items. Motion seconded by Director Polan. 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 Proclamation in Recognition of Government Finance Professionals Week

Director Coradeschi presented the Proclamation for Finance Professionals Week.

B MWD Representative Report

Director Lewitt reported that stage 1 of the Sepulveda feeder is underway and will be completed in July 2026 and will provide 30cfs pumping capacity. Stage 2 will expand the pumping capacity to 160 cfs and additional infrastructure could add 5% supply over 7 years. Projected rate increases potentially reduced from 9.5% to 5%-6% annually

C Public Affairs Update

Mischa Webley reported on The Lady Face Mountain Film Festival, WateReuse Symposium, International Women's Day Luncheon, and the Great Race Sponsorship. Fix-A-Leak Week launched with 900 views.

6. TREASURER

Director Levine provided the treasurers report including a $5 Million dollar check run with the largest payment going to Metropolitan for water purchase.

7. GENERAL MANAGER

A Annual Property and Liability Insurance: Renewal

Donald Patterson provided an overview for the Annual Property and Liability Insurance. David Shore of Tolman and Wiker provided the report that included a summary of insurance market trends, the District's risk profile, and a summary of potential policy changes including: increasing cyber security from $1 to $2 million, increasing earthquake coverage from $40 to $50 million and increasing liability coverage from $51 to $61 million.

Director Burns moved to approve Item 7A renewal with Mutual Partners/AIG for $3,695,236 including increased cyber coverage of $2 million, 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

8. FINANCE AND TECHNOGOLY

A Electronic Document Management System Implementation and Records Imaging Services: Award

Ivo Nkwenji, Information Systems Manager, presented the report and proposals

totaling $922,874 over three years. The project covers Laserfische Cloud Data Management System, Freedoc scanning/cataloging service of approximately 6.3 million images/files stored based on the district's retention schedule, and annual support.

Director Polan moved to approve consent items. Motion seconded by Director Buns. Motion carried 4-0 by the following vote:

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

9. NON-ACTION ITEMS

A. General Manager's Reports

(a) General Manager Dave Pedersen reported that he testified on SB1153 a bill for potable use and structure fire support. The budget workshop is scheduled to be held during the regular meeting of April 21, 2026. Form 700's are due April 1, 2026. Strategic Planning Workshop is March 31, 2026, and the Pure Water groundbreaking event is April 10, 2026.

(b) Follow-up Items

None

B. Directors' Comments and Report on Outside Meetings

Director Polan reported on the ACWA DC Conference
Director Burns reported on the Urban Water Institute Conference and Pure Water National
Director Lewitt reported on the WateReuse Symposium
Director Coradeschi reported on OceanWell and the Watereuse Symposium.

10 FUTURE AGENDA ITEMS

None.

11 ADJOURNMENT

Seeing no further business to come before the Board, the meeting was duly adjourned at **10.12 a.m.**

AGENDA ITEM NO. 4.C

DATE: April 7, 2026

TO: Board of Directors

FROM: Water Operations

SUBJECT: **Contract Laboratory Services: Increase and Extension**

This item is submitted for action by the Las Virgenes Municipal Water District Board, acting as the Administering Agent of the Las Virgenes-Triunfo Joint Powers Authority (JPA), in accordance with the JPA Agreement.

SUMMARY:

The contractual laboratory services agreement with Weck Laboratories, Inc., expired on January 18, 2026, with no remaining renewal options. An extension to the contract and increase is needed to cover the solicitation period for a new laboratory services contract. A request for proposals was posted to OpenGov from February 9, through February 27, 2026, for the solicitation of proposals from qualified contract laboratories. Award of a new contract is recommended on this agenda as a separate item.

Regulatory monitoring cannot be interrupted; therefore, a contract extension for Weck's on-going services is recommended through April 15, 2026. The extension would provide overlap with the execution of a new contract for laboratory services and any on-boarding procedures needed to set-up a new service provider. An increase to the contract is also recommended, in the amount of $87,900, to cover expenses through April 15, 2026.

RECOMMENDATION(S):

Authorize the General Manager to execute a contract amendment to extend the term of the professional services agreement with Weck Laboratories, Inc., from January 18 through April 15, 2026; and approve an increase, in the amount of $87,900, for contract laboratory services.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

Sufficient funds are available in the adopted Fiscal Year 2025-26 JPA Budget. No additional appropriation is required.

DISCUSSION:

The JPA operates and maintains a state-certified water quality laboratory at the Tapia Water Reclamation Facility; however, the on-site laboratory and staff do not maintain the necessary instrumentation, supplies or certifications required to analyze all constituents that are monitored for regulatory compliance. The services of a contract laboratory are necessary for analyses beyond in-house capabilities.

A contract laboratory is retained to analyze drinking water, wastewater, groundwater, surface water and stormwater samples, as needed. Below is a summary of the analytical services provided by a contract laboratory.

- Inorganic/Organic Analytes
- Metals
- Nutrients
- Ion Chromatography
- Disinfectants & Disinfectant By-Products
- Gas Chromatography
- Synthetic Organic Compounds
- Volatile/Semi-volatile Compounds
- General Physical Water Quality
- Bacteriological Analysis
- Radiochemistry
- Pesticides
- Unregulated Contaminant Monitoring Rule (UCMR)

The contract term with Weck Laboratories, Inc. (Weck), ran from January 19, 2021, through January 18, 2026. Throughout the contract term, Weck provided reliable analytical services, dependable bottle drop-off and sample pick-up, and timely data analyses and reporting.

Regulatory monitoring cannot be interrupted; therefore, a contract extension for Weck's on-going services is recommended through April 15, 2026. The extension would provide overlap with the execution of a new contract for laboratory services and any on-boarding procedures needed to set-up a new service provider. An increase to the contract is also recommended, in the amount of $87,900, to cover expenses through April 15, 2026.

GOALS:

Ensure Effective Utilization of the Public's Assets and Money

Prepared by: Karen Norman, Administrative Assistant

AGENDA ITEM NO. 4.D

DATE: April 7, 2026

TO: Board of Directors

FROM: Engineering and Facilities

SUBJECT: Hydraulic Modeling for Sewer and Potable Water Systems: Award

---

SUMMARY:

On January 8, 2026, the District issued a request for proposals (RFP) for updates to the District's existing potable water system hydraulic model and creation of a sewer system hydraulic model. The effort will include engineering services for hydraulic model preparation, data collection, calibration and report preparation. Proposals were received from seven well qualified firms: Black and Veatch, Burns & McDonnell; Carollo Engineers; Civiltech Engineering, Inc.; Hydraulic Analysis, Inc.; Kennedy/Jenks Consultants (KJ); and Woodard & Curran. Based on an evaluation of the proposals, staff recommends accepting the proposal from KJ, in the amount of $385,817, for these services.

RECOMMENDATION(S):

Accept the proposal from Kennedy/Jenks Consultants, Inc. and authorize the General Manager to execute a professional services agreement, in the amount of $385,817, for engineering services associated with developing a sewer system hydraulic model and updating the existing potable water system hydraulic model.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The cost of the work is $385,817. Sufficient funds for the work are available in the adopted Fiscal Year 2025-26 Budget and additional funds will be recommended in the proposed Fiscal Year 2026-27 Budget for the continuation of the contract. Costs for the potable water system modeling portion of the contract, in the amount of $130,533, will be charged to the Potable Water Enterprise (100% LVMWD), and costs for the sewer modeling portion of the contract, in

the amount of $255,284, will be charged to the JPA, which is allocated 70.6% to LVMWD and 29.4% to TWSD.

DISCUSSION:

Hydraulic models serve as critical tools for planning efforts, system evaluations, operational optimization and capital project development. The District currently utilizes a potable water system model that was last updated during the 2014 update to the Potable Water Master Plan prepared by Kennedy/Jenks Consultants. Since the 2014 updates, there have been modifications to the potable water system and its operation (including completion of numerous capital projects and pipeline replacements, new interconnections, and changing potable water demands), which are not captured within the current hydraulic model. Given the changes to the system and in anticipation of future operational changes due to the completion of the Pure Water Project Las Virgenes-Triunfo, an update to the existing model is necessary to maintain the model as a valuable planning and analysis tool. Additionally, this modeling effort will include fire flow analysis and development of fire flow asset tags that can be integrated into the District's Geographical Information System (GIS). This approach will provide cost savings to customers, efficiencies to staff and conserve potable water by mitigating the need to physically perform fire hydrant flow tests in the field.

The District/JPA's sewer system has not yet been modeled. Planning efforts for the Pure Water Project Las Virgenes-Triunfo will benefit from the development of a hydraulic model for the sewer trunk system. A hydraulic model for the sewer system would provide system-wide data on the available capacity of the sewer system to inform future planning efforts, including analysis for potential future implementation of stormwater diversion programs and planning for startup and testing of the Advanced Water Purification Facility (AWPF). During AWPF startup and testing large volumes of treated water will be discharged to the sewer system for a prolonged period of time; this model will help staff plan and prepare for these activities. Beyond the Pure Water Project Las Virgenes-Triunfo, the model will provide staff with a valuable planning tool that can be utilized in future capital project planning.

These efforts are strategically timed to align with the recent update to the District's recycled water model as part of the Pure Water Project Las Virgenes-Triunfo, meaning the three models will be relatively consistent in terms of their age and accuracy to current system conditions. There are also cost savings and staffing efficiencies realized by combining the potable water and sewer modeling efforts into a single effort. Additionally, the District is currently working towards procurement and implementation of an asset management system; potential future integration of these models into the asset management system will be a consideration during their development.

The District posted a request for proposals (RFP) capturing these elements on January 8, 2026. The scope of work includes project management and coordination, data collection and review, hydraulic model development, calibration (including flow monitoring as needed within the sewer system) and report preparation. Consultants were given the opportunity to propose on the two efforts (potable water and sewer) separately, and/or presenting cost savings that may be realized by awarding the two efforts. District staff held an optional pre-proposal meeting on January 21, 2026. Seven proposals were received: Black and Veatch; Burns & McDonnell; Carollo Engineers; Civiltech Engineering, Inc.; Hydraulic Analysis, Inc.; Kennedy/Jenks Consultants (KJ); and Woodard & Curran.

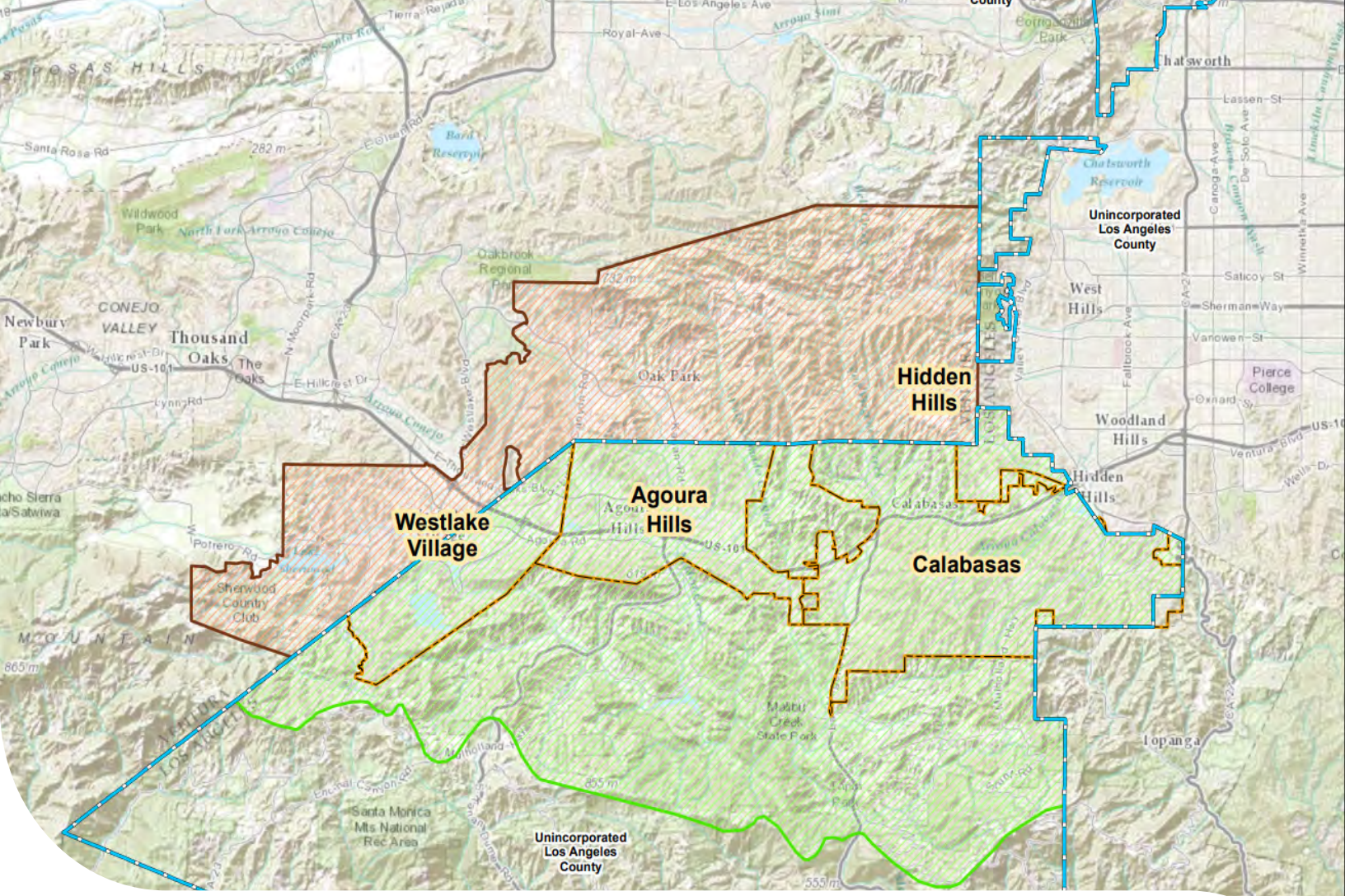
The seven firms are well-qualified to provide the engineering services required under this contract. Each proposal included the necessary elements as outlined in the RFP, with the majority of firms submitting scope for both the potable water and sewer portions of the RFP (with the exception of two proposals). Staff thoroughly evaluated the proposals based on their understanding of the scope, costs, expertise in the area of hydraulic modeling, personnel experience and qualifications, and project schedule and management. Staff determined KJ's approach to be the most efficient and cost effective. Furthermore, KJ presented the shortest overall project schedule, has familiarity with the existing potable water model (being the last firm to update it in 2014), and presented a substantial cost savings ($35,859) if the potable water and sewer efforts were to be combined. The total cost of the KJ proposal is $385,817.

GOALS:

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

Prepared by: Sarah Mathews, PE, Senior Engineer

ATTACHMENTS:
Proposal by Kennedy/Jenks Consultants



Las Virgenes Municipal Water District & Joint Powers Authority

Sewer System Hydraulic Model Creation and Potable Water Model Update

Kennedy Jenks

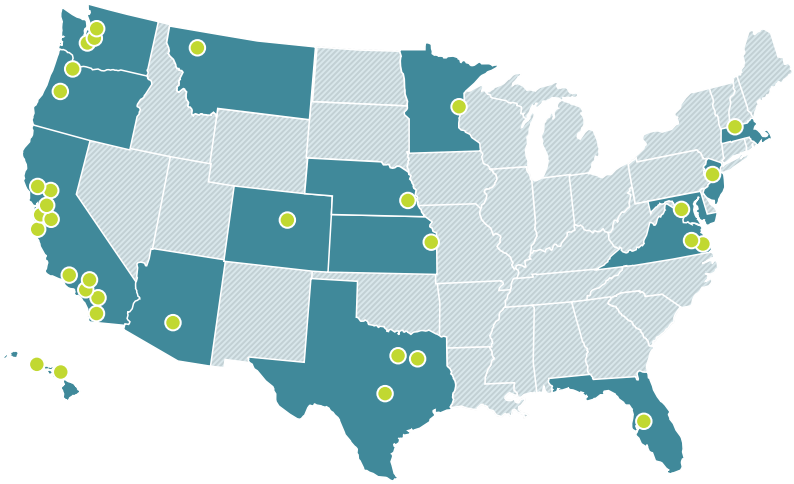
Original | February 6, 2026



National Firm with Responsive and Personalized Local Service

KJ is a full-service engineering firm that has earned a reputation for excellence and innovation nationwide. We deliver projects of all sizes and complexity while also providing personalized service. As an employee-owned firm, our primary focus is developing long-term relationships with our clients.

Founded initially as a sanitary engineering firm in 1919, KJ specializes in the planning, design, construction, condition assessment, and rehabilitation of water, wastewater, and stormwater infrastructure.



500+
Staff nationwide

34
Offices across 18 states

90%
Client retention rate

Name of Business/Company:
Kennedy/Jenks Consultants, Inc.

Date of the Proposal:
February 6, 2026

Proposals' Subject:
Sewer System Hydraulic Model Creation and Potable Water Model Update

Contact Person:
Adam Bugielski, PE

Address:
2775 North Ventura Rd, Suite 202
Oxnard, CA 93036

Telephone Number:
(661) 857 4745

E-Mail Address:
AdamBugielski@kennedyjenks.com

Table of Contents

A	Title Page	i
B	Table of Contents	ii
C	Transmittal Letter	1
D	Key Personnel	2
E	References	7
F	Qualifications and Experience	9
G	Detailed Proposal	11
H	Legal Issues and Potential Conflicts of Interest	25
I	Cost	iii
J	Contractual Services Agreement	25
Appendix	Resumes	

February 6, 2026

Sarah Matthews | Sr. Engineer
Las Virgenes Municipal Water District
4232 Las Virgenes Road, Calabasas, CA 91302-1994

Subject: Sewer System Hydraulic Model Creation and Potable Water Model Update

Dear Sarah,

The Las Virgenes Municipal Water District (District) and Joint Powers Authority (JPA) provides reliable, high-quality water and sewer services in a cost-effective and environmentally sensitive manner. Kennedy/Jenks Consultants, Inc. (KJ) is eager to support this mission on the Sewer System Hydraulic Model Creation and Potable Water Model Update with a forward-thinking, responsive team who offer the following:

Collaborative History with the District Offers Peace of Mind:

> Since 1987, KJ has enjoyed a successful working history with the District on planning, infrastructure, and facilities projects. We will act as an extension of your staff, building on our relationships through transparency, collaboration, and engineering excellence. KJ previously completed the District's 2014 potable, sanitation, and recycled water master plans, giving us continuity with your data, planning assumptions, and decision context. **This familiarity shortens onboarding, maintains alignment with your existing documents, and directs our effort to the areas that deliver the most value.**

Proven Modeling Approach to Meet Your Budget and Schedule Goals:

> KJ has provided modeling and engineering services to California municipalities and water/sanitation districts for over 100 years. Our approach mirrors the District's scope: kickoff and regular progress updates; internal QA/QC; data review and gap tracking; delivery of validated, GIS based potable and sewer models; development of required scenarios; calibration consistent with AWWA M32 using SCADA verification; and clear modeling reports with electronic model files, updated data/GIS layers, and fire flow tags for GIS and your future asset management system. **This disciplined process supports on-time, on-budget delivery through thoughtful staffing, proactive scheduling, and prompt responsiveness.**

A team known for stellar communication, clarity, and follow-through:

> **Paul Chau,** Technical Advisor, is a systems thinker and trusted advisor who brings steady, standards based judgment to complex, multi utility modeling and planning**. Salma Taha,** Sewer Modeling Lead, is a calibration specialist known for building reliable, GIS-driven trunk system models and translating results into clear capacity and Inflow & Infiltration (I&I) analysis and identification of problem areas. **Masoom Desai,** Potable Water Modeling Lead, is a detail-oriented modeler focused on demand representation, peaking factors, and control logic, resulting in models that reflect real-world operations. Our team brings extensive experience with local hydraulic systems, including work for Ventura, Thousand Oaks, Ventura County, Calleguas Metropoloton Water District, Santa Barbara, Triunfo WSD, and Oxnard. **The combination of our team's institutional knowledge, coupled with our past expertise, promotes effective communication and execution through all phases of your project.**

Thank you for the opportunity to present our experience, abilities, commitment, and resources in this RFP response. Please contact me at **(661) 857-4745** or **AdamBugielski@kennedyjenks.com**, should you have any questions regarding our submittal. This proposal is a firm and irrevocable offer for 90 days.

Very truly yours,
Kennedy/Jenks Consultants, Inc.



Adam Bugielski, PE
Project Manager



Jeff Savard, PE
Principal-In-Charge

Experienced Team to Provide Results

We have assembled a highly qualified, multidisciplinary team specifically structured to deliver accurate, defensible hydraulic models and clear, actionable findings for the District. Our team combines hands-on hydraulic modeling specialists, senior-level technical and QA/QC oversight, GIS-based data and asset management expertise, and seasoned project management to support the District's operational, regulatory, and planning needs.



Project Manager You Can Trust

Adam knows the District's preferences and standards and will serve as Project Manager, providing project coordination, communication, and drawing on his experience managing complex water and wastewater modeling and planning projects for California agencies.



Quality from Day One

David and **Paul** will provide senior-level technical oversight and QA/QC, drawing on extensive experience in hydraulic modeling and master planning to apply lessons learned to provide technical guidance, mitigate potential roadblocks, and help identify a clear path forward that delivers best-value solutions for the District.



Modeling Expertise

Salma and **Masoom** will lead the development and calibration of sewer and potable water models, bringing extensive experience in GIS-based modeling, demand and flow analysis, scenario development, and system performance evaluation.

Las Virgenes Municipal Water District/Joint Powers Authority

Principal-In-Charge
Jeff Savard, PE

Project Manager
▶ Adam Bugeilski, PE

Technical Advisor
▶ Paul Chau, PE

QA/QC
▶ David Ferguson, PhD, PE, BCEE

Sewer Modeling Team	Potable Water Modeling Team
Modeling Lead ▶ Salma Taha	**Modeling Lead** ▶ Masoom Desai, EIT
Staff Engineer Joette Jackson, PE	**Staff Engineer** Marco Pardo Rojas, EIT

Technical Support

Asset Management	GIS Specialist	Flow Monitoring	Fire Flow Analysis
▶ Scott Lehman, IAM	▶ Jennifer O'Brien	[1] Kevin Krajewski, PE	[2] Davis Fire Protection

LEGEND ▶ Key Personnel [1] KFlow [2] Davis Fire Protection

Why This Team?

- **Collaborative & Communicative**
- **Technical Expertise & Proven Strategies**
- **Familiarity with the District**



Adam Bugielski, PE Project Manager

Adam, is a Project Manager with 14 years of experience delivering water and wastewater infrastructure projects. His work includes hydraulic modeling, program management, and inter-agency coordination. He has served as a program manager for multiple cities which gives him a strong understanding of agency needs, priorities, and operational perspectives. Adam has managed potable water and sewer projects involving pump stations, interconnections, treatment facility upgrades, and system analyses for agencies throughout Ventura County and California.

Relevant Experience

- **Casitas-Ventura-Calleguas Interconnect Hydraulic Analysis,** City of Ventura, CA | *Project Manager*
- **Regional State Water Interconnection,** Ventura Water, Ventura, CA | *Project Manager*
- **Hydraulic Model Management,** City of Ventura, CA | *Project Manager*

Years of Experience
14

Education

BS, Civil Engineering, California State University, Northridge, CA, 2013

Registration

Professional Engineer - Civil - California (89065)

WHY ADAM:
Adam brings extensive experience in water and wastewater system modeling, along with exceptional communication and project management capabilities that directly support the District's priorities.



Paul Chau, PE Technical Advisor

Paul is a Technical Advisor with 19 years of experience leading hydraulic modeling and master planning efforts for potable water, recycled water, and wastewater systems throughout California. He leads KJ's Master Planning Group and has directed numerous projects involving hydraulic model development, calibration, scenario evaluation, flow monitoring integration, and the creation of GIS-based planning tools. Paul has delivered sewer and potable water master plans, wastewater hydraulic models, recycled water system evaluations, groundwater recharge feasibility studies, and system-wide capacity analyses for agencies.

Relevant Experience

- **Hydraulic Model Update & Water Master Plan,** City of Thousand Oaks, CA | *Technical Advisor*
- **Wastewater Master Plan Update,** City of Thousand Oaks, CA | *Project Manager*
- **Sewer and Potable Water Master Plan,** City of Carlsbad, CA | *Project Director*

Years of Experience
19

Education

BS, Environmental Engineering and Science, University of California, Los Angeles, 2006

MS, Civil and Environmental Engineering, Stanford University, 2007

Registration

Professional Engineer - Civil - California (75784)

WHY PAUL:
Paul brings deep hydraulic modeling and master planning expertise. He has led potable water and sewer model development, calibration and system evaluations for the District and regional Ventura County agencies.



David Ferguson, PhD, PE, BCEE QA/QC

David provides QA/QC for water and wastewater planning and modeling projects, bringing 46 years of experience in water supply infrastructure, master planning, and system evaluations. His QA/QC role includes technical review of potable water, recycled water, and sewer master plans; evaluation of hydraulic analyses; and oversight of modeling-based planning efforts used to identify system deficiencies and support capital improvement programs.

Relevant Experience

- **Wastewater Master Plan,** Crescenta Valley Municipal Water District, La Crescenta, CA | *QA/QC Study Reviewer*
- **Focused Water System Master Plan,** City of Riverside, CA | *Technical/QA/QC*
- **Urban Water Master Plan Update,** City of Thousand Oaks, CA | *QA/QC*

Years of Experience
46

Education

BS, Civil Engineering, University of Massachusetts, 1980

PHD, Executive Management, Claremont Graduate University, 1993

Registration

Professional Engineer - Civil - California (34626)

WHY DAVID: David brings seasoned QA/QC judgment that strengthens modeling assumptions, clarifies complex analyses, and results in recommendations that hold up under agency review. His technical insight directly supports reliable, high-quality planning outcomes.



Salma Taha Sewer Modeling Lead

Salma serves as Sewer Modeling Lead with 14 years of experience providing hydraulic modeling for water and wastewater systems in support of master plans, capacity assessments, and long-range planning efforts. Her work focuses on development, calibration, and optimization of sewer and water distribution system models using platforms such as Aquatwin Sewer, PCSWMM, InfoSWMM, InfoWorks ICM, InfoWater Pro, WaterGEMS, and SewerGEMS. Salma's experience includes building models from GIS data, updating and calibrating existing hydraulic models, I&I evaluations, evaluating trunk and interceptor capacity, and performing fire flow and pressure analyses for potable water systems.

Relevant Experience

- **Hydraulic Model Update & Water Master Plan,** City of Thousand Oaks, CA | *Sewer Modeling Lead*
- **2023 Wastewater Master Plan,** Crescenta Valley Water District, La Crescenta, CA | *Hydraulic Modeler*
- **Sewer and Potable Water Master Plan,** City of Carlsbad, CA | *Sewer Modeling Lead*

Years of Experience
14

Education
BS, Civil Engineering, American University of Sharjah, 2010

WHY SALMA: Salma brings deep hands-on experience leading sewer hydraulic model development and calibration for master plans, including dry- and wet-weather simulations, I&I evaluations, and GIS-based capacity analyses, making her ideally suited to deliver the District's modeling objectives.



Masoom Desai, EIT Potable Water Modeling Lead

Masoom serves as Potable Water Modeling Lead with five years of experience specializing in hydraulic modeling, water system planning, and feasibility studies. Her work focuses on developing, updating, and calibrating hydraulic models to support master plans, system evaluations, and fire flow analyses. Masoom has led potable water model builds using GIS geodatabases, updated demand and supply projections, refined peaking factors, and incorporated pump and valve operational controls to represent system performance accurately.

Relevant Experience

- **Potable Water Hydraulic Model Update,** City of Thousand Oaks, CA | *Project Manager*
- **Sewer and Potable Water Master Plan,** City of Carlsbad, CA | *Water Master Plan Lead*
- **Potable Hydraulic Model Phase 1 and 2,** City of Lakewood, CA | *Project Manager*

Years of Experience
5

Education
BS, Civil Engineering, Birla Institute of Technology and Science, Pilani, 2017

MS, Biological Sciences, Birla Institute of Technology and Science, Pilani, 2017

MS, Environmental Engineering, Stanford University, 2020

Registration
Engineer-in-Training (178394)

WHY MASOOM: Masoom brings hands-on expertise leading hydraulic model development and calibration using GIS-based data, demand forecasting, operational controls, and fire-flow simulations to deliver practical, data-driven modeling results that directly support system planning and decision-making.



Scott Lehman, IAM Asset Management

Scott provides experienced, practical asset management guidance to support alignment between GIS data, hydraulic models, and future asset management system needs, helping reduce integration risk while keeping the focus on delivering reliable modeling outcomes. Scott will provide advisory support related to asset management considerations associated with updating the District's potable water hydraulic model and development of a new sewer hydraulic model.

Relevant Experience

- **Enterprise Asset Management Implementation,** City of San Diego, CA | *Asset Management*
- **CMMS Needs Assessment, Zone 7 Water Agency, Livermore, CA** | *CMMS Implementation Support/ QA/QC*
- **Asset Risk and Water Master Plan Development,** Newport Beach Utilities Department, Newport Beach, CA | *Asset Management*

Years of Experience
24

Education
BA, Geography & Anthropology, University of California, Santa Barbara, 1999

Certification
Institute of Asset Management Certificate, Institute of Asset Management (6120657)

WHY SCOTT: Scott provides experienced, practical asset management guidance to support alignment between GIS data, hydraulic models, and future asset management system needs that helps reduce integration risk while keeping the focus on delivering reliable modeling outcomes.



Years of Experience
13

Education

BA, Geography and Environmental Studies, University of Colorado Colorado Springs, 2011

MS, GIS, University of Denver, 2015

Jennifer O'Brien GIS Specialist

Jennifer serves as a GIS Specialist with 13 years of experience supporting water, wastewater, and infrastructure projects through enterprise GIS configuration, data integration, and advanced visualization. Her work focuses on developing and maintaining GIS environments that support planning, modeling, and asset-based decision-making, including the integration of GIS, CAD, and field-collected data.

Relevant Experience

- **Hydraulic Model Update & Water Master Plan,** City of Thousand Oaks, CA | *GIS Specialist*
- **Wastewater Master Plan Update,** City of Thousand Oaks, CA | *GIS Specialist*
- **Sewer and Potable Water Master Plan,** City of Carlsbad, CA | *GIS Specialist*

WHY JENNIFER:
Jennifer provides the GIS expertise needed to support reliable hydraulic modeling, asset data coordination, and future AMS compatibility by making sure network and asset datasets are accurate, well-structured, and GIS-based from the outset.

Strengthened by Proven Local Subconsultant Expertise

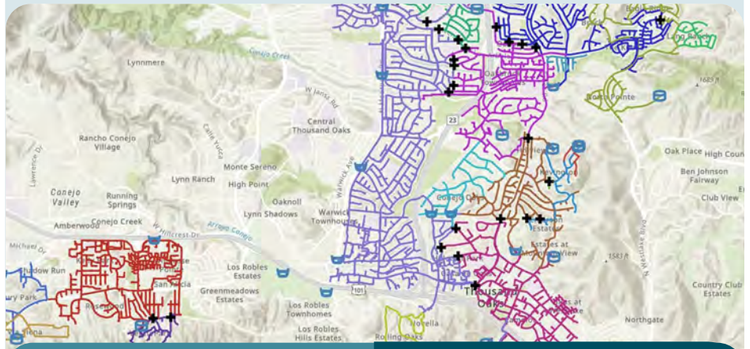
Our team is further strengthened by the support of our trusted subconsultants, KFlow and Davis Fire Protection, both of whom bring extensive local experience and proven technical expertise. Their deep understanding of the region's systems, standards, and project requirements enhances our ability to deliver responsive, well-coordinated, and high-quality solutions. **Figure 1** shows examples of K-Flow's experise and services.





Figure 1. Photos provided by K-Flow. **LEFT:** Confined space entry for large diameter flow meter instillation. **RIGHT:** Example of flow meter installation for sewer monitoring.

Thousand Oaks Water/Wastewater Master Plan
City of Thousand Oaks, CA



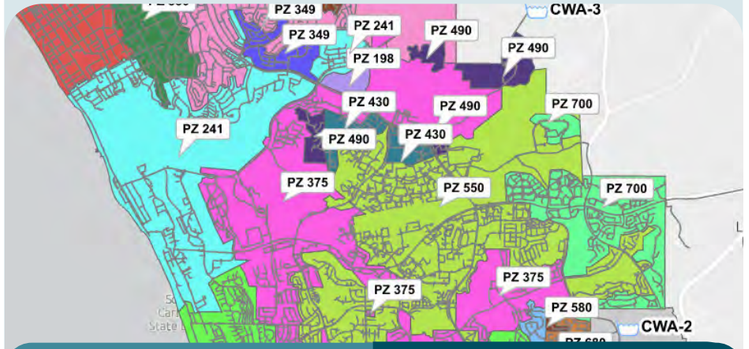
Summary of Project	Key Results Achieved
Developed an AquaTwin Sewer hydraulic model based on GIS data. Calibrated the sewer hydraulic model utilizing flow meter data.	Utilized hydraulic model to correct errors in City's GIS database.
Developed sewershed-specific diurnal patterns and RDII RTK hydrographs; assessed capacity constraints and performed I&I analysis with sewershed ranking.	Utilized recent flow meter data to calibrate model & historical flow data to define design storm scenario for model system analysis.
Created an AquaTwin Water hydraulic model based on GIS data.	Model identification system allows for easy transfer of data between GIS & hydraulic model.
Calibrated well & booster pump operations using pump curves & SCADA data.	Created a system-wide hourly diurnal demand pattern & successfully transitioned the model to EPS operation.

Client Reference
Shamir Shahamiri
2100 Thousand Oaks Blvd.
Thousand Oaks, CA 91362
(805) 449-2400
Sshahamiri@toaks.org

Cost: $980,000

Relevant Key Staff
David Ferguson, Paul Chau, Jeff Savard, Masoom Desai, Salma Taha, Jennifer O'Brien

Water and Sewer Master Plan
City of Carlsbad, CA



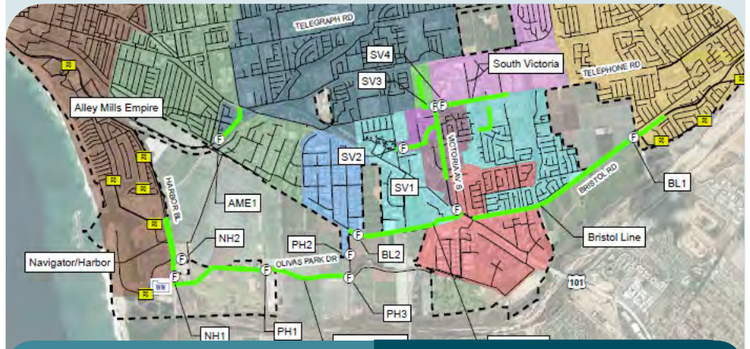
Summary of Project	Key Results Achieved
Updated InfoWater Pro water model & created AquaTwin sewer model. Calibrated both models utilizing SCADA data.	Successful calibration of models led to confidence in model accuracy.
Provides on-call hydraulic modeling & flow meter support for water & sewer systems, including model calibration.	Improves long-term planning accuracy by linking development projections with calibrated hydraulic models.
Utilized AMI billing data to allocate demands to water model & create pressure zone-specific diurnal curves.	Increased granularity of demand allocation promotes better system accuracy.
Supports the development of dynamic Capital Improvement Programs (CIPs) for a 25-year planning horizon.	Integrates operations & maintenance input to address known infrastructure & operational issues.

Client Reference
Sean Diaz
5950 El Camino Real
Carlsbad, CA 92008
(442) 200-7222
sean.diaz@carlsbadca.gov

Cost: $792,000

Relevant Key Staff
Paul Chau, Joette Jackson, Masoom Desai, Salma Taha, Jennifer O'Brien

Multiple Hydraulic Modeling Projects
City of Ventura, CA



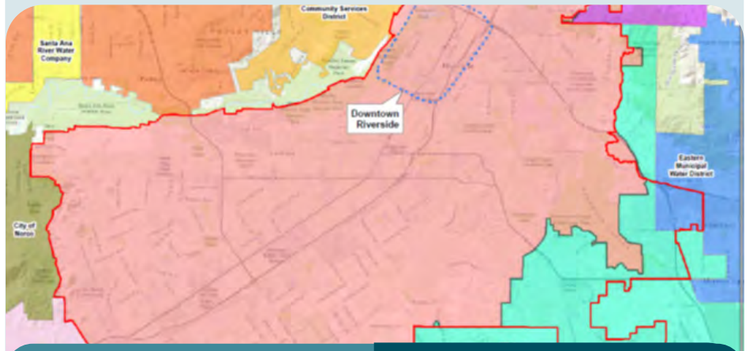
Summary of Project	Key Results Achieved
Maintained Ventura's water & sewer models for 10 years to assess development impacts & system deficiencies.	Clarified development impacts, enabling conditions that reduce financial burden on the water/ sewer department.
Conducted regional water modeling for Ventura, Casitas MWD, & Calleguas MWD, identifying limitations from diurnal demand and headloss during State Water delivery shifts.	Identified time-of-use limits for major water transfers to maintain customer pressures.
Modeled sewer collection systems for five CIP to define work limits, optimize budgets, & size pipeline replacements.	Reduced capital improvement costs by confirming that some previously identified improvements were unnecessary.
Modeled multiple water/sewer capital projects, including reversing the City's transmission flow path & rerouting sewershed flows.	Increased potable water & sewer system efficiency & resiliency by removing system bottlenecks.

Client Reference
Ron Herbst, PE
501 Poli Street,
Ventura, CA 93001
(805) 677-3942
rherbst@cityofventura.ca.gov

Cost: Est. $1 million

Relevant Key Staff
Adam Bugielski, Jeff Savard

Focused Water System Master Plan
City of Riverside, CA



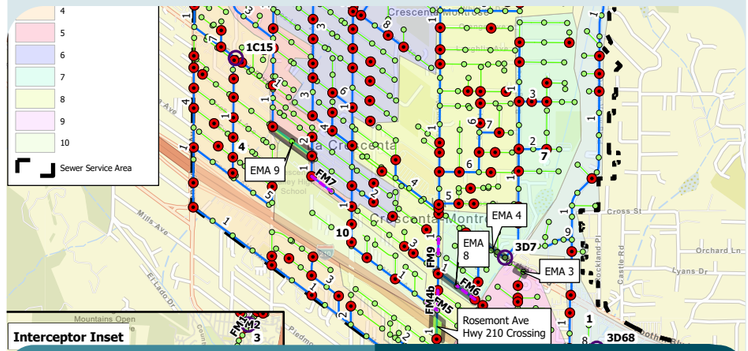
Summary of Project	Key Results Achieved
Developed an all-pipe InfoWater hydraulic model of RPU's potable water supply & distribution systems, including GIS-based model construction & SCADA-driven calibration.	Delivered a fully calibrated, system-wide hydraulic model enabling detailed transmission, distribution, & capacity evaluations.
Created separate model scenarios to analyze the utility's complex transmission & distribution systems.	Developed a targeted CIP supporting Downtown reliability, grade line improvements, & redevelopment needs.
Completed the Focused Water Master Plan (FWMP) to support Downtown Riverside redevelopment & wholesale water transfer planning.	Assessed wholesale water transfer opportunities, documenting system impacts & capital costs to support RPU's negotiations.
Applied a custom demand-development methodology to evaluate Downtown redevelopment needs.	Completed all work on schedule & under budget, enhancing RPU's long-term planning & decision-making capabilities.

Client Reference
Anthony Manzano
(Formerly worked for City of Riverside)
5812 Arbor Rd.,
Lakewood CA 90713
(949) 466-9598
amanzano@lakewoodca.gov

Cost: $322,000

Relevant Key Staff
Paul Chau, Masoom Desai, David Ferguson

Wastewater Master Plan
Crescenta Valley Water District, CA



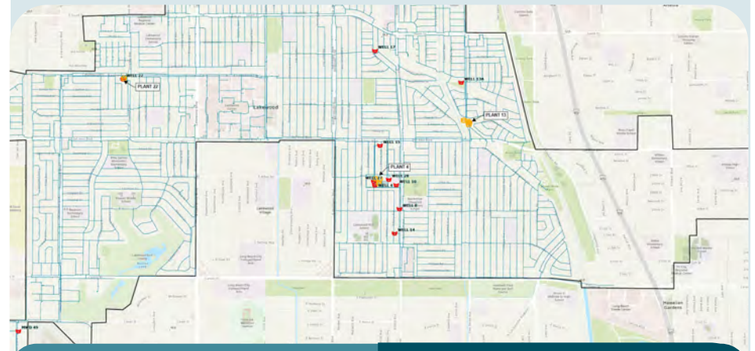
Summary of Project	Key Results Achieved
Prepared the Wastewater Master Plan for Crescenta Valley Water District, providing a comprehensive condition & capacity assessment.	Identified system deficiencies & capacity constraints through integrated field data, modeling, & projections.
Conducted field assessments, flow monitoring, & infiltration/ inflow analysis to evaluate system performance.	Delivered population- & flow-based projections to support long-term infrastructure planning.
Developed and calibrated an InfoSWMM wastewater model using GIS data & dry- & wet-weather flows.	Developed a risk-based, prioritized Capital Improvement Plan with cost estimates & implementation schedules.
Facilitated a Business Risk & Vulnerabilities Assessment (BRVA) to align stakeholders & inform planning.	Provided actionable deliverables, including final reports & a system model operating manual, to support ongoing system management.

Client Reference
James Lee
2700 Foothill Boulevard
La Crescenta, CA 91214
(818) 248-3925
JLee@cvwd.org

Cost: $306,000

Relevant Key Staff
Paul Chau, David Ferguson, Salma Taha, Jennifer O'Brien

Potable Hydraulic Model Phase 1 & 2
City of Lakewood, CA



Summary of Project	Key Results Achieved
Updated & enhanced the City's AquaTwin Water hydraulic model through steady-state & extended period simulation (EPS) analyses.	Established reliable ADD, MDD, & PHD steady-state model scenarios based on recent production, billing, & SCADA data.
Performed demand updates & allocation using recent billing, parcel, & meter GIS data.	Improved model accuracy by validating static pressures & resolving discrepancies with recorded SCADA data.
Calibrated well & booster pump operations using pump curves & SCADA data.	Created a system-wide hourly diurnal demand pattern & successfully transitioned the model to EPS operation.
Developed steady-state & EPS scenarios to support system planning & operational evaluation.	Delivered an updated, stable hydraulic model with documented results and City coordination meetings to support ongoing use.

Client Reference
Anthony Manzano
5812 Arbor Rd.,
Lakewood CA 90713
(949) 466-9598
amanzano@lakewoodca.gov

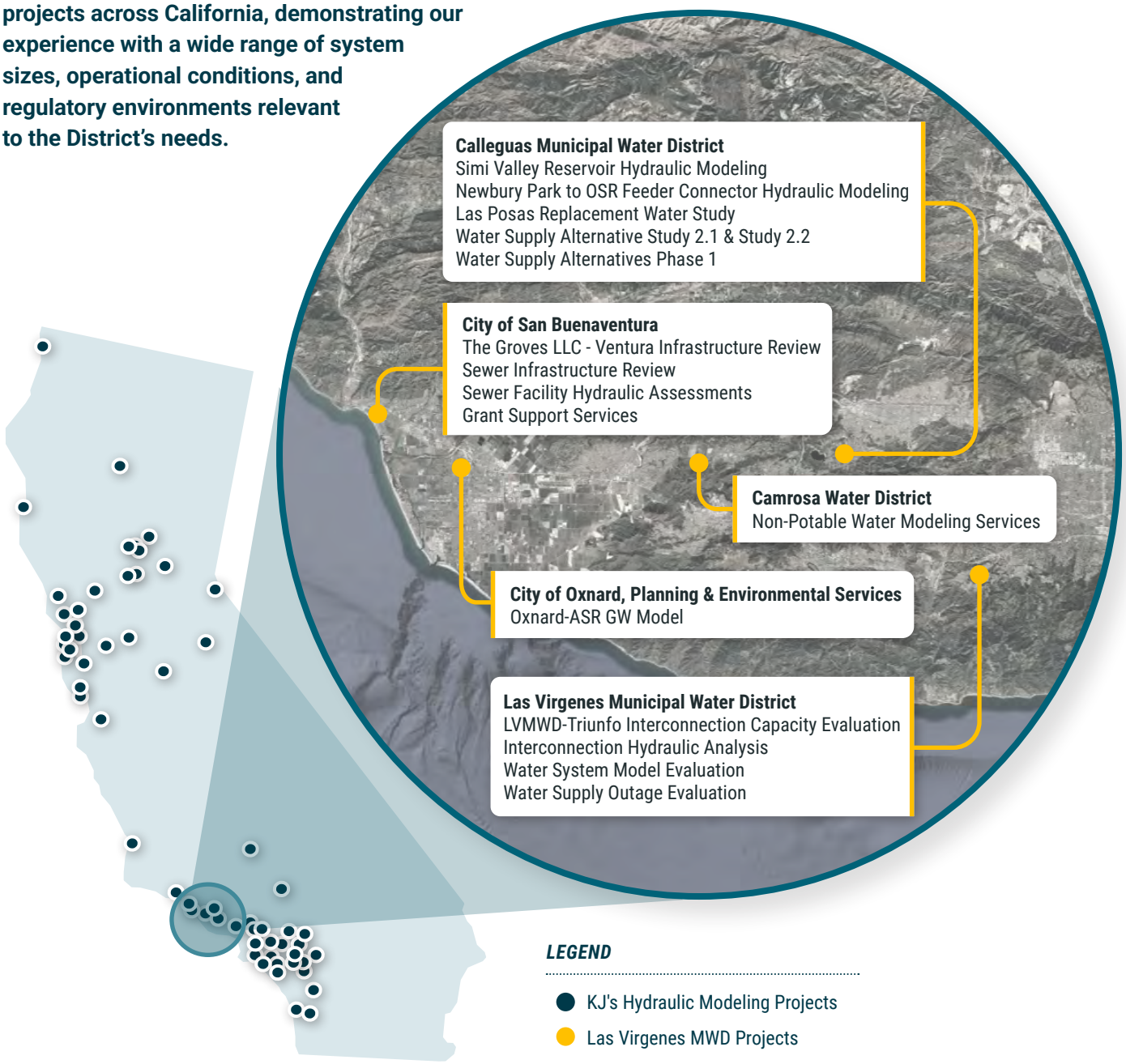
Cost: $25,000

Relevant Key Staff
Paul Chau, Masoom Desai

Proven Modeling Expertise, Mapped to Your Needs

KJ has extensive experience providing potable water and wastewater hydraulic modeling services for public agencies throughout California, **supporting system evaluation, operational planning, fire flow analysis, capacity assessment, and identification of capital improvement needs.** Our work routinely includes development and calibration of GIS-based hydraulic models, integration of SCADA and flow monitoring data, evaluation of existing and future operating scenarios, and preparation of clear, technically defensible documentation to support agency decision-making.

This map highlights KJ's hydraulic modeling projects across California, demonstrating our experience with a wide range of system sizes, operational conditions, and regulatory environments relevant to the District's needs.



Regional Modeling Expertise

KJ brings extensive modeling experience throughout Ventura County and the surrounding region. We have developed, updated, and calibrated hydraulic and sewer system models for Ventura, Oxnard, Calleguas, Simi Valley, and Thousand Oaks, systems that share operational characteristics, hydrologic conditions, and infrastructure challenges similar to those within the District's service area. **Because we have worked directly with your neighboring utilities, we are familiar with their pressure zones, demand patterns, interconnections, and historical modeling decisions.** This perspective strengthens our ability to anticipate cross-jurisdictional considerations, incorporate upstream and downstream system influences, and develop modeling tools that reflect real-world operating conditions in the region.

Institutional Knowledge of the District

KJ has a long-standing partnership with the District, built through the successful delivery of your potable water, sanitation, and recycled water master plans. This history provides continuity with your system data, hydraulic models, planning assumptions, and past decision frameworks. **Because we already understand the foundation of your infrastructure and key operational considerations, our team can immediately focus on the technical elements and refinements that matter most**.

Figure 2 highlights the suite of master plans we have completed for the District, which provides a reliable platform for this next phase of model development and planning.



Figure 2. KJ has completed three of your mater plans, giving us continuity with your data and planning assumptions.

Kennedy Jenks

by the numbers

500+
Planning projects completed in the last 25 years

300+
Potable water system planning projects

150+
Sewer system planning projects

230+
Modeling projects

100+
GIS projects

100+
Combined modeling projects completed by our proposed team

Project Understanding

The District and the JPA are seeking a consultant to develop an update of their Potable Water Hydraulic Model and develop a Sewer Hydraulic Model. These documents will help inform the District of the current capacity of their existing systems, as well as the capacity for future expansion of the system as new uses come online, such as the JPA's Pure Water Program.

It is understood that the following key issues are important in the development of this Project:

- Development of accurate & reliable hydraulic models.
- Developing accurate fire flow data that seamlessly integrates with GIS & Operations Staff workflow.
- Identify critical areas in both systems related to potential pressure surge (water), I&I (sewer), & overall system capacity.
- Keeping the hydraulic model software consistent without reducing functionality.
- Build & calibrate sewer hydraulic model utilizing collected flow meter data to develop diurnal flow patterns & rainfall-dependent inflow and infiltration (RDII) using RTK hydrographs for each sewershed.
- Integration with a future Asset Management System

A Risk-Based Approach Focused On Long-Term Reliability

KJ's approach to updating and developing your potable water and sewer hydraulic models ensures analyses are based on accurate data and that our calibration process clearly identifies system capacity and deficiencies. Leveraging our deep hydraulic modeling expertise and our experience developing the 2014 Potable Water Model, we will deliver this work with the highest accuracy. **Figure 3** summarizes our approach and the benefits to the District, with details provided on the following pages.

Potable Water Model & Sewer Model Approach

	1 Project Initiation	2 Data Collection	3 System Analysis	4 Capacity Analysis	5 Hydraulic Model Reporting
Key Approach Element	• Basis of kickoff meeting with District staff • Assign roles & responsibilities • Identify communication protocol	• Review Existing • Documentation & Data • Understand improvements to the system after 2014 Master Plan • Develop & Execute Strategic Sewer Flow Monitoring Plan	• Develop a collaborative calibration plan • Update Hydraulic Models infrastructure • Incorporate existing SCADA & operational parameters	• Identify Capacity Based limitations • Define improvement recommendations • Risk-based improvement schedule	• Comprehensive summary of system calibration • GIS based model that is AMS ready • Usable results for quick field reference
Benefit to the District & JPA	• Align on key issues, goals, & expectations • Capture institutional • knowledge • Understand major vulnerabilities & pain points • Efficiently allocate planning resources	• Minimize data gaps with real-time monitoring • Accurate model calibration by identifying key confluence points	• Easily maintained, accurate hydraulic models • Reliable facility analyses • Proactive development of key infrastructure data for future AMS	• Align Pure Water Project goals • Prioritize capacity needs and risk to overall system operations • Maximize ROI by setting up for future operational needs	• Proactive planning for future growth & improvements scenarios • Easy access to data in the field, particularly fire flow results • Comprehensive understanding of both water & sewer systems

Figure 3. KJ's project approach provides the District and JPA with numerous benefits, including accurate analyses and reliable hydraulic models that convey existing system conditions and capacity for future planning.

1 Project Initiation

Understanding Your Systems Is Key to Developing an Accurate Hydraulic Model

KJ begins by listening to you. The Basis of the project kickoff will align KJ's potable water and sewer project teams with District staff for project goals, assumptions, and the desired structure for the updated Potable Water and developed Sewer Hydraulic models.

During the project initiation phase and kickoff, KJ staff, in collaboration with the District, will identify key roles and responsibilities, gain insight into the routine and proposed operations of the potable water and sewer system, and confirm project goals and outcomes.

The District will receive the greatest return on its investment with effective updates and development of the two hydraulic models. By engaging District staff early in the process, KJ will focus our analysis on the most critical portions of the potable water and sewer systems, particularly areas of known concern and future needs.

2 Data Collection

Review Existing Documentation to Identify Relevant Components for the Plan Updates

KJ will conduct a thorough review of all pertinent data and planning documents to aid in the Hydraulic model update and development. At the Kickoff meeting, KJ will provide District staff with a data needs list, many of which have already been identified by the District. By combining this list of data needs with the KJ team's history through development of the 2014 Potable Water, Sanitation, and Recycled Water Master Plans and experience with developing several water and sewer hydraulic models will allow the team to efficiently incorporate the pertinent information into the hydraulic models.

KEY PROJECT SAVINGS **Selecting a single consultant to deliver both hydraulic models allows project meetings and key data sets to be consolidated, reducing duplication and overall project costs.**

Real-time Flow Monitoring Minimizes Data Gaps

Unlike the potable water system model, the sewer collection system hydraulic model will be developed from existing GIS data, and additional data will be collected to perform an accurate model calibration. **Because the quality of the hydraulic model depends entirely on the quality of the underlying data, one key step is a QC review of the GIS data before importing it into the model.** During this review, KJ will work with the District to identify and correct errors, improving efficiency during model development. Model validation is another essential QC step. After the initial model builds are complete, we will run the models to identify any errors or gaps in the facility data—such as incorrect sewer invert elevations—so they can be corrected with the District prior to calibration. KJ will also work with the District to understand where recent flow monitoring has been completed as part of the I&I program. In collaboration with District Engineering and Operations staff and our flow metering subconsultant, K-Flow Solutions (K-Flow), we will develop a flow metering plan to capture wet weather data at strategic confluence points in the collection system for the 2026–2027 wet weather season. Up to eight (8) temporary flow meters will be installed and maintained for up to four months, with the option to extend if no wet weather events occur (estimated October 2026 through January 2027).

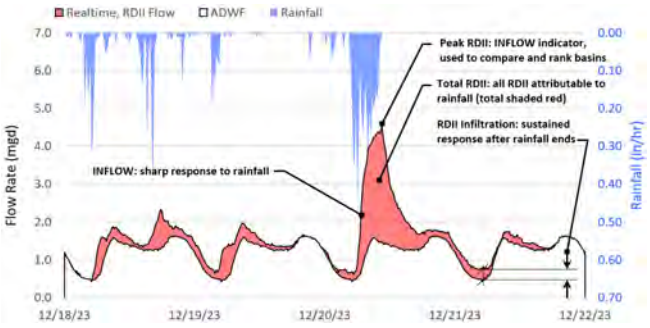


Figure 4. Graph from K-Flow representing the sewer system response to rainfall and other I&I potential.

Locations will be selected to accurately correlate flows with land uses to support the return-to-sewer rate calculation, and K-Flow will monitor data in real time via their in-house web application (Figure 4) to minimize downtime. Final locations will minimize traffic control needs and will be confirmed through the calibration plan in collaboration with the District.

3 System Analysis

Model Infrastructure Updates/Development

The District has indicated that a goal of the project is to have modeling software that is consistent with both the existing InfoWater hydraulic model for the recycled water system as well as a future asset management system.

KJ's Broad Modeling Experience Will Help the District Select Best Fit Software

Prior to the model calibration effort, KJ will assist the District in selecting the hydraulic modeling software that best fits the District's needs, examining cost, ease of use, unique features/capabilities, integration with GIS geodatabases, and the software's future-proofing. KJ has active licenses and expertise in Autodesk (Innovyze Infowater/Infoworks ICM), PCSWMM, and Aquanuity (Aquatwin Sewer) modeling software; **we will leverage our experience to help the District make the best choice.**

Updates and infrastructure development for each hydraulic model will first be imported from the existing model and GIS data. Careful consideration will be taken into account to ensure proper connectivity of distribution and collections pipelines. Recently constructed infrastructure will be modeled based on record drawings. **Proposed infrastructure, such as that related to the Pure Water Project, will also be added without impacting existing conditions** and will be used for future modeling scenarios, including after commissioning of the Pure Water Project.

While updating and building the hydraulic model, **attribute data will be imported and formatted to be consistent with common asset management systems.** This will enable seamless data merging into a new asset management system to support asset monitoring, risk assessment, and future capital improvement planning & prioritization.

After the skeletonized model is updated with all existing and future infrastructure currently identified, **the KJ team will work with District staff to populate operational parameters,** including but not limited to SCADA, supply deliveries, pump curves, recent pump tests, and tank operating levels.



Possible AMS Programs for LVMWD/JPA:

- Maximo
- Lucity/CentralSquare
- Cartegraph

KJ's Scott Lehman has experience implementing Asset Management Systems for several clients, most recently:

- **Zone 7 Water Agency,** Alameda County, CA

  As part of a multi-phase Asset Management program, KJ provided 3rd party software selection support. Phase II of the Program which includes work order software implementation including asset data collection, preventative maintenance job plan development document management, & GIS integration.

- **North Charleston Sanitation District,** North Charleston, SC

  Provided software selection & implementation support services. This included asset data collection, professional support during implementation, software training, & reporting.

- **Tahoe City Public Utilities,** Tahoe City, CA

  This included development of selection criteria, development of the proposal, & consulting services for the selection & implementation of the Computerized Maintenance Management System.

Water Model Calibration

The basis of the calibration plan will include AMI billing data and the generation of diurnal demand curves for each pressure zone within the model. **Knowledge of your potable water model enables our team to hit the ground running and calibrate it quickly, providing greater confidence in the model's accuracy.** As part of the calibration plan and model update, the KJ team will recommend multiple fire flow locations to further update the friction factors, enabling both proper domestic pressures to be modeled and realistic fire flow values to be used. KJ's subconsultant, Davis Fire Protection, will perform an estimated five (5) hydrant flow tests to assist with calibration. This is the same approach KJ used when partnering with Dravis Fire Protection for the Thousand Oaks Water Model and Master Plan update project. KJ will also utilize the recent Pipeline Condition report to ensure that the model results are consistent with aging portions of the distribution system. **Figure 5** shows the District's 2014 Master Plan, which we will utilize throughout this project.

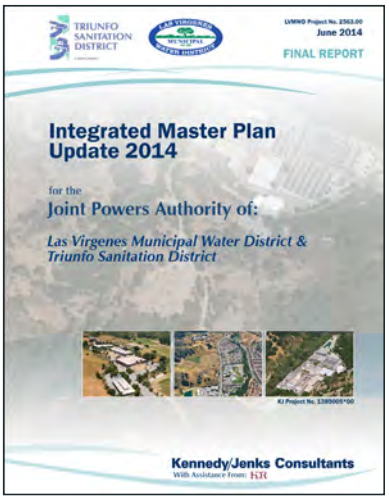


Figure 5. The District's 2014 Master Plan completed by KJ.

Sewer Model Calibration

Compared to the potable water hydraulic model, the Trunk Sewer hydraulic model requires a more in-depth analysis to calibrate and validate the collection system hydraulic model and ensure it is a representative "digital twin" of the current system. **KJ will review the District's GIS database, sewer lift stations, metered flows, record drawings, and flow meter data at the Tapia Water Reclamation Facility.** We will again develop a calibration plan with District staff to review the hydraulic model's existing components (lift stations, force mains, gravity sewer pipes, outfalls, trunk line connection points from County of Los Angeles' combined sewer system, etc.) to align with the Trunk Sewer system assets.

To maximize the accuracy of the spatial distribution of sewer loads, KJ will:

- Reevaluate the sanitary sewer unit flow factors for residential, commercial, & industrial land use types based on the collected flow monitoring data from the 2026-2027 wet weather seasons.
- Multiply the water billing data for customers within the sewer service area by the updated sanitary sewer unit flow factors (return to sewer ratio) based on land use type.
- Compare the total calculated return sewer flow to the measured flow data from the permanent flow meters to confirm the mass balance is correct & quantify any base flow/ groundwater infiltration
- Geolocate the sewer point loads based on water meter and/or parcel GIS data

KEY PROJECT SAVINGS **Review of water billing can be done once by the same consultant if hired to complete both hydraulic models. Water billing data is used as a base for the return to sewer ratio used for comparison with measure flow performed by KJ's subconsultant, K-Flow Solutions.**

With the sewer loads spatially distributed, KJ will then use the flow meter data to calibrate the hydraulic model and RTK hydrographs upstream of each metered confluence point. **Figure 6** on the following page shows the workflow for the sewer model calibration.

Import Flow Monitoring & Rainfall Data → Define ADWF Patterns → Create RDII/Wet Weather Time Series & Calibrate RTK Parameters → Compare Calibrated Model Flow to Observed Flows

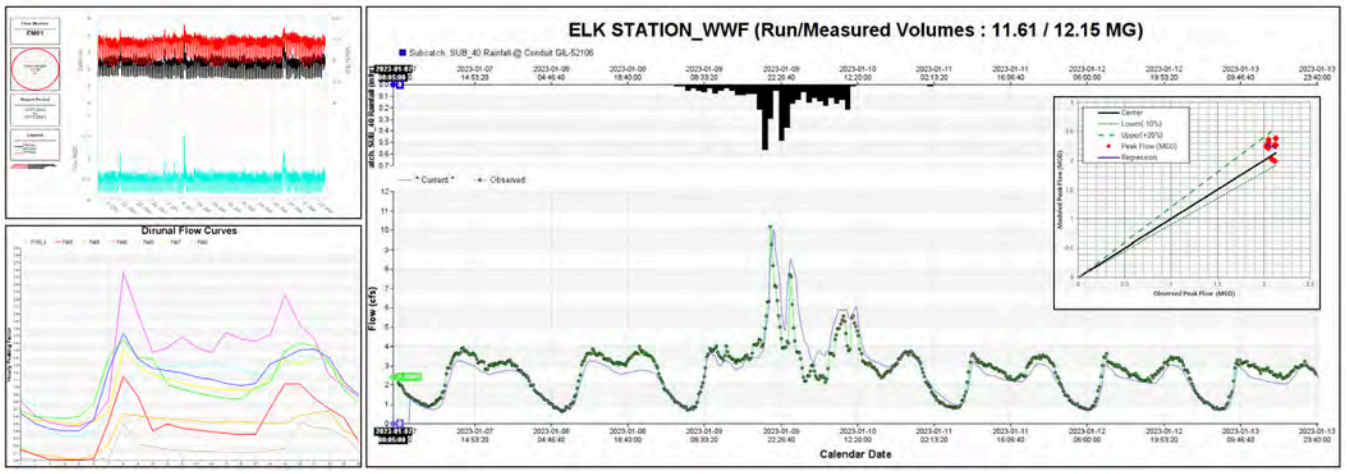


Figure 6. Using the described approach, KJ provided a calibrated accurate sewer model for Crescenta Valley Water District as shown in the calibration plot above.

4 Capacity Analysis

Incorporating Risk to Your CIP Analysis Provides Most Value for Your Finite CIP Budget

KJ will run the **calibrated water model** under existing and future demands, including max day demand (MDD) and peak hour conditions, to identify system deficiencies, including low operating pressures, excessive pipeline velocities, or deficient fire flow capacities. KJ will use the potable water hydraulic model to help the District develop potential capital improvement projects if key infrastructure (i.e., turnouts, storage tanks, pipelines) shows deficiencies. Included in this evaluation will be high-level recommendations to protect the system from water hammering/surge events.

KJ will run the **calibrated sewer model** considering existing and future scenarios for peak dry weather flow (PDWF), peak wet weather flow (PWWF), and PWWF with planned capital improvements such as pure water flows and potential dry weather stormwater flow diversions. KJ will assess the system's existing capacity, identify system deficiencies, required maintenance efforts, and assess future pipe capacity limitations within the system. The District's sewer collection system flows are unique in that the PDWF, which occurs during the summer months, is comparable in magnitude to the PWWF in the winter months due to seasonal fluctuations and potentially higher groundwater. KJ will capture the different stresses on the collection system driven by the PDWF (seasonal activity) and the PWWF (I&I).

5 Hydraulic Model Reporting

KJ will document all work performed to develop the updated potable water and new Trunk Sewer Hydraulic models, and provide these documents to the District and JPA for review. KJ's Hydraulic model reports will clearly define and summarize the methodology used to develop the hydraulic model. All data and analyses will be presented transparently, enabling the District and JPA to revisit and justify the recommendations as needed. The report will also recommend any areas of concern that may warrant a capital improvement project. All model data exports, particularly fire flow hydrant results, will be included for quick reference whenever needed.

Modeling Approach and Plan

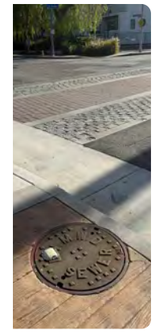
Potable Water

Sewer

Strategically placed hydrant testing to be determined during calibration planning phase. Testing will increase accuracy of the model & understanding of systemwide fire flow rates

Strategically placed flow monitoring locations to minimize cost with traffic control & maximize data capture

Example of catchment area based on strategically placed flow meter



Example of strategically placed Placed Flow Monitoring Locations to minimize cost with traffic control & maximize data capture. Manhole located in sidewalk near the intersection of Calabasas Rd. & El Canon Ave.

Leveraging existing data at lift stations limits the number of flow monitoring locations to save on budget

Example of focus area for potential surge—Long pipe runs with no loop connections

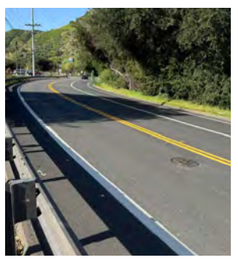
Example of catchment area based on strategically placed flow meter





Example of potential flow monitoring location that does not require traffic control. Manhole located east of the Las Virgenes Rd. & Mureau Rd. intersection. Secondary option within LA County Flood Control property





Example of potential flow monitoring location that does not require traffic control. Manhole located on Old Topanga Canyon Rd outside of drive lanes. Avoids need to access manhole on Mulholland Hwy, which is not recommended

Effective QA/QC Achieves Project Success

KJ's quality control/quality assurance (QA/QC) program is critical to delivering projects successfully. The focus of our program is that every deliverable is reviewed and checked by an independent set of eyes. We will develop and implement a QA/QC Plan tailored to the specific project challenges to deliver high-quality results. An experienced, qualified Quality Manager will be assigned to your project and confirm that the QA/QC Plan is implemented and that recommended changes are addressed.

Approach to Quality Management During Design and Throughout Implementation

All KJ work undergoes a mandatory QA/QC process to check work integrity and consistency. Integrated into our project management system from inception, QA/QC includes independent technical reviews conducted by experienced staff who are not directly involved in the work. For each task order, we prepare a QA/QC Plan aligned with your review approach. On planning and modeling projects, we also conduct a Concept and Criteria Review (CCR) at the data collection stage, engaging senior staff to evaluate concepts, validate existing and collected data, and review preliminary results. This proactive process reduces rework, allows project work plans to function as intended, and reduces the need to repeat procedures if input data needs to be further evaluated or adjusted.

Key elements of our Quality Management capabilities and approach include:

- Internal Kickoff with Quality Control specialist to ensure project goals align with risk mitigation.
- Quality assurance through proactive establishment of schedule, data & quality control procedures.
- Quality gates are established as hold points during work planning & are used as quality checkpoints during execution. Particular care is taken when validating field data and measurements.
- **Transparent Communication:** Regular coordination meetings, written progress updates, & budget/schedule tracking tools maintain transparency & responsiveness.
- **Comprehensive Review:** Prior to any deliverables being distributed, our QA/QC manager will complete a thorough review of the work product, including supporting data and completed work.

Implementing and Maintaining Quality Control

Our QA/QC Review Team oversees implementation, maintenance, and milestone reviews to ensure effectiveness. As Project Manager, Adam Bugielski will engage experienced staff not directly involved in the work for independent technical reviews. Adam, along with QA/QC Manager David Ferguson, will manage subconsultants, monitor scope and budget, and review all subconsultant deliverables before submission to the District.

QA/QC Reviews Delivered at the Right Level and Time to Support Project Success

Our QA/QC process shown in the **Figure 5** on the following page is designed to promote regular communication with you and the project team to identify and resolve project issues quickly. The QA/QC process is tailored to this project to provide the right review at the right level at the right time.

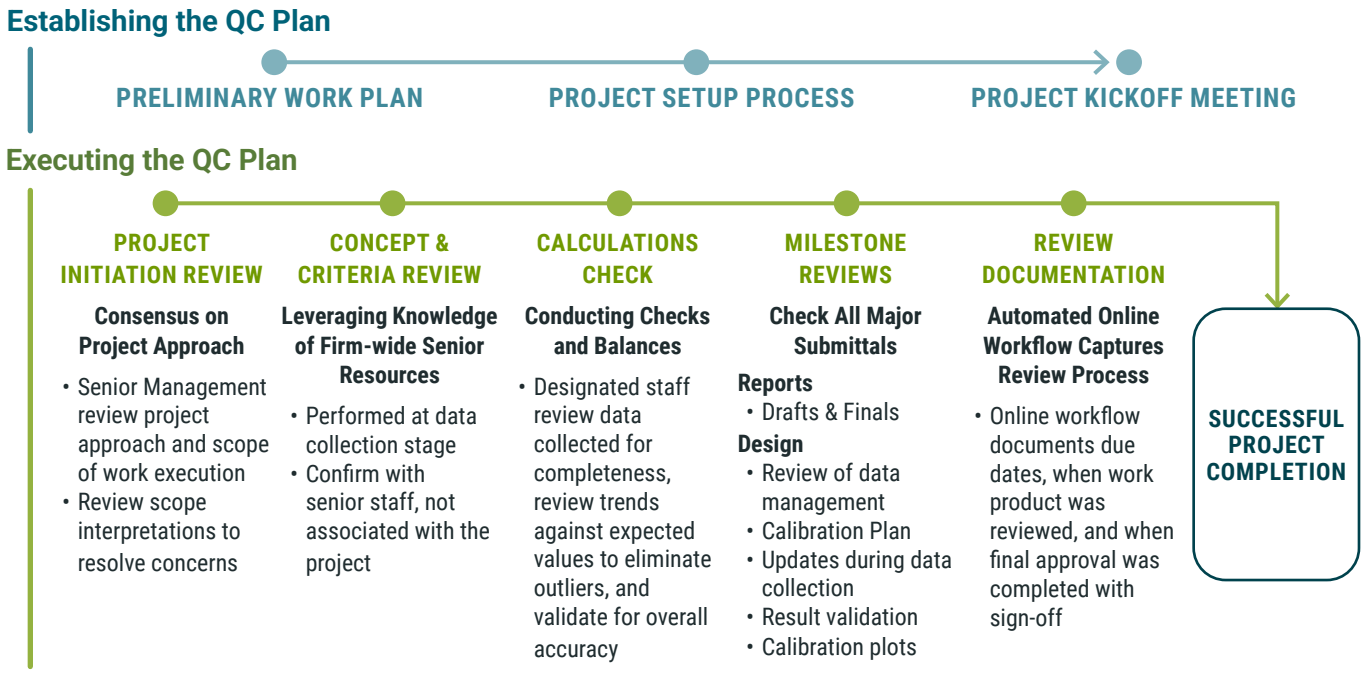


Figure 5. KJ's QA/QC process provides confidence within our work as we maintain regular communication with the District, identifying and resolving project issues swiftly.

Scope

Potable Water Model Update

Task 1 – Project Management, Meetings, and Quality Control/Quality Assurance

1.1 Project Management: KJ shall provide one Project Manager for both model efforts who shall serve as the primary point of contact. KJ Project Manager oversees project coordination and communication, invoicing, schedule and budget tracking. It is assumed that the Project will be completed in 15 months.

1.2 Kick-Off Meeting: KJ shall attend an in-person kick-off meeting with District staff. Prepare and submit meeting agenda and meeting minutes. Up to three (3) KJ staff will attend in person and two (2) virtual Attendees. During the Kick-Off Meeting, project objectives, data needs, and schedule will be discussed and confirmed.

1.3 Project Meeting: Throughout the project regular coordination meetings with District staff may be needed as the project progresses. KJ shall attend up to 12 progress review meetings to discuss project status, request or present information, review deliverables, and gain concurrence on key project issues. Progress meetings shall be attended in-person or virtual as needed. KJ shall prepare and submit meeting agendas and meeting notes.

1.4 QA/QC: Project deliverables will undergo quality reviews prior to submittal to the District in accordance with KJ's Quality Control Program. An internal team project initiation review meeting and Concept & Criteria Review meeting will be conducted to review project approach and methodology early in the process. As the project is executed, other QC reviews are performed at appropriate milestones, which are generally associated with submittals to the District; internal QC review will occur prior to submission of a submittal.

Task 2 – Data Collection & Review

2.1 Data Collection & Review: Prepare and maintain a data request tracking log and provide common access among all team members via Microsoft Teams or other District approved data management platform. Obtain and review all available and pertinent information, reports, data, and mapping relevant to the Potable Water hydraulic model Updates including, but not limited to the following:

- The existing 2014 Water GEMs model
- The District's current GIS geodatabase
- The District's iGreen historian data
- 2014 Potable Water Master Plan
- Record drawings for recently completed projects
- Recent pump test data
- SCADA setpoints and controls scheme
- Most Recent Urban Water Management Plan (Draft 2025 if available)
- Water consumption/billing data (AMI data at hourly intervals if available)
- Recently completed water main condition assessment
- Record drawings for recently completed projects
- Design plans for proposed facilities related to the Pure Water Project

Additional data collection needs will be identified in later tasks, as needed to complete the hydraulic model calibration.

Deliverables:

- Data Request Tracking Table summarizing available data and identifying data gaps

Task 3 – Hydraulic Model Update

3.1 Model Infrastructure Updates: The District currently uses the potable water model in WaterGEMS and a recycled water model in infoWater. Alternative water modeling software shall be briefly evaluated for consistency with all hydraulic models and the potential future Asset Management System and current GIS needs. KJ will present the benefits and limitations of maintaining WaterGEMS, converting to InfoWater, and a third option of AquaTwin. If an alternative software is selected by the District for use on this project, KJ shall convert and calibrate the model to the selected water modeling software. For purposes of this scope of work, it is assumed that InfoWater will be selected as the modeling software for consistency with the District's recycled water model.

As a result of the efforts in task 2.1, KJ will update the converted hydraulic model and include any newly constructed or planned infrastructure. This includes but is not limited to the Calleguas Municipal Water District interconnect project and the future infrastructure related to the Pure Water Project. KJ will provide a GIS database (formatted for common Asset Management Systems) of the model elements that the District can access online and review.

Use the data collected in Tasks 2.1 to complete or update the facilities of the existing potable model. KJ shall update the existing SCADA controls, tank levels, and pumping facilities (pump curves and setpoints) based on this information to provide the most accurate operation condition possible.

3.2 Potable Water Demand Analysis: It is understood that the District has AMI data for metered water demands, which will be utilized to evaluate monthly, daily, and hourly demands. Prior to using the AMI data, KJ will thoroughly review the data for anomalies and coordinate with the District to make adjustments to the AMI data, as needed. The District's land use data shall be used for future demand evaluation in conjunction with the demand forecast tool.

As part of the demand analysis, KJ shall perform these tasks:

- Develop Diurnal demand Curves for each pressure zone
- Identify average day, maximum day, minimum month demands for existing
- Develop average day, maximum day, minimum month demands for future land use factors

3.3 Potable Water Supply Analysis: Existing Water Supply Sources. Evaluate and summarize existing water supply sources, capacities, and potential issues that could affect water delivery to the District.

New/Future Supply Sources. KJ will update the existing supply source (imported water) based on historical Water supplies and demands identified in Task 3.2. Newly constructed interconnections will be taken into account, even in emergency scenarios, to ensure model functionality. Future supply sources, particularly related to Pure Water, will be included in the hydraulic model.

3.4 Calibration Plan: KJ will provide a draft calibration plan in accordance with AWWA Manual M32 for the District's review that will encompass both static and extended period simulation (EPS) calibration procedures. A final calibration plan will

be provided based on the District's comments. The calibration plan will include the following components:

- Documentation of any changes to the existing infrastructure as part of task 3.1
- Summary of Existing Demand/Supply data provided by Tasks 3.2 and 3.3.
- Recommended Hydrant testing locations for fire flow testing.
- Update hydraulic friction factors - The friction factors will be updated based on the static calibration results developed through hydrant demand testing as stated above and review of the District's water main condition assessment.
- Any additional data not collected during Task 2.1.

The calibration level of accuracy will be developed in accordance with the general guidelines provided by AWWA Manual M32, Section 4.1.4.2. Predicted HGLs will be within 5-10 ft of the field-recorded values, and water level fluctuations predicted by the model will be within 3-6 ft of the field-recorded values.

3.5 Scenario Development & Evaluation: The updated potable water hydraulic model will have the following scenarios updated/developed and will incorporate the data collected and verified from previous tasks:

- Existing Operations
- Minimum and Maximum Day Demand Scenario
- Fire Flow Scenario
- Peak Hour Demand Scenario

3.6 Capacity Analysis: Utilizing the calibrated hydraulic model including previous documentation, data, fire flow results, KJ will evaluate the system for capacity related constraints. The following will be reviewed as part of the capacity analysis:

- Evaluate current system pressure and flow rates versus data used in the 2014 water master plan to determine the existing average day, peak hour, and minimum/maximum day demand implications. Review and update design criteria from the 2014 Water Master Plan to be used for potable water hydraulic modeling and planning.
- Use the calibrated model to analyze the capacity of the existing system in its current condition and with future system buildout conditions under both peak hour and maximum day demands.
- Utilize the calibrated model to identify any capacity deficiencies either caused by undersized main, excessive head losses potential due to age and material of system, or long straight runs with no looped connections (potential risk to system caused by surge).

Deliverables:

- Calibration Plan (draft and final – electronic PDF format)
- Calibrated hydraulic model electronic file
- Electronic copies of all data files and GIS layers developed or updated as part of the project
- Fire flow tags for import into GIS

Task 4 – Modeling Report

4.1 Draft Modeling Report: The draft modeling report will summarize all the information provided, the work that was completed, and the results observed at completion of the update to the potable water hydraulic model. The modeling report will include the following sections:

- Description of the data sources utilized.
- Overview of the existing and added facilities include set points and controls.
- Summary of the methodology and approach to the Model update.
- Summary of the Calibration Plan.
- Documentation of any conflicts or issues resolved during the model update.
- Summary of any changes to the existing model.
- Hydrant Fire Flow results tables.
- Demand/Pressure output results,
- Future supply/interconnect summary of potential operations
- Identification of deficient or near deficient areas
- Identification of areas subject to potential damage resulting from transient (surge/water hammer) forces for future analysis
- High level recommendation for potential capital improvement projects
- Draft Model Report will be submitted to the District for review and comment.

4.2 Final Modeling Report: Upon completing a review meeting with District staff and receiving any comments on the draft Model Report, KJ will update the final report and submit electronic copies in PDF format to the District.

Deliverables:

- Modeling report (draft and final – electronic PDF format)

Sewer System Hydraulic Model Creation

Task 1 – Project Management

1.1 Project Management: KJ shall provide one Project Manager for both model efforts who shall serve as the primary point of contact. KJ Project Manager oversees project coordination and communication, invoicing, schedule and budget tracking. It is assumed that the Project will be completed in 15 months.

1.2 Kick-Off Meeting: KJ shall attend an in-person kick-off meeting with District staff. Prepare and submit meeting agenda and meeting minutes. Up to three (3) KJ staff will attend in person and two (2) virtual Attendees. During the Kick-Off Meeting, project objectives, data needs, and schedule will be discussed and confirmed.

1.3 Project Meeting: Throughout the project regular coordination meetings with District staff may be needed as the project progresses. KJ shall attend up to 12 progress review meetings to discuss project status, request or present information, review deliverables, and gain concurrence on key project issues. Progress meetings shall be attended in-person or virtual as needed. Coordination meetings with the local collection system owner, Los Angeles County, will be included as needed in the 12 meetings identified KJ shall prepare and submit meeting agendas and meeting notes.

1.4 QA/QC: Project deliverables will undergo quality reviews prior to submittal to the District in accordance with KJ's Quality Control Program. An internal team project initiation review meeting and Concept & Criteria Review meeting will be conducted to review project approach and methodology early in the process. As the project is executed, other QC reviews are performed at appropriate milestones, which are generally associated with submittals to the District; internal QC review will occur prior to submission of a submittal. Record drawings for recently completed projects.

Task 2 – Data Collection and Review

2.1 - Data Collection and Review – Prepare and maintain a data request tracking log and provide common access among all team members via Microsoft Teams or other District approved data management platform. Obtain and review all available and pertinent information, reports, data, and mapping relevant to the Sewer hydraulic model development including, but not limited to the following:

- The District's current GIS geodatabase
- The District's iGreen historian data
- 2014 Sewer Master Plan
- Record drawings for recently completed projects
- Recent pump test data for lift stations
- Pump curves, wet well levels, and flow meter data
- SCADA setpoints and controls scheme
- PureWater Basis of Design Report
- Water consumption/billing data
- Recent CCTV inspections
- WWTP influent and effluent flow monitoring data
- Available rainfall records from rain gauges in the District's service area
- Water consumption/billing data (AMI data at hourly intervals if available, utilized to develop return to sewer ratios for land use types)
- Record drawings for recently completed projects
- Design plans for proposed facilities related to the Pure Water Project

Additional data collection needs will be identified in later tasks, as needed to complete the hydraulic model calibration.

Deliverables:

- Data Request Tracking Table summarizing available data and identifying data gaps

Task 3 – Hydraulic Model Development

3.1 Model Infrastructure Development: The District currently uses the potable water model in WaterGEMS and a recycled water model in infoWater. Alternative sewer modeling software shall be briefly evaluated for consistency with all hydraulic models and the potential future Asset Management System and current GIS needs. KJ will present the benefits and limitations of utilizing SewerGEMS, InfoWorks ICM, or AquaTwin Sewer. For purposes of this scope of work, it is assumed that InfoWorks ICM will be selected as the modeling software for consistency with the District's recycled water model.

As a result of the efforts in Task 2.1, KJ will model the existing truck sewers and lift stations. Additional consideration will be taken for any new or proposed infrastructure in the Trunk Sewer System such as that related to the Pure Water Project or dry weather/ first flush stormwater diversions. KJ will provide a GIS database (formatted for common Asset Management Systems) of the model elements that the District can access online and review.

Use the data collected in Task 2.1 to model the facilities of the Trunk Sewer System KJ shall model the existing SCADA controls and lift stations (pump curves and setpoints) based on this information to provide the most accurate operation condition possible.

3.2 Calibration Plan: Inclusive of data received from the District a calibration plan will be developed and submitted to the District for review. The flowing steps will be taken to develop the calibrated sewer loads for the model:

- Locations of the proposed monitoring devices to measure existing dry and wet weather flows. Locations will be selected to minimize traffic control needed.
- Import Flow Monitoring and Rainfall Data. Import flow monitoring data for each monitored location. Import weighted rainfall data for the collection system service area.
- GWI and BWF Extraction. Use software to separate dry weather flow meter data into groundwater infiltration (GWI) and base wastewater flow (BWF). BWF represents the sewer loadings from upstream customers.
- Define BWF Pattern and Adjust Sewershed Loads. Use the isolated BWF to develop a demand pattern that can be applied to upstream customers. Adjust the magnitude of the sewer loads to match the monitored flows during dry weather flow conditions (less the GWI).
- Create RDII/Wet Weather Time Series. The rainfall derived inflow and infiltration (RDII) during a wet weather event is defined as the total observed flow minus the BWF and GWI. This helps identify what portion of wet weather flow is due to I&I.
- Calibrate RTK Hydrograph Parameters. The RTK parameters are used to measure the short-term, medium-term, and long-term sewer flow responses to a wet weather event. The modeling software is used to calibrate the RTK parameters for each sewershed (area upstream of the flow monitoring station). A genetic algorithm is used to iterate the RTK parameters until the predicted RDII matches the observed RDII. The more significant wet weather events that are captured during the flow monitoring period, the more accurate the RDII calibration is.
- Finally, the calibrated flow can be compared to the observed flow at each flow monitoring location to examine how well the model performs.

3.3 Sewer Flow Monitoring: Flow monitoring will be conducted by KJ subconsultant, K-Flow, as the primary source of developing the loading in the sewer hydraulic model. It is assumed that 8 flow monitoring locations throughout the system will be placed to measure flows over a minimum of 2-month period to capture seasonal functionality as well as wet weather events. Wet weather data will be utilized to determine the amount of inflow and intrusion in the Trunk Sewer System.

3.4 Scenario Development & Evaluation: The sewer hydraulic model will have the following scenarios updated/developed and will incorporate the data collected and verified from previous tasks:

- Existing system with peak dry weather flow
- Existing system with peak wet weather flow
- Future system with peak dry weather flow
- Future system with peak wet weather flow

- Future system includes build-out and additional flow from Pure Water Operations and Dry weather storm water diversions.

3.5 Capacity Analysis: Utilizing the calibrated hydraulic model and flow monitoring reports provided by K-Flow, KJ will evaluate the system for capacity related constraints. The following will be reviewed as part of the capacity analysis:

- Evaluate current sewer flow monitoring data versus data used in the 2014 sewer master plan to determine the existing peak dry weather and peak wet weather flow factors. Identify areas that have undergone sewer replacement and incorporate inflow and infiltration (I&I) analysis from recent flow reports into the model. Review and update design criteria from the 2014 Sewer Master Plan to be used for sewer hydraulic modeling and planning.
- Use the calibrated model to analyze the capacity of the existing system in its current condition and with future system buildout conditions under both peak dry weather and peak wet weather flows.
- Utilize the calibrated model to identify any capacity deficiencies either caused by excessive sewer loading or I&I.

Deliverables:

- Calibration Plan (draft and final – electronic PDF format)
- Calibrated hydraulic model electronic file
- Electronic copies of all data files & GIS layers developed or updated as part of the project

Task 3 – Modeling Report

4.1 Draft Modeling Report: The draft modeling report will summarize all the information provided, the work that was completed, and the results observed at completion of the update to the potable water hydraulic model. The modeling report will include the following sections:

- Description of the data sources utilized.
- Overview of the modeled facilities include set points and controls.
- Summary of the methodology and approach to the Model update.
- Summary of the Calibration Plan.
- Documentation of any conflicts or issues resolved during the model update.
- Summary of flow monitoring locations and data.
- Sewer Model load output results,
- Future loading summary of potential operations
- Identification of deficient or near deficient areas
- High level recommendation for potential capital improvement projects

4.2 Final Modeling Report: Upon completing a review meeting with District staff and receiving any comments on the draft Model Report, KJwill update the final report and submit electronic copies in PDF format to the District.

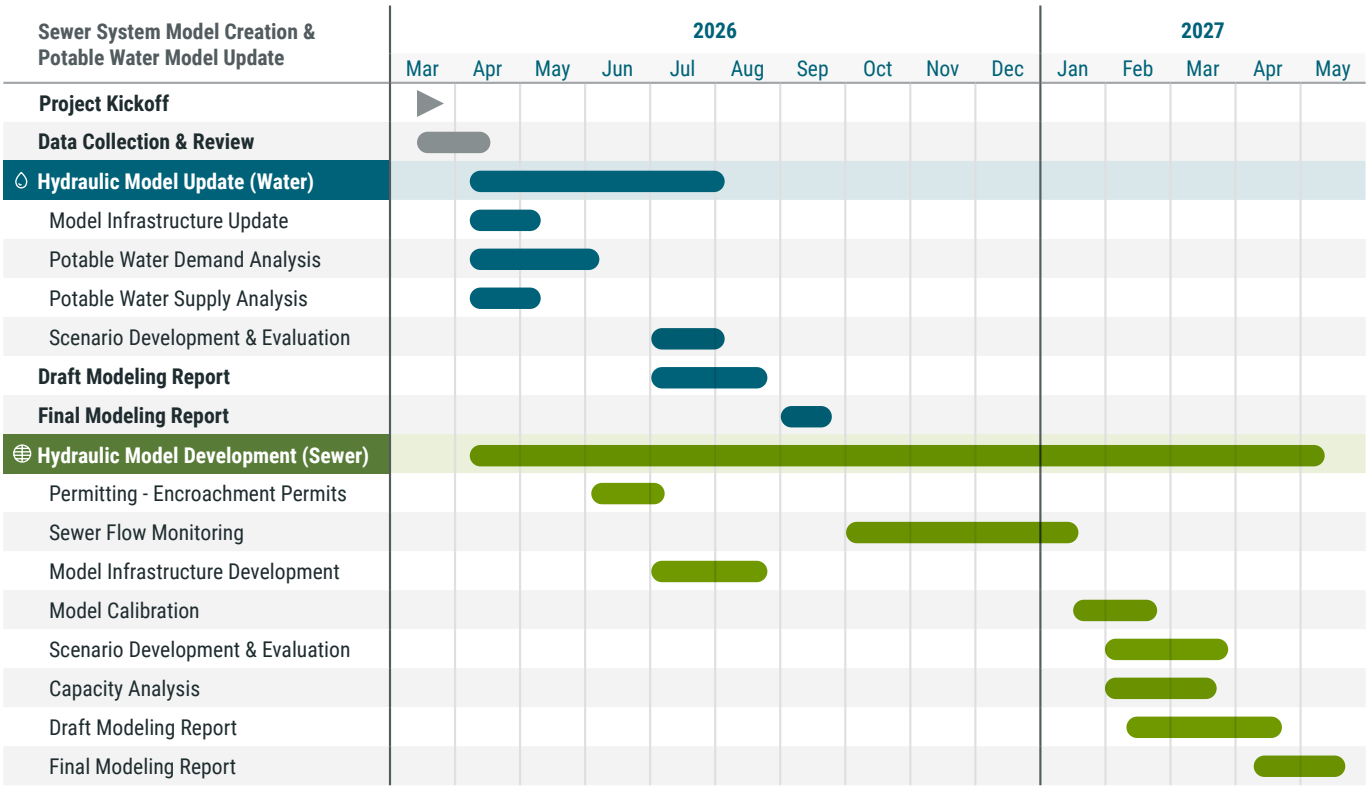
Deliverables:

- Modeling report (draft and final – electronic PDF format)

Assumption:

- It is assumed the current GIS database will be used to build the hydraulic model.
- The Consultant will review sewer system data—including attributes, as-builts, record drawings, and GIS—and provide the District a list of discrepancies for verification. The District will update the GIS within an agreed timeframe, and the Consultant will incorporate these updates into the final model.
- Up to eight flow-monitoring locations will require traffic control, limited to one lane closure per site.
- Wet-weather data is assumed to be collected between Dec. 2026 and Feb. 2027; if no events occur, additional compensation will be requested.
- Fire-flow testing locations will not require traffic control or permits.
- All permit and encroachment fees will be paid by the District. Kennedy Jenks will prepare permit applications, and the District will submit them.

Schedule



Task Durations

Project Kickoff: 1 day

Data Collection and Review: 3 weeks

Hydraulic Model Update (Water): 80 days

- **Model Infrastructure Update:** 1 month
- **Potable Water Demand Analysis:** 2 months
- **Potable Water Supply Analysis:** 1 month
- **Calibration Plan & Calibration:** 3 months
- **Scenario Development & Evaluation:** 1 month
- **Draft Modeling Report (Water):** 2 months
- **Final Modeling Report (Water):** 3 weeks

Hydraulic Model Development (Sewer): 282 days

- **Calibration Plan:** 2 months
- **Permitting – Encroachment Permits:** 1 month
- **Sewer Flow Monitoring:** 2 months
- **Model Infrastructure Development:** 2 months
- **Model Calibration:** 2 weeks
- **Scenario Development & Evaluation:** 2 months
- **Capacity Analysis:** 1 month
- **Draft Modeling Report (Sewer):** 2 months
- **Final Modeling Report (Sewer):** 1 month

H | Legal Issues and Potential Conflict of Interest

There are no pending investigations of our firm, and no enforcement, settlement, or disciplinary actions have been taken within the last five years against our firm or any proposed key personnel. There are no known potential conflicts of interest related to this engagement.

J | Contractual Services Agreement

Kennedy/Jenks Consultants, Inc. does not take any exceptions to the terms and conditions of this RFQ.

Combined: Potable Water & Sewer

Proposal Fee Estimate

Kennedy Jenks

CLIENT Name: Las Virgines Municipal Water District / Joint Powers Authority

PROJECT Description: Potable Water Hydrualic Model Update & Sewer Hydraulic Model Development

Proposal/Job Number: B012170*35613 **Date:** 1/27/2026

	David F	Scott L	Paul C	Adam B	Jennifer O	Salma	Joette J	Masoom D	Marco R	Name Cad	Name Cad	Name Cad	Name Cad	Name PA	Name Adm														
January 1, 2026 Rates Classification:	Eng-Sci-9	Eng-Sci-8	Eng-Sci-7	Eng-Sci-7	Eng-Sci-6	Eng-Sci-5	Eng-Sci-4	Eng-Sci-4	Eng-Sci-2	Sr. CAD-Design	CAD-Design	Sr. CAD-Tech	CAD-Tech	Project Assistant	Admin. Assist.	Total	KJ Labor	KJ Escalation	KJ Assoc. Proj. Costs	Sub K-Flow Solutions	Sub Davis Fire Protection	KJ Sub-Markup	KJ ODCs	KJ ODCs Markup	Total Labor	Total Subs	Total Expenses	Total Labor + Subs + Expenses
Hourly Rate:	$335	$320	$300	$300	$275	$250	$230	$230	$190	$195	$180	$165	$145	$145	$130	Hours	Fees	0%	$0.00	Fees	Fees	5%	Fees	5%				Fees
Task 1 - Project Management, Meetings, and Quality Control/Quality Assurance																													
1.1 Project Management				24										18		42	$9,810	$0	$0			$0		$0	$9,810	$0	$0	$9,810
1.2 - Kick-Off Meeting				2		4	4	4	4							18	$4,200	$0	$0			$0	$45	$2	$4,200	$0	$47	$4,247
1.3 - Project Meeting (12 Meetings)		2	4	18		18	12	18	12							84	$20,920	$0	$0			$0	$536	$27	$20,920	$0	$562	$21,482
1.4 QA/QC	20			4												24	$7,900	$0	$0			$0		$0	$7,900	$0	$0	$7,900
																						$0						
Task 1 - Subtotal	20	2	4	48	0	22	16	22	16	0	0	0	0	18	0	168	$42,830	$0	$0	$0	$0	$0	$580	$29	$42,830	$0	$609	$43,439
Task 2 – Data Collection and Review																													
2.1 - Data Collection and Review (Water)	0	0	0	2	0	8	12	0	0	0	0	0	0	0	0	22	$5,360	$0	$0			$0	$0	$0	$5,360	$0	$0	$5,360
2.2 - Data Collection and Review (Sewer)	0	0	0	2	0	0	0	8	12	0	0	0	0	0	0	22	$4,720	$0	$0			$0	$0	$0	$4,720	$0	$0	$4,720
Task 2 - Subtotal	0	0	0	4	0	8	12	8	12	0	0	0	0	0	0	44	$10,080	$0	$0	$0	$0	$0	$0	$0	$10,080	$0	$0	$10,080
Task 3 – Hydraulic Model																													
Potable Water Hydraulic Model Update	3	1	2	9	4	16	20	84	174	0	0	0	0	0	0	313	$66,705	$0	$0			$438	$0	$0	$66,705	$9,188	$0	$75,893
3.1 - Model Infrastructure Updates		1		1	4			20	32							58	$12,400	$0	$0			$0		$0	$12,400	$0	$0	$12,400
3.2 - Potable Water Demand Analysis	1			1				24	40							66	$13,755	$0	$0			$0		$0	$13,755	$0	$0	$13,755
3.3 - Potable Water Supply Analysis				1				4	6							11	$2,360	$0	$0			$0		$0	$2,360	$0	$0	$2,360
3.4 - Calibration Plan & Model Calibration	2		1	2				24	80							109	$22,290	$0	$0		$8,750	$438		$0	$22,290	$9,188	$0	$31,478
3.5 - Scenario Development & Evaluation			1	2				12	16							31	$6,700	$0	$0			$0		$0	$6,700	$0	$0	$6,700
3.6 - Capacity Analysis				2		16	20									38	$9,200	$0	$0			$0		$0	$9,200	$0	$0	$9,200
Sewer Hydraulic Model Development	3	1	4	18	8	120	264	0	0	0	0	0	0	0	0	418	$100,845	$0	$0			$4,600	$0	$0	$100,845	$96,600	$0	$197,445
3.1 - Model Infrastructure Development		1		4	8	36	80									129	$31,120	$0	$0			$0		$0	$31,120	$0	$0	$31,120
3.2 - Calibration Plan & Model Calibration	2		2	8		40	120									172	$41,270	$0	$0			$0		$0	$41,270	$0	$0	$41,270
3.3 - Sewer Flow Monitoring				2		4	4									10	$2,520	$0	$0	$92,000		$4,600		$0	$2,520	$96,600	$0	$99,120
3.4 - Scenario Development & Evaluation	1		2	2		24	40									69	$16,735	$0	$0			$0		$0	$16,735	$0	$0	$16,735
3.5 - Capacity Analysis				2		16	20									38	$9,200	$0	$0			$0		$0	$9,200	$0	$0	$9,200
Task 3 - Subtotal	6	2	6	27	12	136	284	84	174	0	0	0	0	0	0	731	$167,550	$0	$0	$92,000	$8,750	$5,038	$0	$0	$167,550	$105,788	$0	$273,338
Task 4 – Modeling Report																													
Potable Water Hydraulic Model Report	2	0	3	6	2	0	0	40	76	0	0	0	0	0	0	129	$27,560	$0	$0			$0	$0	$0	$27,560	$0	$0	$27,560
4.1 - Draft Modeling Report	1		2	4	2			32	60							101	$21,445	$0	$0			$0		$0	$21,445	$0	$0	$21,445
4.2 - Final Modeling Report	1		1	2				8	16							28	$6,115	$0	$0			$0		$0	$6,115	$0	$0	$6,115
Sewer Hydraulic Model Report	2	0	3	6	2	40	76	0	0	0	0	0	0	0	0	129	$31,400	$0	$0			$0	$0	$0	$31,400	$0	$0	$31,400
4.1 - Draft Modeling Report	1		2	4	2	32	60									101	$24,485	$0	$0			$0		$0	$24,485	$0	$0	$24,485
4.2 - Final Modeling Report	1		1	2		8	16									28	$6,915	$0	$0			$0		$0	$6,915	$0	$0	$6,915
Task 4 - Subtotal	4	0	6	12	4	40	76	40	76	0	0	0	0	0	0	258	$58,960	$0	$0	$0	$0	$0	$0	$0	$58,960	$0	$0	$58,960
All Tasks Total	**30**	**4**	**16**	**91**	**16**	**206**	**388**	**154**	**278**	**0**	**0**	**0**	**0**	**18**	**0**	**1201**	**$279,420**	**$0**	**$0**	**$92,000**	**$8,750**	**$5,038**	**$580**	**$29**	**$279,420**	**$105,788**	**$609**	**$385,817**

Potable Water Only

Proposal Fee Estimate

Kennedy Jenks

CLIENT Name: Las Virgines Municipal Water District / Joint Powers Authority

PROJECT Description: Potable Water Hydrualic Model Update & Sewer Hydraulic Model Development

Proposal/Job Number: B012170*35613 **Date:** 1/27/2026

	David F	Scott L	Paul C	Adam B	Jennifer O	Salma	Joette J	Masoom D	Marco R	Name Cad	Name Cad	Name Cad	Name Cad	Name PA	Name Adm													
January 1, 2026 Rates **Classification:**	**Eng-Sci-9**	**Eng-Sci-8**	**Eng-Sci-7**	**Eng-Sci-7**	**Eng-Sci-6**	**Eng-Sci-5**	**Eng-Sci-4**	**Eng-Sci-4**	**Eng-Sci-2**	**Sr. CAD-Design**	**CAD-Design**	**Sr. CAD-Tech**	**CAD-Tech**	**Project Assistant**	**Admin. Assist.**	**Total**	**KJ Labor**	**KJ Escalation**	**KJ Assoc. Proj. Costs**	**Sub K-Flow Solutions**	**Sub Davis Fire Protection**	**KJ Sub-Markup**	**KJ ODCs**	**KJ ODCs Markup**	**Total Labor**	**Total Subs**	**Total Expenses**	**Total Labor + Subs + Expenses**
Hourly Rate:	**$335**	**$320**	**$300**	**$300**	**$275**	**$250**	**$230**	**$230**	**$190**	**$195**	**$180**	**$165**	**$145**	**$145**	**$130**	**Hours**	**Fees**	**0%**	**$0.00**	**Fees**	**Fees**	5%	**Fees**	5%				**Fees**
Task 1 - Project Management, Meetings, and Quality Control/Quality Assurance																												
1.1 Project Management				20										18		38	$8,610	$0	$0			$0		$0	$8,610	$0	$0	$8,610
1.2 - Kick-Off Meeting				2				4	6							12	$2,660	$0	$0			$0	$45	$2	$2,660	$0	$47	$2,707
1.3 - Project Meeting (12 Meetings)			2	4	16			18	16							56	$13,820	$0	$0			$0	$536	$27	$13,820	$0	$562	$14,382
1.4 QA/QC	16			3												19	$6,260	$0	$0			$0		$0	$6,260	$0	$0	$6,260
																						$0						
Task 1 - Subtotal	16	2	4	41	0	0	0	22	22	0	0	0	0	18	0	125	$31,350	$0	$0	$0	$0	$0	$580	$29	$31,350	$0	$609	$31,959
Task 2 – Data Collection and Review																												
2.1 - Data Collection and Review (Water)	0	0	0	2	0	12	20	0	0	0	0	0	0	0	0	34	$8,200	$0	$0			$0	$0	$0	$8,200	$0	$0	$8,200
Task 2 - Subtotal	0	0	0	2	0	12	20	0	0	0	0	0	0	0	0	34	$8,200	$0	$0	$0	$0	$0	$0	$0	$8,200	$0	$0	$8,200
Task 3 – Hydraulic Model																												
Potable Water Hydraulic Model Update	3	1	2	9	4	16	20	88	178	0	0	0	0	0	0	321	$68,385	$0	$0			$438	$0	$0	$68,385	$9,188	$0	$77,573
3.1 - Model Infrastructure Updates		1		1	4			20	32							58	$12,400	$0	$0			$0		$0	$12,400	$0	$0	$12,400
3.2 - Potable Water Demand Analysis	1			1				24	40							66	$13,755	$0	$0			$0		$0	$13,755	$0	$0	$13,755
3.3 - Potable Water Supply Analysis				1				4	6							11	$2,360	$0	$0			$0		$0	$2,360	$0	$0	$2,360
3.4 - Calibration Plan & Model Calibration	2		1	2				24	80							109	$22,290	$0	$0		$8,750	$438		$0	$22,290	$9,188	$0	$31,478
3.5 - Scenario Development & Evaluation			1	2				16	20							39	$8,380	$0	$0			$0		$0	$8,380	$0	$0	$8,380
3.6 - Capacity Analysis				2		16	20									38	$9,200	$0	$0			$0		$0	$9,200	$0	$0	$9,200
Task 3 - Subtotal	3	1	2	9	4	16	20	88	178	0	0	0	0	0	0	321	$68,385	$0	$0	$0	$8,750	$438	$0	$0	$68,385	$9,188	$0	$77,573
Task 4 – Modeling Report																												
Potable Water Hydraulic Model Report	2	0	3	6	2	0	0	40	76	0	0	0	0	0	0	129	$27,560	$0	$0			$0	$0	$0	$27,560	$0	$0	$27,560
4.1 - Draft Modeling Report	1		2	4	2			32	60							101	$21,445	$0	$0			$0		$0	$21,445	$0	$0	$21,445
4.2 - Final Modeling Report	1		1	2				8	16							28	$6,115	$0	$0			$0		$0	$6,115	$0	$0	$6,115
Task 4 - Subtotal	2	0	3	6	2	0	0	40	76	0	0	0	0	0	0	129	$27,560	$0	$0	$0	$0	$0	$0	$0	$27,560	$0	$0	$27,560
All Tasks Total	**21**	**3**	**9**	**58**	**6**	**28**	**40**	**150**	**276**	**0**	**0**	**0**	**0**	**18**	**0**	**609**	**$135,495**	**$0**	**$0**	**$0**	**$8,750**	**$438**	**$580**	**$29**	**$135,495**	**$9,188**	**$609**	**$145,292**

Sewer Only

Proposal Fee Estimate

Kennedy Jenks

CLIENT Name: Las Virgines Municipal Water District / Joint Powers Authority

PROJECT Description: Potable Water Hydrualic Model Update & Sewer Hydraulic Model Development

Proposal/Job Number: B012170*35613 **Date:** 1/27/2026

	David F	Scott L	Paul C	Adam B	Jennifer O	Salma	Joette J	Masoom D	Marco R	Name Cad	Name Cad	Name Cad	Name Cad	Name PA	Name Adm													
January 1, 2026 Rates **Classification:**	**Eng-Sci-9**	**Eng-Sci-8**	**Eng-Sci-7**	**Eng-Sci-7**	**Eng-Sci-6**	**Eng-Sci-5**	**Eng-Sci-4**	**Eng-Sci-4**	**Eng-Sci-2**	**Sr. CAD-Design**	**CAD-Design**	**Sr. CAD-Tech**	**CAD-Tech**	**Project Assistant**	**Admin. Assist.**	**Total**	**KJ Labor**	**KJ Escalation**	**KJ Assoc. Proj. Costs**	**Sub K-Flow Solutions**	**Sub Davis Fire Protection**	**KJ Sub-Markup**	**KJ ODCs**	**KJ ODCs Markup**	**Total Labor**	**Total Subs**	**Total Expenses**	**Total Labor + Subs + Expenses**
Hourly Rate:	**$335**	**$320**	**$300**	**$300**	**$275**	**$250**	**$230**	**$230**	**$190**	**$195**	**$180**	**$165**	**$145**	**$145**	**$130**	**Hours**	**Fees**	**0%**	**$0.00**	**Fees**	**Fees**	5%	**Fees**	5%				**Fees**
Task 1 - Project Management, Meetings, and Quality Control/Quality Assurance																												
1.1 Project Management				20										18		38	$8,610	$0	$0			$0		$0	$8,610	$0	$0	$8,610
1.2 - Kick-Off Meeting				2		4	6									12	$2,980	$0	$0			$0	$45	$2	$2,980	$0	$47	$3,027
1.3 - Project Meeting (12 Meetings)			2	4	16		18	16								56	$14,820	$0	$0			$0	$536	$27	$14,820	$0	$562	$15,382
1.4 QA/QC	16				3											19	$6,260	$0	$0			$0		$0	$6,260	$0	$0	$6,260
																						$0						
Task 1 - Subtotal	16	2	4	41	0	22	22	0	0	0	0	0	0	18	0	125	$32,670	$0	$0	$0	$0	$0	$580	$29	$32,670	$0	$609	$33,279
Task 2 – Data Collection and Review																												
2.1 - Data Collection and Review (Sewer)	0	0	0	2	0	0	0	12	20	0	0	0	0	0	0	34	$7,160	$0	$0			$0	$0	$0	$7,160	$0	$0	$7,160
Task 2 - Subtotal	0	0	0	2	0	0	0	12	20	0	0	0	0	0	0	34	$7,160	$0	$0	$0	$0	$0	$0	$0	$7,160	$0	$0	$7,160
Task 3 – Hydraulic Model																												
Sewer Hydraulic Model Development	3	1	4	18	8	126	284	0	0	0	0	0	0	0	0	444	$106,945	$0	$0			$4,600	$0	$0	$106,945	$96,600	$0	$203,545
3.1 - Model Infrastructure Development		1		4	8	36	80									129	$31,120	$0	$0			$0		$0	$31,120	$0	$0	$31,120
3.2 - Calibration Plan & Model Calibration	2		2	8		40	120									172	$41,270	$0	$0			$0		$0	$41,270	$0	$0	$41,270
3.3 - Sewer Flow Monitoring				2		4	4									10	$2,520	$0	$0	$92,000		$4,600		$0	$2,520	$96,600	$0	$99,120
3.4 - Scenario Development & Evaluation	1		2	2		30	60									95	$22,835	$0	$0			$0		$0	$22,835	$0	$0	$22,835
3.5 - Capacity Analysis				2		16	20									38	$9,200	$0	$0			$0		$0	$9,200	$0	$0	$9,200
Task 3 - Subtotal	3	1	4	18	8	126	284	0	0	0	0	0	0	0	0	444	$106,945	$0	$0	$92,000	$0	$4,600	$0	$0	$106,945	$96,600	$0	$203,545
Task 4 – Modeling Report																												
Sewer Hydraulic Model Report	2	0	3	6	2	44	76	0	0	0	0	0	0	0	0	133	$32,400	$0	$0			$0	$0	$0	$32,400	$0	$0	$32,400
4.1 - Draft Modeling Report	1		2	4	2	36	60									105	$25,485	$0	$0			$0		$0	$25,485	$0	$0	$25,485
4.2 - Final Modeling Report	1		1	2		8	16									28	$6,915	$0	$0			$0		$0	$6,915	$0	$0	$6,915
Task 4 - Subtotal	2	0	3	6	2	44	76	0	0	0	0	0	0	0	0	133	$32,400	$0	$0	$0	$0	$0	$0	$0	$32,400	$0	$0	$32,400
All Tasks Total	**21**	**3**	**11**	**67**	**10**	**192**	**382**	**12**	**20**	**0**	**0**	**0**	**0**	**18**	**0**	**736**	**$179,175**	**$0**	**$0**	**$92,000**	**$0**	**$4,600**	**$580**	**$29**	**$179,175**	**$96,600**	**$609**	**$276,384**



Adam Bugielski, PE

Project Manager

Kennedy Jenks

Professional Summary

Adam Bugielski is a Project Manager with 14 years of experience delivering water and wastewater infrastructure projects. His work includes hydraulic modeling, program management, inter-agency coordination, and support for capital improvement programs. Adam has managed potable water and sewer projects involving pump stations, interconnections, treatment facility upgrades, and system analyses for agencies throughout Ventura County and California. Adam brings a strong technical foundation in modeling, a proven track record delivering clear and actionable planning documents, and the leadership necessary to guide modeling efforts from kickoff through final reporting.

Years of Experience

14

Education

BS, Civil Engineering, California State University, Northridge, CA, 2013

Registrations

Professional Engineer - Civil - California (89065)

Memberships/ Affiliations

American Public Works Association (APWA)

Ventura County Chapter (Scholarship Chair)

American Society of Civil Engineers (ASCE)

WateReuse Association

Project Experience

Casitas-Ventura Interconnect Hydraulic Analysis, City of Ventura, CA | *Project Manager*

The analysis involved hydraulically modeling the water system for the City of Ventura to evaluate the potential impacts of delivering water to the Casitas Municipal Water District (MWD). The analysis was conducted at multiple connection points to ensure optimum efficiency and was summarized in a memorandum to Casitas MWD. Additionally, potential sites for booster pump stations to facilitate water transport from Ventura to Casitas were identified.

Regional State Water Interconnection, Ventura Water, Ventura, CA | *Project Manager*

Assisted with the regional state water interconnect for the City of Ventura. Tasks included hydraulic analysis of connecting to the State Water Project to receive the City's State Water allocation. Analysis also included determining the available water supply to distribute to nearby water districts for domestic and emergency purposes.

Infrastructure Review of Development Projects, Ventura Water, Ventura, CA | *Owner's Project Manager/Engineer*

Ongoing infrastructure review for all development projects within the City of Ventura. Infrastructure reviews include analyzing the water and sewer infrastructure surround a potential development project to determine impacts and potential deficiencies in water supply, storage, distribution or sewer collection and treatment.

Wastewater Master Plan Update, Ventura Water, Ventura, CA | *Owner's Project Manager/Project Manager*

The project developed a new wastewater master plan for the City of Ventura. The comprehensive master plan included an evaluation of 300 miles of pipeline, 14 lift stations, and a treatment facility. The plan encompassed a condition assessment, a hydraulic model development, a capacity and deficiency analysis, and the development of the recommended Capital Improvement Program.

Water Master Plan Update, Ventura Water, Ventura, CA | *Owner's Project Manager/Project Manager*

This project consisted of developing a new water master plan for the City of Ventura. The full master plan included evaluation of 380 miles of pipeline, 21 pump stations, 32 tanks, 10 wells, and three treatment facilities. Included in the master plan was a condition assessment, a hydraulic model development, a capacity/deficiency analysis, and the development of the recommended Capital Improvement Program.

Water Master Plan Update, City of Santa Paula, Santa Paula, CA | *Project Manager*

Conducted a full master plan update to be utilized for future capital improvement project planning. Included in the master plan was a condition assessment of pump station, storage, and treatment facilities, a hydraulic model development, a capacity/deficiency analysis, and the development of the recommended Capital Improvement Program.

Wastewater Master Plan Update, City of Santa Paula, Santa Paula, CA | *Project Manager*

Conducted a full master plan update to be utilized for future capital improvement project planning. Included in the master plan was a condition assessment of lift stations and treatment facilities, a hydraulic model development, a capacity/deficiency analysis, and the development of the recommended Capital Improvement Program.

Program Management, City of Camarillo, CA | *Project Manager*

Assisted the City with implementing and delivering capital improvement projects related to the water and wastewater system. Project managed through design and construction included wastewater treatment projects, wastewater lift stations, hydraulic modeling, generator replacement, and potable water pump stations.

Water Line Interconnect – Eastside to Westside, City of Ventura, CA | *Owner's Project Manager*

This project will serve water customers on Ventura's west end in the event all water supply sources are significantly reduced or eliminated. The planning phase covers a 24-inch diameter steel transmission line from east to west across the City in two pipeline segments. The completed system will include 4.5 miles of 24-inch steel pipe and two pressure-reducing stations.

Laguna Road Pipeline and Booster Pump Station, United Water Conservation District, Oxnard, CA | *Project Manager*

The project involved the design of two projects to install a booster pump station and pipeline to interconnect United Water Conservation District and Pleasant Valley County Water District. This project will deliver recycled water from the City of Oxnard's Advanced Water Purification Facility to UWCD's Pumping Trough Pipeline, which supplies non-potable irrigation water to agricultural customers.

VenturaWaterPure Program Management, City of Ventura, Ventura, CA | *Principal Engineer*

The project involved several high-profile initiatives that comprised the VenturaWaterPure program, a potable reuse project. The team managed projects including the feasibility study and design of a 14-inch ocean outfall and pump station, a 6-million-gallon storage tank, an advanced water purification facility, and injection wells. As part of this program, the team conducted a feasibility study to replace the existing traditional activated sludge water reclamation facility with a membrane bioreactor.



Paul Chau, PE

Technical Advisor

Kennedy Jenks

Professional Summary

Paul Chau is a Technical Advisor with 18 years of experience leading hydraulic modeling and master planning efforts for potable water, recycled water, and wastewater systems throughout California. He leads KJ's Master Planning Group and has directed or managed numerous projects involving hydraulic model development, calibration, scenario evaluation, flow monitoring integration, and the creation of GIS-based planning tools. Paul has delivered sewer and potable water master plans, wastewater hydraulic models, recycled water system evaluations, groundwater recharge feasibility studies, and system-wide capacity analyses for agencies including Las Virgenes Triunfo JPA, Calleguas MWD, the City of Ventura, United Water Conservation District, and the City of Thousand Oaks.

Years of Experience

18

Education

BS, Environmental Engineering and Science, University of California, Los Angeles, 2006

MS, Civil and Environmental Engineering, Stanford University, 2007

Registrations

Professional Engineer - Civil - California (75784)

Project Experience

Hydraulic Model Update & Water Master Plan, City of Thousand Oaks, CA | *Technical Advisor*

Served as a technical advisor for the preparation of the City of Thousand Oaks' (City) 2025 Master Plan Update. The purpose of the project is to identify infrastructure improvements required for the City's water distribution system.

Wastewater Master Plan Update, City of Thousand Oaks, CA | *Project Manager*

Served as a project manager for the preparation of the City of Thousand Oaks' (City) Wastewater Master Plan Update. The purpose of the project is to identify infrastructure improvements required for the City's sewer collection system.

Sewer and Potable Water Master Plan, City of Carlsbad, CA | *Project Director*

The update to the City's sewer and water master plans included updating, calibrating, and utilizing a hydraulic model to evaluate system deficiencies. Also included flow monitoring and condition assessments of the existing system. A bespoke GIS-based tool will be provided to help the City track new developments and the associated system impacts in a clear and organized manner. A risk-based prioritization approach was used to organize the City's CIP.

2023 Wastewater Master Plan, Crescenta Valley Water District, La Crescenta, CA | *Project Director*

KJ worked with Crescenta Valley Water District (District) to develop their 2023 Wastewater Master Plan. KJ performed an in-depth Business Risk and Vulnerabilities Assessment for each component of the District's wastewater collection system, developing a complete asset register, and prioritized system improvement projects based on the criticality of the asset and the likelihood of failure. Completed a wastewater hydraulic model build and calibration and used the model to corroborate both known and unknown system deficiencies to help inform project prioritization. Developed project costs for each identified system improvement and compiled the results of the study into the 2023 Wastewater Master Plan.

Pure Water Project Title XVI Feasibility Study, Las Virgenes Municipal Water District, Calabasas, CA | *Project Engineer*

The Las Virgenes–Triunfo Joint Powers Authority (JPA) implemented the Pure Water Program, which provided a new water supply for the region through a surface water augmentation project delivering advanced treatment of recycled water via a 6 mgd treatment plant. The treated product water was designed to supplement the Las Virgenes Reservoir. As part of the feasibility study, responsibilities included confirming sizing requirements for the advanced water treatment plant through monthly analyses of recycled water supplies and demands, developing pipeline alignments, evaluating supplemental supplies from stormwater and brine concentration, and preparing updated cost estimates. The project was funded by the Bureau.

Water Master Plan, City of Crescent City, CA | *Project Manager*

Led preparation of the City of Thousand Oaks' (City) 2018 Master Plan Update to identify infrastructure improvements required for the City's water distribution system. Utilized the hydraulic model to perform a water age analysis of the system to identify areas that potentially can have low disinfection levels.

Water and Sewer Master Plans, Rosamond Community Services District, Rosamond, CA | *Project Manager*

KJ developed a sewer master plan for Rosamond Community Services District (RCSD), which provides sewer, water, park, and lighting services for the City of Rosamond in Antelope Valley. The District manages a sewer collection system consisting of 66 miles of gravity mains ranging from 6-inch to 48-inch in diameter and one sewer lift station. The collection system discharges to a wastewater treatment plant owned and operated by the District. RCSD's water supply comes from local groundwater and imported water from Antelope Valley East Kern Water Agency (AVEK). An InfoWater hydraulic model was created for the water system, and an InfoSewer hydraulic model was created for the sewer system to evaluate hydraulic bottlenecks and develop a Capital Improvement Program.

Water, Recycled Water, and Sewer Master Plans, City of South Gate, South Gate, CA | Project Manager

KJ prepared a Water Master Plan, Recycled Water Master Plan, and Sewer Master Plan as three standalone documents for the City. The goal was to develop capital improvement programs for the City's potable water, recycled water and sewer systems through build-out. KJ constructed and calibrated three models using the City's GIS and SCADA system. Other tasks included potable water demand/sewer flow projections and recycled water market assessment, pipeline capacity analysis, supply/pumping/storage deficiency analysis, fire flow analysis, cast-iron pipeline replacement program, and CIP development.

Pure Water Project Title XVI Feasibility Study, Las Virgenes Municipal Water District, Calabasas, CA | *Project Engineer*

The Las Virgenes–Triunfo Joint Powers Authority (JPA) implemented the Pure Water Program, which provided a new water supply for the region through a surface water augmentation project delivering advanced treatment of recycled water via a 6 mgd treatment plant. The treated product water was designed to supplement the Las Virgenes Reservoir. As part of the feasibility study, responsibilities included confirming sizing requirements for the advanced water treatment plant through monthly analyses of recycled water supplies and demands, developing pipeline alignments, evaluating supplemental supplies from stormwater and brine concentration, and preparing updated cost estimates. The project was funded by the Bureau of Reclamation and was approved without comment, which was a rare achievement.



David Ferguson, PhD, PE, BCEE

QA/QC

Kennedy Jenks

Professional Summary

David Ferguson provides QA/QC for water and wastewater planning and modeling projects, bringing 46 years of experience in water supply infrastructure, master planning, and system evaluations. His QA/QC role includes technical review of potable water, recycled water, and sewer master plans, evaluation of hydraulic analyses, and oversight of modeling-based planning efforts used to identify system deficiencies and support capital improvement programs. His background in evaluating planning assumptions, hydraulic results, and long-term infrastructure recommendations enables him to provide an independent, senior-level technical review to provide modeling accuracy, documentation quality, and consistency with agency planning objectives.

Years of Experience

46

Education

BS, Civil Engineering, University of Massachusetts, 1980

BS, Environmental Science, University of Massachusetts, 1977

MBA, Business Management, California State University, San Bernardino, 1985

PHD, Executive Management, Claremont Graduate University, 1993

Registrations

Professional Engineer - Civil - California (34626)

Memberships/ Affiliations

American Water Works Association (AWWA)

American Academy of Environmental Engineers & Scientists (AAEES)

Project Experience

Wastewater Master Plan, Crescenta Valley Municipal Water District, La Crescenta, CA | *QA/QC Study Reviewer*

KJ prepared the 2023 Wastewater Master Plan for Crescenta Valley Water District (CVWD), delivering a comprehensive condition and capacity assessment grounded in field data, projections, and hydraulic modeling. This included field assessments, flow monitoring, and a review of population and development projections. The team analyzed existing wastewater flows, evaluated system capacity, identified deficiencies, and developed preferred solutions to address them. Findings from multiple data sources were integrated to provide a holistic understanding of system performance.

Focused Water System Master Plan, City of Riverside, CA | *Technical/QA/QC*

KJ worked with Riverside Public Utilities (RPU) to evaluate potential improvements that can be made to their water distribution system in the Downtown Riverside area to improve fire flow capacity and overall system pressures. Additionally, KJ is evaluating the capacities of potential interties between RPU and other potential neighboring retailers.

Water Master Plan Technical Review, City of Riverside, CA | Project Manager

Served as Project Manager for the Technical Review and Hydraulic Analysis and Optimization of the City's in-house 2010 Water Master Plan Update. Through additional analysis and optimization, reduced the 20-year capital improvement program from $125 to $103 million, saving the City $22 million.

Urban Water Master Plan Update, City of Thousand Oaks, Thousand Oaks, CA | *Project Manager*

Served as a project manager for preparation of the 2015 Master Plan Update. The purpose of the project is to identify infrastructure improvements required for the City's water distribution system. In addition, the hydraulic model is utilized to perform a water age analysis of the system, in order to identify areas of the system that potentially can have low disinfection levels. The project resulted in the installation

of several Reservoir Control Systems (RCSs), one in each of two 5 MG reservoirs, to provide continuous reservoir mixing and on-line disinfectant residual monitoring, chlorine and ammonia feed, and residual control.

Water and Sewer Master Plans, Rosamond Community Services District, Rosamond, CA | *Principal-In-Charge*

KJ is developing water and sewer master plans for the District, which provides water, sewer, park, and lighting services for the City of Rosamond in Antelope Valley. An InfoWater hydraulic model was created for the water system and an InfoSewer hydraulic model was created for the sewer system to evaluate hydraulic bottlenecks and develop a Capital Improvement Program.

Potable Water Master Plan, Calleguas Municipal Water District, Thousand Oaks, CA | *Project Manager*

The purpose of the Potable Water Master Plan Update is to develop a comprehensive plan by which Calleguas can accommodate projected purveyor demands and changing operating conditions while continuing to cost effectively provide a reliable water supply to the 19 purveyors within Calleguas' service area.

Water, Recycled Water, and Sewer Master Plans, City of South Gate, South Gate, CA | *Project Manager*

Responsible for managing the preparation of a Water Master Plan, Recycled Water Master Plan, and Sewer Master Plan as three standalone documents to address water demands, recycled water demands, and gravity sewer flows. Each document evaluates the immediate, short-term (5-year), and ultimate deficiencies and establish the infrastructure requirements.

Well 201 Volatile Organic Compound (VOC) Improvements, Santa Clarita Valley Water Agency, Santa Clarita, CA | *QA/QC*

Assessed the addition of VOC (TCE) treatment at the existing well site (Well 201), including integration with existing Perchlorate (IX) treatment. Planning services included developing design criteria for VOC treatment, hydraulics assessments, site layouts at the Well 201 site (plus up to 2 alternative sites), preliminary design drawings, PDR, OPCC and 3-D renderings. Final design included the addition of VOC treatment: two (2) lead-lag trains of GAC vessels sized to treat a design flow of 2,000 gpm. The treatment equipment includes a new backwash waste storage tank and backwash waste pumps. Design also included sizing of a new pump to accommodate head loss from the addition of the GAC vessels to treat VOC contamination.

Perris North Basin Groundwater Program, Eastern Municipal Water District, Perris, CA | *QA/QC Reviewer*

Preliminary design for three separate groundwater treatment sites in the Perris North Basin. Designed a centralized treatment facility to treat 1,240 gpm of groundwater from two (2) wells for the Moreno Valley Area that included GAC for PCE removal, single-use IX for perchlorate removal and staggered bed IX for nitrate removal. Designed chemical feed systems to provide a chloramine residual disinfectant, and well equipping/wellheads, and a product water pump station/clearwell. Designed a 2,300 gpm centralized treatment facility for the Cactus Corridor, including GAC for PCE removal, and a 650 gpm GAC treatment facility for the South Area Well 204.

Canyon Lake Water Treatment Plant Condition Assessment and Master Plan, Elsinore Valley Municipal Water District, Lake Elsinore, CA | *Project Manager*

Development of a planning document that will serve as a roadmap for future facility needs and upgrades, and phasing of a capital improvement program. The project includes a lake water quality improvement assessment, including hydrodynamic modeling of Canyon Lake, a comprehensive condition assessment of the CLWTP, treatment performance evaluation of the plant under various water quality conditions, process alternatives evaluation, and solids handling evaluation.



Salma Taha

Sewer Modeling Lead

Kennedy Jenks

Professional Summary

Salma Taha is a highly skilled hydraulic modeling engineer with 14 years of experience in diverse water and wastewater engineering projects, including treatment and CSO collection systems. She is proficient in a wide range of modeling software programs, such as InfoWater Pro, InfoSWMM, ArcPro, Civil3D, InfoWorks, WaterGEMS, SewerGEMS, Aquatwin Sewer, HydroCAD, ArcGIS, and PCSWMM. Her expertise in advanced data evaluation and visualization ensures accurate and efficient project outcomes, making her an invaluable asset in the field of hydraulic engineering. She supports water and wastewater modeling tasks for Master Plans, applying advanced tools for capacity assessments, calibration, and system optimization. Her work includes dry and wet weather simulations, inflow and infiltration (I&I) evaluations, and fire flow analyses for agencies across the U.S. and internationally. Salma excels at translating complex data into actionable insights that directly inform long-range planning and infrastructure investment decisions.

Years of Experience

14

Education

BS, Civil Engineering, American University of Sharjah, 2010

Project Experience

Wastewater Collection Master Plan Update, City of Thousand Oaks, CA | *Lead Hydraulic Modeler*

Utilized the City's As-Built data to develop the collection system. Built and calibrated the wastewater hydraulic model for existing and future scenarios using AquaTwin Sewer. Developed diurnal flow patterns for dry weather flow and RTK hydrographs for wet weather flow. The model was used to assess current system demands, capacities, and future needs, as well as to identify necessary system improvements. This analysis also included I&I analysis.

2023 Wastewater Master Plan, Crescenta Valley Water District, La Crescenta, CA | *Hydraulic Modeler*

Collaborated with the District to create their Wastewater Master Plan. Built and calibrated the wastewater hydraulic model for existing and future dry weather and wet weather flow analysis using InfoSWMM. Prioritized system enhancements based on system criticality and failure probabilities. Conducted a comprehensive analysis of existing and projected conditions, including infiltration and inflow assessment.

Potable Water and Sewer Master Plan Updates, Carlsbad Municipal Water District, CA | *Lead Hydraulic Modeler*

Utilized the City's As-Built data to develop the collection system. Built and calibrated the wastewater hydraulic model for existing and future scenarios using AquaTwin Sewer. Developed diurnal flow patterns for dry weather flow and RTK hydrographs for wet weather flow. The model was used to assess current system demands, capacities, and future needs, as well as to identify necessary system improvements. This analysis also included I&I analysis.

Port Angeles Wastewater Modeling Support Services, Port Angeles, WA | *Project Manager*

Served as a project manager for on-call wastewater hydraulic modeling services for the City of Port Angeles. Responsible for analyzing and reviewing the hydraulic modeling results using Aquatwin Sewer for the developer-submitted sewer capacity analyses to ensure adequate system capacity for current and future development.

Water and Recycled Water Hydraulic Modeling Services, Carlsbad Municipal Water District, Carlsbad, CA | *Hydraulic Modeler*

Assessed system pressures and available fire flows for various Water Availability Form (WAF) requests received from developers. Used InfoWater Pro to analyze and identify locations with inadequate fire flows. Additionally, supported the update of the City's sewer and water master plans through flow monitoring and condition assessments of the existing infrastructure. A custom GIS-based tool was developed to help the City clearly and efficiently track new developments and their impacts on the system. A risk-based prioritization approach was also implemented to guide the organization of the City's Capital Improvement Plan (CIP).

Recycled Water Facilities Master Plan Update (RWFMP) Update, Eastern Municipal Water District, Perris, CA | *Hydraulic Modeler*

Update to the existing hydraulic model to reflect recent projects and calibrate the model using flow data from the advanced metering infrastructure (AMI) installed by the District. Updated supply and demand projections to provide an integrated, strategic planning guidance tool with analysis in key areas to guide infrastructure investment decisions in the near term for the recycled water system.

LakePointe Development Gravity Sewer Design and ESDC, Brookfield Residential Properties, Federal Way, WA | *Modeling Specialist*

Development of a hydraulic model using InfoSWMM to assess the feasibility of using Cured-In-Place Pipe (CIPP) for the gravity sanitary sewer serving the Lake Pointe Development in the City of Covington. Evaluating and analyzing the anticipated impacts on pipe design flows and design standards, as well as assessing pipe capacities to determine the suitability of CIPP.

General Sewer Plan Update, City of Ellensburg, WA, Ellensburg, WA | *Hydraulic Modeler*

Worked with the City to develop their Wastewater Master Plan and build a hydraulic collection system model using Aquatwin Sewer, the GIS database. This model was calibrated and analyzed for system capacity and identified potential deficiencies and CIP projects needed to resolve capacity issues. The analysis included infiltration and inflow assessment.

Wastewater Comprehensive Plan Update, City of Bremerton, Washington, Bremerton, WA | *Modeling Specialist*

Development of a hydraulic combined collection system model to assess the projected flows through the Crosstown Pipeline, including the flow from the Central Bremerton force main. This model is used to calibrate and analyze multiple flow scenarios to identify future capacity limitations within these major trunklines, specific to the basins modeled.

Ten Mile Creek Regional Wastewater System TM-1 Relief Interceptor, Phase 2B, Trinity River Authority of Texas, Arlington, TX | *Modeling Specialist*

A hydraulic analysis was developed to confirm the siphon pipe design and sizing at two inverted siphons. The analysis is performed for both dry and wet weather conditions and includes sedimentation analysis.



Masoom Desai, EIT

Potable Water Modeling Lead

Kennedy Jenks

Professional Summary

Masoom Desai specializes in hydraulic modeling, water system planning and feasibility studies, grant applications/administration, and urban water management plans. She has worked on a diverse set of modeling projects using InfoWater, ranging from conceptual-level feasibility studies to master plans and basis of design reports. Masoom is highly adept at analyzing and processing large quantities of data. She has hands-on experience in developing demand/supply projections, high-level cost estimates, and working with complex spreadsheets and GIS databases. Masoom is detail-oriented, responsive, and proactive.

Years of Experience

5

Education

BS, Civil Engineering, Birla Institute of Technology and Science, Pilani, 2017

MS, Biological Sciences, Birla Institute of Technology and Science, Pilani, 2017

MS, Environmental Engineering, Stanford University, 2020

Registrations

Engineer-in-Training (178394)

Project Experience

Potable Water Hydraulic Model Update, City of Thousand Oaks, Thousand Oaks, CA | *Project Manager*

As part of the 2024 potable hydraulic model update for the City of Thousand Oaks, Masoom led the model build for the City's water distribution system using Aquanuity's AquaTwin Water software. This involved using the City's existing geodatabase to create a new model, allocating the latest demand data and updating pump and valve controls. The model is also being utilized for the City's ongoing fire flow simulations.

Sewer and Potable Water Master Plan, City of Carlsbad, Carlsbad, CA | *Project Manager/Project Engineer (Potable Master Plan)*

As part of an On-Call contract, KJ's scope included calibrating the water and sewer hydraulic models, aggregating data on existing and proposed future developments in the service area, and developing dynamic CIP programs that will meet the City's needs for the next 25 years. KJ is currently updating the City's sewer and water master plans, which include updating, calibrating, and utilizing sewer and potable hydraulic models to evaluate system deficiencies. This project built a development tracker tool to stay up to date with the status of ongoing developments and proposed/future developments. Additionally, this project focused on integrating feedback from the water and sewer operations and maintenance team so that the CIPs addressed all known infrastructure and operational issues and had the highest chance of acceptance by the stakeholders at all levels.As the technical lead for the potable water master plan, Masoom is updating the model to reflect 2022-2024 demands, performing a 72-hour model calibration, and evaluating both existing and future system conditions. Masoom is also developing future demand forecasts based on a review of projected near-term and long-term development growth, as well as regional/state housing regulations.

Potable Hydraulic Model Phase 1 and 2, City of Lakewood, Lakewood, CA | *Project Manager*

KJ updated and enhanced the City's AquaTwin Water hydraulic model by recalibrating demands, integrating recent billing and GIS data, and refining well and booster pump operations using pump curve and SCADA inputs. The team developed both

steady-state and extended period simulation scenarios, validated static pressures, created a systemwide diurnal demand pattern, and resolved model discrepancies. This work resulted in a stable, accurate hydraulic model that supported reliable system planning and informed ongoing operational decision-making.

InfoWater Pro Hydraulic Model Updates, City of Riverside, Riverside, CA | *Hydraulic Modeling*

As part of Riverside Public Utilities' Focused Water Master Plan (2021), KJ updated the projected water demands and maximum day demand (MDD) peaking factors based on the 2020 Urban Water Management Plan demand projections. KJ is currently tasked with updating the InfoWater Pro hydraulic model to reflect the latest (2022) demands, re-evaluating model peaking factors, and making recommendations for long-term extended-period simulations.

Recycled Water Facilities Master Plan Update (RWFMP) Update, Eastern Municipal Water District, Perris, CA | *Hydraulic Modeling*

As part of the ongoing Recycled Water Facilities Master Plan (RWFMP) update, KJ is updating the Eastern Municipal Water District's (EMWD) existing InfoWater Pro hydraulic model to reflect recent developments and calibrate the model with system SCADA data and AMI billing data. The calibrated hydraulic model will be used by EMWD to evaluate the system's capacity for proposed future developments. Providing model calibration support and also developing diurnal curves using the latest customer AMI data.

Indian Wells Valley Groundwater Authority Connection Analysis, Antelope Valley-East Kern Water Agency, Palmdale, CA | *Hydraulic Modeling*

KJ worked with Antelope Valley-East Kern Water Agency (AVEK) to evaluate the system impacts of connecting their California City feeder to IWVGA's service area to transfer the State Water Project supply. Led the hydraulic modeling effort to evaluate the impacts of connecting three potential tie-in locations to AVEK's pipeline capacities.

PREP Concept Study, Phase 3, Silicon Valley Clean Water, Redwood City, CA | *Hydraulic Modeling*

PureWater Peninsula (previously PREP/SPRP) is an ongoing multi-year, regionwide indirect potable reuse (IPR) effort to deliver purified water from the planned PureWater Peninsula Advanced Water Purification Facility to Crystal Springs Reservoir. KJ has been working with SVCW, SFPUC, the City of San Mateo, and other regional parties through various phases of this project. Developed a spreadsheet water balance model to simulate RWS supply patterns and estimate available storage for purified water in the reservoir and performed preliminary water quality analysis during the initial planning phase of the project. Led the hydraulic modeling effort during the BODR phase to evaluate each of the proposed alternatives using SFPUC's existing InfoWater Pro model.

Redwood City Retail Customer Feasibility Study, San Francisco Public Utilities Commission, San Francisco, CA | *Hydraulic Modeling*

Conducted hydraulic modeling to evaluate the feasibility of transferring retail customers served by SFPUC to the Redwood City Water Distribution System. Responsible for review of existing system infrastructure and updating Redwood City's InfoWater Pro model with new customer demands, followed by performing model simulations to evaluate impacts of customer transfers to system infrastructure and fire flow capabilities.

Lindhurst Avenue Sewer Main Extension, Linda County Water District, Olivehurst, CA | *Hydraulic Modeling*

KJ updated the District's existing water model. Reviewed GIS data, updated the model to incorporate recent developments, and performed system-wide demand allocation by geolocating customers served by the District.



Scott Lehman, IAM

Asset Management

Kennedy Jenks

Professional Summary

Scott Lehman provides experienced, practical asset management guidance to support alignment between GIS data, hydraulic models, and future asset management system needs, helping reduce integration risk while keeping the focus on delivering reliable modeling outcomes. He has led the development and implementation of comprehensive asset management programs from the ground up. In his consulting capacity, Scott is highly skilled in managing enterprise asset management system migrations and leading condition assessments and risk-based maintenance programs for water and wastewater utilities across the United States. Scott will provide advisory support related to asset management considerations associated with updating the District's potable water hydraulic model and development of a new sewer hydraulic model.

Years of Experience

24

Education

BA, Geography & Anthropology, University of California, Santa Barbara, 1999

Certifications

Institute of Asset Management Certificate, Institute of Asset Management (6120657)

Memberships/ Affiliations

Institute of Asset Management

Project Experience

Enterprise Asset Management Implementation, City of San Diego, San Diego CA | *Asset Management*

Led the effort to document existing business processes and develop streamlined, efficient future processes. The collected workflow process data from four City departments was documented to support the implementation of SAP software, an enterprise asset management software used to record the work of City staff. This comprehensive documentation served as a valuable guide for system implementers, expediting the development of the SAP system and saving time and money.

CMMS Needs Assessment, Zone 7 Water Agency, Livermore, CA | *CMMS Implementation Support/QA/QC*

Served as advisor for the strategic replacement of Zone 7's EAM system to support long-term asset management goals. The initiative included implementing a CMMS platform, developing an asset register, conducting FMECA, and creating preventive maintenance job plans. KJ performed a needs assessment, gap analysis, and workflow redesign, and facilitated competitive procurement through RFQ/RFP development and vendor selection. Data integrity was improved via field verification and technical documentation review. Responsibilities included comprehensive oversight on program development, CMMS implementation, and deliverable review, ensuring alignment with project objectives. The result was a sustainable maintenance program that enhances operational efficiency and asset reliability.

Enterprise Asset Management Selection and Implementation, North Charleston Sewer District, North Charleston, SC | *Project Manager*

KJ supported the District in selecting and implementing a new Enterprise Asset Management (EAM) system to improve infrastructure stewardship and operational efficiency. KJ conducted asset register gap analysis, documented and redesigned workflows, facilitated stakeholder workshops, and evaluated multiple EAM solutions, leading to the selection of Cartegraph. KJ also developed training materials to support system adoption and alignment with District standards. Support included gathering functional and technical requirements, RFP writing support, selecting

criteria development, and applying knowledge gained in implementation projects for other clients. Through this support, District staff have selected and implemented a new software system, adopted new capabilities, streamlined business processes, implemented effective asset hierarchies, and configured efficient technology tools to enable the long-term and cost-effective stewardship of the District's critical infrastructure.

CMMS Replacement Support Services, Tahoe City Public Utility District, Tahoe City, CA | *Implementation Support*

The project involves a comprehensive analysis of the existing CMMS usage, a review of the GIS interface, and a detailed assessment of functional requirements. The goal is to select a new CMMS/EAM system that aligns with TCPUD's operational needs. The project includes drafting and refining the Request for Proposal (RFP), assisting with vendor selection, and supporting contract negotiations.

Asset Management Services, City and County of Honolulu, HI | *QA/QC*

Oversaw quality assurance and quality control processes for the Asset Management Gap Analysis and Roadmap project for the City & County of Honolulu's Storm Water Quality Division. Ensured accuracy and consistency in survey design, data collection, and analysis in collaboration with AECOM, using SurveyMonkey for administration and Power BI for reporting. Reviewed and validated gap assessment findings and implementation roadmap. Maintained compliance with project requirements and delivered high-quality outputs to support Storm Water Master Planning and structured asset management implementation.

Asset Management Department, Hillsborough County Water Resources Department, Tampa, FL | *Asset Management Section Manager*

Managed asset risk and capital improvement planning for a portfolio of facilities, including five wastewater plants, five water plants, distribution systems, and collection systems worth approximately 7 billion dollars. Led a team of seven staff members that set asset management program objectives, executed risk assessments, developed repair and preplacement budgets, prioritized proposed projects based on asset management outputs, administered the computerized maintenance management system (CMMS), and developed requests for proposals seeking outside contract support.

Asset Inventory and Risk Assessment, Summerville Utilities, Summerville, SC | *Project Manager/Technical Lead*

Development of a methodology for assessing risk, defining asset hierarchy, collecting field data, and reporting. The project deliverables included data ready for inclusion in a CMMS and a guidance document on the methodology used. The City used these deliverables to develop a prioritized repair and replacement plan for its 10 mgd plant.

Asset Management Program Implementation, Lee County Utilities, Lee County, FL | *Asset Management/GIS*

Provided project GIS and asset data collection support for the asset management program, which included the development of a comprehensive asset management program. Responsible for developing the asset data from four wastewater facilities and over 60 lift stations, which served as the base data for the newly implemented work order system. The program also included the establishment of the asset hierarchy, risk assessment methods, formulation of an asset management plan, and a phased approach to implementation.



Jennifer O'Brien

GIS Specialist

Kennedy Jenks

Professional Summary

Jennifer O'Brien specializes in configuring enterprise GIS environments and developing dynamic workflows that improve data accuracy and accessibility. She is highly skilled in ESRI tools and ArcGIS Enterprise, with extensive expertise in creating and configuring field data collection interfaces using Field Maps and Survey123 to streamline data capture and validation. Jen excels in advanced data evaluation and visualization, analyzing collection and distribution systems to effectively communicate information to diverse audiences. Her experience includes successfully integrating GIS and CAD systems for complex infrastructure projects, enabling seamless data exchange and visualization. Jen's proficiency in workflow automation and standardized plan and profile sheet integration with Civil 3D and ArcGIS Enterprise makes her a strong contributor to projects requiring robust, maintainable solutions.

Years of Experience

13

Education

BA, Geography and Environmental Studies, University of Colorado, Colorado Springs, 2011

MS, GIS, University of Denver, 2015

Project Experience

Hydraulic Model Update & Water Master Plan, City of Thousand Oaks, Thousand Oaks, CA | *GIS Specialist*

As part of the 2024 Potable Hydraulic Model Update for the City of Thousand Oaks, KJ conducted a model build for the City's water distribution system using Aquanuity's AquaTwin Water software. This involved using the City's existing geodatabase to create a new model, calculating and allocating the latest average day demands, and updating pump and valve controls. The model is also being utilized for the City's ongoing fire flow simulations.

Wastewater Master Plan Update, City of Thousand Oaks, CA | *GIS Specialist*

Supported the City of Thousand Oaks Wastewater Master Plan Update by developing and managing comprehensive spatial databases, integrating field inspection data, CCTV records, and stakeholder inputs into a unified GIS platform. KJ coordinated all stakeholder engagement—facilitating workshops, City meetings, presentations, field investigations, and QA/QC reviews—while managing schedule, budget, technical deliverables, and multidisciplinary teams. Their leadership produced a fully integrated master plan supported by calibrated system models, GIS-based condition databases, regulatory assessments, and a prioritized 10-year capital improvement strategy.

Sewer and Potable Water Master Plan, City of Carlsbad, CA | *GIS Specialist*

The update to the City's sewer and water master plans included updating, calibrating, and utilizing a hydraulic model to evaluate system deficiencies. Also included flow monitoring and condition assessments of the existing system. A bespoke GIS-based tool will be provided to help the City track new developments and the associated system impacts in a clear and organized manner. A risk-based prioritization approach was used to organize the City's CIP.

Integrated Water Supply and Drainage Implementation Framework, Solano County Department of Resource Management, Fairfield, CA | *GIS Specialist*

Supported the development of a stakeholder-driven framework to inform Solano County's Utilities Master Plan. Provided GIS services to map and analyze water supply and drainage infrastructure, helping identify key challenges and opportunities. Assisted in visualizing spatial data to support collaborative planning and decision-making across agencies and stakeholders.

Pure Water Soquel Conveyance Infrastructure Project, Garney Construction, Soquel Creek, CA | *GIS Specialist*

KJ designed 70,000 LF of conveyance pipelines for the Pure Water Soquel Program, delivering Civil 3D plan and profile sheets, trenchless crossings, and surge mitigation designs. The team integrated survey and GIS data, managed utility coordination and permitting, and advanced 30%, 60%, and 100% design packages with constructability reviews and cost modeling.

Wastewater Enterprise As-Needed Civil Engineering and Safety Survey No. 3 (TO KA-19), City and County of San Francisco, Department of Public Works, San Francisco, CA | *GIS Specialist*

Responsible for advanced data evaluation and visualization using GIS and other software platforms. She created and configured field data collection interfaces using ESRI tools, including Field Maps, Survey 123, and ArcGIS, to streamline data collection and storage.

Denver Basin Well Assessment, City of Aurora, Aurora, CO | *GIS Specialist*

Developed a Field maps-based online data collection workflow that enabled staff to efficiently capture missing attributes for historical well records targeted for redevelopment. Compiled and delivered a comprehensive, quality-controlled geodatabase to the client, including integrated SharePoint links to as-built documentation and field-verified observations.

Online Data Collection and Asset Management - San Francisco Public Utilities Commission | *GIS Specialist*

Compiled a robust database of irrigation and potable fittings, pipelines, and other appurtenances from CAD datasets to integrate into GIS. Additionally, developed a web map and field data collection tool for cross-connection testing on these fittings and a real-time dashboard to track progress from the field team..

Stormwater Asset Management - Program Development (as a subconsultant), City of Virginia Beach, VA | *GIS Specialist*

Developed a Field maps-based online data collection workflow that enabled staff to efficiently capture missing attributes for historical well records targeted for redevelopment. Compiled and delivered a comprehensive, quality-controlled geodatabase to the client, including integrated SharePoint links to as-built documentation and field-verified observations.

Infrastructure Asset Management Program (as a subconsultant), City of Virginia Beach, Virgina Beach, VA | *GIS Specialist*

Led the development of a formal gap analysis (using IAM Anatomy) to support the onboarding of new data (including pavements and stormwater assets) and associated business processes into the DPW Cartegraph computerized maintenance management system (CMMS). Supported DPW in the comprehensive CMMS data review and evaluation as well as a gap analysis to identify and document "as-is" and "to-be" CMMS-specific business processes. Project outcomes were used to develop DPW-specific business, functional, and technical requirements for a replacement CMMS solution. Participated in short-listed vendor demonstrations to aid in vendor selection.



Jeff Savard, PE

Principal-In-Charge

Kennedy Jenks

Professional Summary

Jeff Savard currently serves as Vice President of the firm and Office Leader for the Ventura County office. The majority of Jeff's experience has been with the planning and design of potable water, recycled water, and wastewater systems. Jeff has worked on a variety of public works projects including the planning, design, construction administration, and resident engineering for treatment plants, pipelines, reservoirs, pump stations, drainage systems, sanitary sewer systems, recycled water systems, potable water systems, and various related projects. In addition, he has participated in groundwater management plans, urban water management plans, and potable and recycled water master plans, plus he has extensive experience in land surveying.

Years of Experience

36

Education

BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, 1990

Registrations

Professional Engineer - Civil - California (51156)

Memberships/ Affiliations

Association of Water Agencies of Ventura County

Channel Counties Water Utilities Committee

American Public Works Association (APWA)

Project Experience

Potable Water, Recycled Water, and Sanitary Master Plan, Las Virgenes Municipal Water District, Calabasas, CA | *Principal-In-Charge*

KJ prepared an Integrated Master Plan that comprehensively evaluated the water, recycled water, and sewer systems associated with Las Virgenes Municipal Water District (District). The plan was developed in a workshop-driven process that involved multiple utilities and stakeholders, including the Joint Powers Authority, Triunfo Sanitation District, and Calleguas MWD.

KJ provided consulting services to the District for the update of the potable water, recycled water, and sanitation Master Plans as well as an Integrated Plan to align the utility systems with a common vision. The plans included a comprehensive assessment of build-out water demands, wastewater flows, and recycled water opportunities with considerations for water conservation and SBx7-7 compliance, development of updated potable water and recycled water hydraulic models, an updated wastewater treatment plant process model, and formulation of a phased Capital Improvement Program for each utility system. The plan was performed under a workshop-driven process with the Board of Directors and the wastewater JPA.

Digester Performance Evaluation, Las Virgenes Municipal Water District, Calabasas, CA | *Principal-In-Charge*

KJ analyzed past performance data, estimated the potential impact if a third digester is added to the operation, and compiled available information on the effect of increased sludge retention time and other relevant parameters resulting from increased digester volume. The evaluation included analyses of solids reduction, biogas production, and other digester health parameters (pH, alkalinity, volatile fatty acids) as well as digested sludge dewatering and cake odor, based on available data from the plant and data collected from literature.

Calabasas Road 10-Inch Emergency Waterline Replacement, Las Virgenes Municipal Water District, Calabasas, CA | *Technical Advisor*

Assisted in the design of approximately 2,400 feet of 8 inch HDPE slip lined inside and existing 10-inch steel pipeline. In a period of just three weeks, repair alternatives

were evaluated, the site was surveyed, hydraulic modeling was performed, and final design specifications and drawings were completed and submitted. The project was constructed during the night to minimize disruption to motorists and businesses.

New Digester No. 3, Las Virgenes Municipal Water District, Calabasas, CA | *Principal-In-Charge*

Pre-design, design, and construction support services for the design of a new third digester and rehabilitation of the heating system for Digesters Nos. 1 and 2 along with planning of a new Fats, Oils, and Greese and food waste digestion program and the receiving facilities.

Urban Water Master Plan Update, City of Thousand Oaks, Thousand Oaks, CA | *Principal-In-Charge*

Project included updating the City's water master plan including updating and calibrating the hydraulic model, updating water demands, evaluating water supplies, addressing water quality/age issues, and preparing a master plan report and capital improvement plan.

Midtown and Westside Sewer Master Plan, City of San Buenaventura, Ventura, CA | *Principal-In-Charge*

Project consists of conducting a comprehensive study of the Midtown and Westside tributary areas which contribute to a significant portion of the wastewater collected by the City. The focus of the study is to identify means for reducing I/I and to determine existing/future deficiencies. The study also will establish a condition assessment program aimed at identifying existing or potential problem areas.

Recycled Water Master Plan, City of Oxnard, Planning and Environmental Services, Oxnard, CA | *Principal-In-Charge*

The project consisted of developing a recycled water system for the largest city in Ventura County. It also included preparing an implementation plan to serve as the 'road map' for the City, which addressed such institutional issues as: permitting; recycled water ordinance and administrative code revisions; rates and financing; staffing needs and training; and public outreach strategies; as well as preparing standard details for the City's use in enforcing recycled water requirement on developers.

Potable Water Master Plan, Calleguas Municipal Water District, Thousand Oaks, CA | *Principal-In-Charge*

Prepared Potable Water Master Plan Update to develop a comprehensive plan by which can accommodate projected purveyor demands and changing operating conditions while continuing to cost effectively provide a reliable water supply to 19 purveyors within Calleguas' service area.

Recycled Water Master Plan Update, Ventura County Waterworks District No. 9, Simi Valley, CA | *Principal-In-Charge*

Project consisted of preparing a Recycled Water Master Plan (RWMP) in accordance with the requirements of the SWRCB 21 October 2004 Water Recycling Funding Program Guidelines. The RWMP involved the evaluation of potential recycled water customers, the development of potential pipeline configurations (and other infrastructure), and the selection of the preferred alternative for optimization of the recycled water system.

Wastewater Master Plan, City of San Buenaventura, Ventura, CA | *Project Manager*

In addition to the City's collection system, the project also involves planning efforts associated with the City's Water Reclamation Facility.

Water System Computer Model Update, City of Fillmore, Fillmore, CA | *Project Manager*

The city's computer model was updated, sewer mains were analyzed, and recommendations for improvements were made.



Joette Jackson, PE

Staff Engineer

Kennedy Jenks

Professional Summary

Joette Jackson is a civil engineer with 9 years of experience in the planning and design of public water and wastewater systems. Her design expertise includes the design of small and medium diameter pipelines, wastewater meter stations, and the design of sanitary sewer lift stations and force mains. This expertise includes developing civil design drawings and preparing contract documents and specification. Her expertise in water and wastewater system planning includes identifying and evaluating Capital Improvement Program (CIP) projects, developing budgetary costs estimates, population and demand projections, and performing impact fee analysis. She is experienced in analyzing large quantities of data and the creation of water and wastewater system models utilizing the hydraulic modeling software InfoWorks ICM, InfoSWMM, and InfoWater Pro.

Years of Experience

9

Education

BS, Architectural Engineering, The University of Texas at Arlington, 2017

Registrations

Professional Engineer - Civil - Texas (144592)

Memberships/ Affiliations

Water Environment Association of Texas - Hydraulic Modeling Subcommittee

Water Environment Association of Texas, Member

Project Experience

Sewer and Potable Water Master Plan, City of Carlsbad, Carlsbad, CA | *Project Engineer/Hydraulic Modeler*

The update to the City's sewer and water master plans included updating, calibrating, and utilizing a hydraulic model to evaluate system deficiencies. Also included flow monitoring and condition assessments of the existing system. A bespoke GIS-based tool will be provided to help the City track new developments and the associated system impacts in a clear and organized manner. A risk-based prioritization approach was used to organize the City's CIP. Responsibilities include developing the sewer model using hydraulic modeling software, calibration of the model utilizing infrastructure data collected from the City and flow meter data, and an analysis of the system using existing and future wastewater flow projections.

Flower Mound 2020 Water and Wastewater Master Plan, Town of Flower Mound, Flower Mound, TX | *Project Engineer*

Master plan updates were performed for the Town of Flower Mound's water and wastewater system. Population, water demand, and wastewater flow projections through build out were determined. Hydraulic modeling was utilized to analyze the Town's water and wastewater system through buildout to develop a Capital Improvements Plan.

Corinth 2023 Water and Wastewater Master Plan and Impact Fee Updates, City of Corinth, Corinth, TX | *Project Manager and Project Engineer*

Managed and performed master plan and impact fee updates for the City of Corinth's water and wastewater system. Population and demand projections through build out were determined. Hydraulic modeling in InfoWater and InfoSewer was utilized to analyze the City's water and wastewater system through buildout to develop a Capital Improvements Plan. Water and Wastewater impact fees were analyzed to determine the maximum assessable impact fee. Performed presentations to City Council to inform staff of the impact fee updates.

Cedar Hill Water and Wastewater Master Plan and Impact Fee Updates, City of Cedar Hill, Cedar Hill, TX | *Project Engineer*

Master plan and impact fee updates were performed for the City of Corinth's water and wastewater system. Population and water demand and wastewater flow projections were developed through build out. Hydraulic modeling in WaterGems and InfoWorks ICM was utilized to analyze the existing systems' capacities and required infrastructure improvements to handle projected growth and demand. Utilizing data developed in the master plan updates, water and wastewater impact fees were analyzed to determine the maximum assessable impact fee.

Annual Water and Wastewater Model Updates, Town of Flower Mound, Flower Mound, TX | *Project Manager and Project Engineer*

Performed annual updates to water and wastewater models, including land use analysis and projections of water demand and wastewater flow for new developments. Updated hydraulic models and assessed system capacity to support future growth.

Northeast System Planning, Upper Trinity Regional Water District, North TX | *Project Engineer*

Water system planning analysis for the Upper Trinity Regional Water District to identifying necessary pipeline and pump station improvements to meet projected water demands from multiple customer cities. Hydraulic modeling in InfoWater was utilized to assess the system and determine necessary improvements for various future demand scenarios.

Water Age Analysis, City of Corinth, Corinth, TX | *Project Engineer*

Analysis utilizing hydraulic modeling software to determined areas in the City of Corinth with high water age. Conducted a hydraulic modeling analysis to determine solutions to reduce the City's water age and the effects of installing mixers in the City's elevated storage tanks.

Lake Sharon Pump Stations Impeller Analysis, City of Corinth, Corinth, TX | *Project Manager*

Project includes field testing on the City of Corinth's Lake Sharon Pump Station to generate pump and system curves to be utilized to determine the hydraulic effects of trimming the pump impellers. The most efficient impeller size was identified and verified in the City of Corinth's water hydraulic model.

Ten Mile Creek Regional Wastewater System TM-1 Relief Interceptor, Phase 2B, Trinity River Authority of Texas, Arlington, TX | *Hydraulic Modeling*

Provided hydraulic modeling for the preliminary and final design of ~4,500 LF of 60- to 66-inch parallel sewer pipeline, including replacing unlined reinforced concrete pipe and a Parshall Flume meter station. The project featured trenchless tunnel crossings of Interstate 35E and Belt Line Road in Lancaster and DeSoto, TX.

CRWS Meter Station Rehabilitations, Trinity River Authority of Texas, Various Locations, TX | *Project Engineer*

Evaluated rehabilitation and replacement options for three wastewater meter sites in the CRWS. Assessed meter technologies, site designs, and reuse potential of existing stations. Sized meters for current minimum flows and future peak flow projections.

North Glenville Road Roadway, Water, and Wastewater Improvements, City of Richardson, Richardson, TX | *Project Engineer*

Supported roadway, water, and wastewater improvements along North Glenville Road, including installation of a 16-inch water line and 8- to 24-inch wastewater pipeline. Project included wastewater rehabilitation using Cured-In-Place Pipe (CIPP) technology.



Marco Pardo Rojas, EIT

Staff Engineer

Kennedy Jenks

Professional Summary

Marco Pardo Rojas began his journey with KJ as an intern, where he quickly showcased his technical proficiency and dedication to sustainable engineering. His contributions to various pipeline and planning projects in Southern California have been invaluable. Now a full-time employee, Marco excels in agenda preparation, writing and drafting, data management, and reporting. His clear communication and attention to detail help deliver organized, client-ready materials that support smooth coordination and informed decision-making.

Years of Experience

3

Education

BS, Environmental Engineering, San Diego State University, 2024

Registrations

Engineer-in-Training (185213)

Project Experience

Sewer and Potable Water Master Plan, City of Carlsbad, Carlsbad, CA | *Technical Support*

Provided data collection and table drafting. Wrote technical memos for potable water and sewer regulations and reviewed existing systems.

Wastewater Collections Master Plan Update, City of Thousand Oaks, Thousand Oaks, CA | *Technical Support*

Prepares and communicates client meeting agenda, attends meetings, takes meeting notes, and compiles and organizes data requests. Prepares Technical Memos for the City's existing system, prevailing issues analysis, alternatives analysis and compiling, infiltration and inflow analysis, and compiles case studies for solutions development.

Moorpark Water Reclamation Facility Pump Station No. 1 Upgrade, County of Ventura, Ventura, CA | *Technical Support*

Set up a model incorporating additional developments, ran scenarios, and organized data.

Las Posas Valley Groundwater Basin – Calleguas Municipal Water District Aquifer Storage and Recovery Project Operations Plan, Best & Krieger, LLP, Ventura, CA | *Hydraulic Modeler*

Conducted a feasibility study to evaluate emergency water supply options for Ventura County Waterworks District No. 1 (VCWWD) and nearby agricultural well owners impacted by Calleguas Municipal Water District's (CMWD) Aquifer Storage & Recovery (ASR) operations. Leveraged Autodesk InfoWater Pro hydraulic modeling from VCWWD's 2022 Water Distribution System Master Plan to assess the potential for supplying water from CMWD turnouts during ASR recovery mode, when groundwater levels are significantly lowered. The analysis supported strategic planning for mitigating water supply disruptions under emergency conditions.

Lead and Copper Rule Revisions – Service Line Inventory, City of Simi Valley, Simi Valley, CA | *Engineering Support*

KJ assisted the District with developing an inventory identifying service line materials in accordance with the requirements of the Lead and Copper Rule Revisions (LCRR) and submitting the service line inventory list to the State Water Resource Control

Board (SWRCB) Division of Drinking Water (DDW). Marco participated in field work, utilizing GIS maps and the City's internal software, and supported compilation of the final data set.

Groundwater Injection Wells, City of Santa Monica, Santa Monica, CA | *Staff Engineer*

KJ is providing design, bidding, and engineering services during construction for the City of Santa Monica for the implementation of two injection wells, one potable water extraction well, and four monitoring wells. Serving as the well-equipping lead designer, which involves downhole well equipment and pump, mechanical piping layouts, electrical coordination, and hydrogeologic coordination.

Well 30 Manganese Treatment Design, City of Davis, Public Works Department, Davis, CA | *Staff Engineer*

Design services for Well 30 manganese treatment project under on-call engineering services contract (Task Order 12). Recent water quality sampling at the well indicates elevated concentrations of manganese above the secondary maximum contaminant level (MCL). Site improvements at the Well 30 site related to this project will include treatment process components, a new building, and a standby generator. Project will also include bidding assistance services and engineering services during construction.

Highway 74 Gravity Sewer Main, Elsinore Valley Municipal Water District, Lake Elsinore, CA | *Staff Engineer*

Professional engineering services for the planning, design, and construction of approximately 12,500 feet of 15 inch gravity sanitary sewer main within State Highway 74, between Wasson Canyon Road and Elmer Street, and within Wasson Canyon Road, between State Highway 74 and Mauricio Avenue. This project is located within EVMWD's Regional Water Reclamation Facility sewershed and will make sanitary sewer service available to the Meadowbrook community.

Southern Wine Country Sewer Final Design, Eastern Municipal Water District, Perris, CA | *Staff Engineer*

KJ is providing professional engineering services for the planning, design, and construction of 9,900 feet of 15-inch gravity sanitary sewer main, 10,300 feet of 12-inch gravity sanitary sewer main, and 3,000 feet of 10-inch gravity sanitary sewer main, as well as the design of laterals to property lines.

Northern Wine Country Sewer Final Design, Eastern Municipal Water District, Perris, CA | *Staff Engineer*

Professional engineering services for the planning and design of 9,900 feet of 15 inch gravity sanitary sewer main, 10,300 feet of 12 inch gravity sanitary sewer main, and 3,000 feet of 10 inch gravity sanitary sewer main, as well as the design of laterals to property lines along Anza Rd and De Portola Rd in southern Wine Country. In addition, the planning and design of 4,300 feet of 12 inch sanitary sewer main and 9,700 feet of 8 inch sanitary sewer main as well as the design of laterals to property lines along Rancho California Rd, Glen Oaks Rd, Warren Rd, and East Benton Rd. This project will make sanitary sewer available in the region and reduce the number of septic tanks currently leaching into Rancho California Water District's wellhead protection area, improving water quality.

Kevin Krajewski, PE

Role: Project Manager, Data QA/QC Specialist

Education
B.S., Mechanical Engineering,
University of California – Davis, 1995

Registration
Mechanical Engineer, CA (M31744)

Total Years of Experience
29 years

Training and Certifications
- Asbestos Awareness
- Confined Space Entry Certified
- First Aid/CPR/AED

Publications
- "A Baytown Experience: Using Pump Station Wet Wells as Flow Meters," WEAT Collections Systems and Odor & Corrosion Specialty Conference, 2022 (Jutan, LaTia)
- "You Can't Squeeze Wine from a Stone: The Success of Napa Sanitation District's I&I Reduction Program," WEFTEC Annual Conference, 2017 (Damron A., Winkelman M)
- "Collection System Flow Monitoring Technology at EBMUD," WEFTEC Annual Conference, 2009
- "Sacramento Regional County Sanitation District Interceptor Sulfide Generation Model," WEFTEC Annual Conference, 2007
- "Ahead of The Flow," Public Works Magazine, 2006
- "Oro Loma Sanitary District Bockman Lift Station: Flow Monitoring and I/I Analysis – A Case Study," CWEA Conference, 2004
- "Cost-Effective Collection System Assessment," HWEA Collection Systems Conference, 2003

Professional Summary

Kevin Krajewski is a senior-level project engineer, engineering manager, division manager, practice leader, and respected industry leader for over 29 years. He has served as the QA/QC advisor and data manager, and project manager on hundreds of flow monitoring, smoke testing, and condition assessment projects throughout California and the Western United States.

Kevin's expertise includes flow and rainfall monitoring and analysis of rain-dependent infiltration and inflow (RDII) into collection systems, including storm event classification, development of synthetic RDII hydrographs and estimates of peak wet weather flows for design storm events.

Fairfield-Suisun Sewer District (FSSD) Experience

Kevin was the project manager and data QAQC manager for wet weather sanitary sewer flow monitoring services within the Fairfield-Suisun Sewer District in 2022. Kevin conducted reconnaissance and managed confined space entry crews to establish average dry weather flows and evaluate the RDI/I response at 5 open-channel flow monitoring sites within the District sanitary sewer collection system. The duration of the work was 2 months; pipe sizes ranged from 10 inches to 36 inches in diameter.

This work was follow-up work from master plan work conducted in 2018 (16 sites for 2 months, pipe diameters 18" – 48") and 2020 (5 sites for 2 months, pipe diameters 10" – 36"), both of which Kevin was the PM and data QAQC manager.

Relevant Additional Local Experience

Similar to FSSD, in the past 20 years, Kevin has served as project manager/engineer/data manager for these following municipalities, or as sub-contracted by their master planning engineering firms, for projects ranging from 4 to 140 sites and pipe diameters ranging from 6 to 120 inches:

- City of Pittsburg
- City of Antioch
- Central Contra Costa Sanitary District
- Napa Sanitary District
- Vallejo Sanitation and Flood District
- West County Wastewater District
- West Bay Sanitary District
- San Luis Obispo
- Selma-Kingsburg-Folwer
- San Bernardino MWD
- Elsinore Valley WD
- Coachella Valley WD
- EBMUD
- Sacramento
- Davis
- Dixon
- Vacaville
- Roseville
- Woodland
- Pacifica
- Madera
- Tulare
- Visalia
- Woodlake
- Vista
- Oxnard
- Ventura
- Goleta San
- Burbank
- Glendale
- Riverside
- Berkeley
- San Jose
- Santa Clara
- Sunnyvale
- Lincoln
- Tracy
- Turlock
- Livingston
- Merced
- Auburn
- Live Oak
- Stockton
- Los Banos
- Banning
- Santa Barbara
- Santa Monica
- Chino Hills
- Anaheim
- Carlsbad

Davis Fire Protection

Fire Flow Analysis

Professional Summary

Davis Fire Protection is a full-service fire protection systems contractor providing engineering, inspection, testing, repair, and installation services throughout California. As active members of the National Fire Protection Association (NFPA) with comprehensive licensing under CSLB #1034812, Davis Fire brings decades of experience in fire system performance, hydrant reliability, and water-based suppression infrastructure essential for accurate fire flow evaluation.

Relevant Capabilities

Fire Hydrant and Water Supply Infrastructure Expertise

Testing and inspection of fire hydrants, fire mains, and water pressure systems—critical assets for validating modeled fire flow performance.

Experience repairing and assessing hydrant performance, including leak identification and ensuring compliance with certification standards.

Fire Protection System Engineering Insight

Engineering and installation of full-scale fire sprinkler and suppression systems, providing deep understanding of required pressures, demand characteristics, and NFPA-driven design assumptions relevant to model calibration.

Experience with underground fire main lines and water supply appurtenances—components directly tied to system fire flow availability.

Testing, Certification & Compliance Knowledge

Conducting annual and five-year certifications for fire protection systems, aligning with rigorous NFPA and state guidelines—valuable for evaluating system readiness and validating modeled outputs.

Skilled in diagnosing performance deficiencies across fire protection components, contributing meaningful insights into areas of hydraulic risk.

Regional Presence and Responsiveness

Davis Fire Protection maintains a strong operational footprint in Ventura County, offering rapid support and local familiarity with regional fire protection infrastructure requirements. Their Ventura County office (805-303-2070) supports commercial, industrial, and municipal clients with testing, inspection, emergency response, and system repair services. This proximity enables efficient coordination for field data collection, hydrant testing support, and real-time response to information needs during model development.

Kennedy Jenks

Contact Information

Adam Bugielski, PE
Project Manager
(661) 857-4745
AdamBugielski@kennedyjenks.com

Oxnard Office
2775 North Ventura Road, Suite 202,
Oxnard, CA 93036

Copyright © 2026 Kennedy/Jenks Consultants, Inc.

AGENDA ITEM NO. 4.E

DATE: April 7, 2026

TO: Board of Directors

FROM: Engineering and Facilities

SUBJECT: On-Call Construction Management and Inspection Services: Award

---

SUMMARY:

On February 2, 2026, staff issued a Request for Proposals (RFP) for on-call construction management and inspection services. The District received eight proposals, and after thorough review, staff recommends accepting the proposal from NV5 based on its references, availability of resources and competitive rates. Staff recommends that Board authorize a one-year professional services agreement, in the amount of $450,000, with four one-year renewal options for on-call construction management and inspection services.

RECOMMENDATION(S):

Accept the proposal from NV5 and authorize the General Manager to execute a one-year professional services agreement, in the amount of $450,000, with four one-year renewal options for on-call construction management and inspection services.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The cost of the proposed services is not expected to exceed $450,000 annually. Task orders will be issued for the on-call services to support existing capital improvement projects included those authorized in the adopted Fiscal Year 2025-26 Budget. Charges for the work will be allocated to the associated capital improvement projects.

DISCUSSION:

On February 2, 2026, staff issued a Request for Proposals (RFP) for professional services from qualified firms to provide construction management and inspection services on an on-call

basis. The RFP addressed on-call as needed and supplemental construction management and inspection needs for capital improvement projects where internal staff may not be available or are otherwise engaged in existing projects. In addition, an outside consultant can frequently provide services such as specialty inspection work associated with welding, electrical, and coating tasks that existing staff does not have the certifications to perform. This contract may be used on both District projects as well as projects that fall under the JPA.

Task orders will be issued under this agreement on an as-needed, on-call basis, and payments will be made according to the rate schedule submitted by the consultant. The initial contract term will be for one year, in the amount of $450,000, for all task orders. Staff recommends authorization to approve up to four potential one-year renewal options, in the amount of $450,000 each. No guarantee would be made to the consultant for any minimum amount of work. The District/JPA would further reserve the right to hire specialty managers and/or inspectors at any time through a separate contract, and the proposed agreement would not confer any exclusivity to the successful firm for construction management or inspection services.

The RFP yielded eight proposals. The proposals were reviewed based on the quality of the firms' performance on past projects, expertise in the field of construction management and inspection, understanding of the project scope and objectives, rates and fees, history and resource capacity to perform the requested service and additional factors. Of the eight proposals received, staff recommends NV5 for award of the work. NV5's proposal demonstrated experience successfully delivering past projects for the District, including under the District's previous on-call construction management and inspection services contract (2020-2025), geotechnical engineering for emergency waterline repairs in Calabasas during the December 2024 storms, and inspection services on the DeerLake Development Project.

NV5 also identified multiple construction managers and inspection staff who would be available for District/JPA projects, clearly demonstrating an ability to handle concurrent projects. Lastly, NV5's rate structure was very competitive and was further negotiated by staff, offering significant cost-savings to the District/JPA as compared to the some of the other proposals. Notably, staff negotiated a reduction in NV5's markup on consultant services from 15% to 5%, which is anticipated to present a significant cost savings to the District and the JPA over the life of the contract.

GOALS:

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

Prepared by: Sarah Mathews, PE, Senior Engineer

ATTACHMENTS:
Proposal by NV5



A. TITLE PAGE

Submitted by NV5, Inc.
1868 Palma Drive, Suite A-E, Ventura, CA 93003

Las Virgenes Municipal Water District

On-Call Construction Management & Inspection Services, 2025-RFP-037
February 20, 2026

Contact:
Luanne Bean, PE, Director of Program and Construction Management
1868 Palma Drive, Suite A-E, Ventura, CA 93003
luanne.bean@nv5.com
951.377.1566

Table of Contents

A. Title Page	01
B. Table of Contents	02
C. Transmittal Letter	03
D. Key Personnel	04
▸ *Organization Chart*	*04*
E. References	05
F. Qualifications & Experience	06
▸ *Firm Profile & Key Services*	*06*
▸ *Relevant Project Experience*	*07*
G. Detailed Proposal	14
H. Legal Issues & Potential Conflicts of Interest	19
I. Schedule of Rates (excluded from page count)	20
J. Contractual Services Agreement	22

APPENDIX

Resumes of Key Personnell	A1
Sample Inspection Report	A28

CLIENT TESTIMONIAL

"The NV5 staff is knowledgeable, courteous, and friendly and they truly care about their projects and the services they provide. From Engineering Design to Inspection to Plan Check Services, the NV5 team can do it all, and we can always rely on them to deliver a quality product on time and within budget. Currently, they are assisting us with assessment district planning, plan checking, construction inspection and other general engineering services. I highly recommend NV5 for your professional and engineering consulting needs."

— Matthew Sinacori, Director of Public Works/ City Engineer, City of Dana Point



C. TRANSMITTAL LETTER

PN: 2700226-0015818.00

February 20, 2026

Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 91302

SUBJECT: On-Call Construction Management & Inspection Services

Dear Selection Committee,

NV5, Inc. is excited to have the opportunity to continue providing On-Call Construction Management and Inspection Services to the Las Virgenes Municipal Water District (LVMWD). Our team has the technical knowledge and experience to deliver your projects on schedule and within budget. NV5's strengths include the following:

Current Partnership: As a current incumbent on this on-call contract, our experience and strong existing relationship with LVMWD gives us the ability to continue providing construction management and inspection services for your projects. We operate with a sound understanding of your organizational structure, administrative processes and the community you serve. This in turn allows us to provide the required construction support services in the most efficient manner. Specifically, our team is providing geotechnical consulting, exploration, and construction inspection and testing at 5745 Parkmore Road in Calabasas; provided construction materials testing services for the Cold Canyon Road Pump Station Pipeline; and provided construction management, electrical inspection and soils testing for the stationary emergency generators for potable water pump stations.

Relevant Experience: We have a proven track record of successfully providing on-call construction management and inspection to municipalities throughout Southern California, most of which have been repeat clients. Our team has provided similar services to LVMWD and dozens of other agencies, including the cities of Culver City, Anaheim, South Pasadena, and Glendale, just to name a few.

Proposed Team: NV5 offers LVMWD a team of dedicated professionals with proven capability and expertise. We are proposing **Luanne Bean, PE**, as Project Manager. Ms. Bean has more than 35 years of expertise in construction management and inspection for water, wastewater, facilities, streets, and other infrastructure projects. She will be joined by a team of dedicated construction managers, construction inspectors, special inspectors, and materials inspectors who can mobilize quickly to meet whenever the need arises.

Accessibility and Responsiveness: Our team takes pride in providing immediate response and personal attention to our clients' needs. Each of our construction inspectors is equipped with a mobile office to record daily reports and allow real-time access to the City — granting you convenient, full access to the current status of your projects. Additionally, our inspectors send out regular supplementary emails noting elements of significance performed, along with photos for a quick glance of work, enabling all City staff to immediately be up to date.

Proposal Validity: This proposal shall remain valid for a period of 90 days from the date of this submittal.

Addendum Acknowledgment: We have reviewed LVMWD's Addendum No. 1, dated February 12, 2026.

NV5 looks forward to the opportunity to continue working with LVMWD to help you achieve your goals and objectives. If you need further information, Ms. Bean's contact information is below. Thank you for your time and consideration.

Sincerely, NV5, Inc.

Luanne Bean, PE
Director of Program and Construction Management

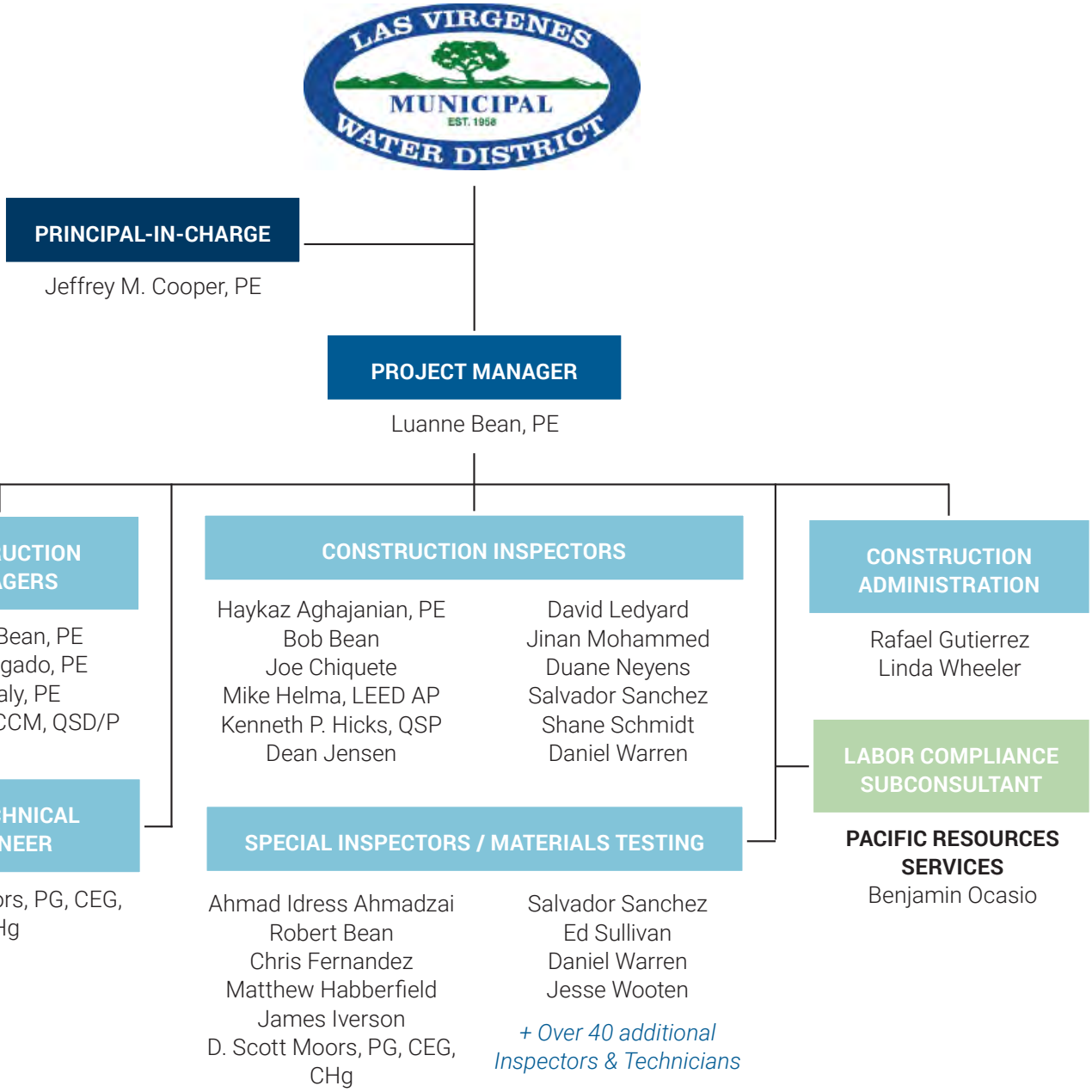
Jeffrey M. Cooper, PE
EVP, Chief Operating Officer

COMPANY INFORMATION/CONTACT
Name: NV5, Inc.
Address: 1868 Palma Drive, Suite A-E, Ventura, CA 93003
Telephone Number: 951.377.1566
Email of Contact: luanne.bean@nv5.com

D. KEY PERSONNEL

Organization Chart

Our team of experts brings direct, relevant, successful and current experience working on projects of similar scope and complexity. We are equipped with the resources to provide LVMWD with the requested construction management and inspection services. There will be no changes to personnel named in this proposal or during performance of services without LVMWD's approval. Shown below are team roles and responsibilities. Please see **Resumes** for our key personnel in the **Appendix, page A1**.



Staffing Model

The proposed team will be led by a dedicated Project Manager, **Luanne Bean, PE**, who will serve as the primary point of contact and be responsible for overall task order delivery, resource coordination, and quality assurance. Supporting Ms. Bean is a team of construction managers and inspectors who are experts in their field. The chart above reflects a clear delineation of responsibility, including how subconsultant staff integrate into our delivery model to provide support.

References

Provided below are references of clients for whom construction management and inspection services have been performed in the recent years that are comparable in quality and scope to that specified in this RFP.

CITY OF CULVER CITY

Hong Wang, PE
Senior Civil Engineer

310.253.5604
hong.wang@culvercity.org

Relevant Projects:

- Diversion Sewer Pipes to Abandon Fox Hills Pump Station - NV5 provided CM&I for this $593,322 contract that was completed on time and within budget.
- Diversion Pipeline - NV5 provided CM&I and engineering services for this $798,349 project that was completed on time and within budget.
- Bankfield Sewage Pump Station - NV5 provided construction management, inspection, and limited design engineering services for this $260,000 project that was completed on time and within budget.

CITY OF COMPTON

John Strickland
Public Works Department

310.605.5505
jstrickland@comptoncity.org

Relevant Project:

Emergency Sewer Line Replacement - NV5 provided CM&I for this $199,995 project that was completed on time and within budget.

CITY OF ANAHEIM

Jacob Hester, PE
Water Engineering & Design Manager

714.765.4421
jhester@anaheim.net

Relevant Project:

Design-Build for Shady Lane, Olive Street and Country Hill Road Water Main Replacement - NV5 served as the Construction Manager/ Resident Engineer for this $48,720 water main replacement project that was completed on time and within budget.

Robert Hoang
Principal Engineer, Anaheim Public Utilities, Water Engineering Division

714.765.4229
rhoang@anaheim.net

Relevant Project:

La Palma Avenue and Tustin Avenue Water Main Replacement at OCTA Railway Crossing - NV5 is providing CM&I for this ongoing $269,913 contract.

F. QUALIFICATIONS & EXPERIENCE

Firm Profile

NV5, Inc. is a **California Corporation** that has been providing engineering and consulting services to public and private sectors for more than 75 years, delivering solutions through six business verticals: Testing, Inspection and Consulting; Infrastructure; Utility Services; Environmental Health Sciences; Buildings and Program Management; and Geospatial Technology. With more than 100 offices nationwide and abroad, NV5 has access to over 5,000 employees in a variety of fields who help clients plan, design, build, test, certify and operate projects that improve the communities where we live and work.



Our Irvine office specializes in the engineering design, project management, construction management and inspection of capital improvement projects, including: streets, traffic systems, water and wastewater systems, drainage and flood control, parks and recreational facilities, vertical construction, and landscaping and grading. Our team includes licensed civil engineers, licensed contractors, construction managers, certified inspectors and experienced public works professionals. All team members have extensive experience working within the structure of municipal government and public construction policy and will seamlessly integrate with the City's team.

Key Services

The successful delivery of our products and services has resulted in repeat clients for a broad range of municipal projects. Our key services include:

- CONSTRUCTION MANAGEMENT + INSPECTION
- PROJECT MANAGEMENT
- CONSTRUCTABILITY REVIEW
- MATERIALS TESTING SERVICES
- CIVIL ENGINEERING DESIGN
- STAFF AUGMENTATION
- WATER + WASTEWATER ENGINEERING
- LAND SURVEY + GIS
- GEOTECHNICAL ENGINEERING
- BUILDING + SAFETY SERVICES

We maintain an extensive history of working with various local agencies. Throughout the course of completing myriad public works capital improvement projects, our team has demonstrated an unparalleled ability to work well with local agency staff, project stakeholders, engineers and contractors. We have successfully delivered projects in a timely and cost-effective manner, and we have acquired a keen understanding of local agency requirements, a critical element in the facilitation and resolution of project issues. We are excited about the opportunity to continue to serve LVMWD and are committed to maintaining good relationships with your staff, relevant government agencies and project stakeholders.

Relevant Project Experience

NV5 has successfully provided construction management and inspection services for LVMWD and other water districts and municipalities throughout Southern California and beyond. Listed below is a sampling of projects that involve services relevant to those requested by the District.

On-Call Construction Management and Inspection Services

LAS VIRGENES MUNICIPAL WATER DISTRICT | CALABASAS, CA

NV5 provides as-needed Construction Management and Inspection Services to the District, including construction inspection and special inspection services. NV5 has completed many projects with LVMWD, including the Deer Lake Project for a 1-MG tank replacement, including electrical inspection, soils compaction and concrete testing, as well as electrical inspection services for the Stationary Emergency Generators for the Potable Water Pump Stations Project with 200 KW and 600 KW generators installed at four sites.

- **DATES:** 2020-CURRENT
- **KEY PERSONNEL:** LUANNE BEAN, BOB BEAN, SALVADOR SANCHEZ, SCOTT MOORS, DANIEL WARREN, ED SULLIVAN, AHMAD AHMADZAI

Emergency Waterline Repairs

LAS VIRGENES MUNICIPAL WATER DISTRICT | CALABASAS, CA

During the winter storms of December 2024, LVMWD's pipeline located at 5745 Parkmore Road and the 26000 block of Idlewild Way suffered damages including slope stability failures. NV5 provided geotechnical engineering including a special investigation and repair recommendation/report for this work followed by field special inspections, and materials engineering and testing services during the repair for this project. NV5's geotechnical report was critical for LVMWD's insurance claim for the slope rehabilitation and the causes for failure to assure that the final slope corrections produced a stable slope, and to minimize future liability and an inverse claim for LVMWD. NV5 mobilized on a Saturday to perform the initial failure report on an emergency basis at the request of the District.

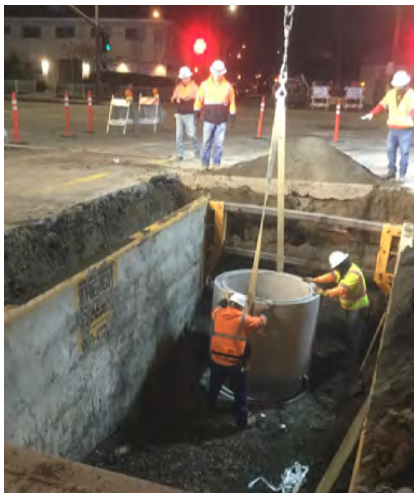


- **DATES:** JANUARY 2024-FEBRUARY 2025
- **KEY PERSONNEL:** LUANNE BEAN, SCOTT MOORS, ED SULLIVAN, AHMAD AHMADZAI

Diversion Pipeline

CITY OF CULVER CITY | CULVER CITY, CA

NV5 provided construction management, inspection, and engineering services for the construction of sewer main diversion pipes reversing sewer flow via conventional cut and cover as well as trenchless jack and bore methods to abandon Mesmer and Overland Sewer Pump Stations. This also involved extensive permits and coordination with Caltrans, the City of Los Angeles, and the City of Culver City for these jack and bore pipelines underneath the I-405 and Route 90. The goal of the project was to divert flows from four of the City's sewer pump stations to a new sewage pump station, Bankfield Station, which is another project in which NV5 provided construction management and inspection services during construction.

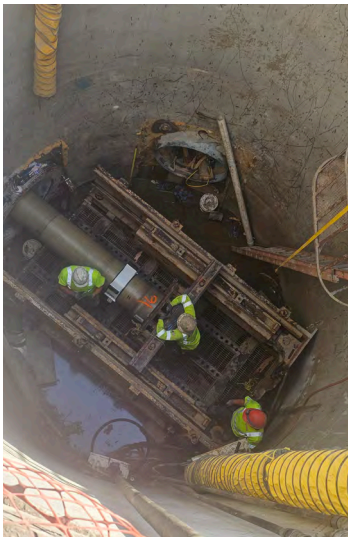


- **DATES:** MARCH 2019-2021
- **KEY PERSONNEL:** LUANNE BEAN, DANIEL WARREN, RAFAEL GUTIERREZ

Diversion Sewer Pipes to Abandon Fox Hills Pump Station

CITY OF CULVER CITY | CULVER CITY, CA

NV5 provided construction management and inspection services for the Diversion Sewer Pipes to Abandon Fox Hills Pump Station project. The project constructed 1,230 LF of 18-inch diversion sewer mains from Fox Hills pump station to Bankfield pump station. The project included constructing 18-inch FRPM (Fiberglass-reinforced pipe) in a 36-inch RCP casing by microtunneling (1,223 LF) at an average depth of 28 feet to 30 feet; constructing new manholes; pavement restoration of all existing improvements; 18-inch force main tie-in near City of Los Angeles manhole and associated temporary bypass system; 1,600 LF of abandonment of portions of the existing dual force 12-inch and 18-inch mains; 1,230 LF of CCTV inspection; and demolition of Fox Hills pump station and the Overland pump station

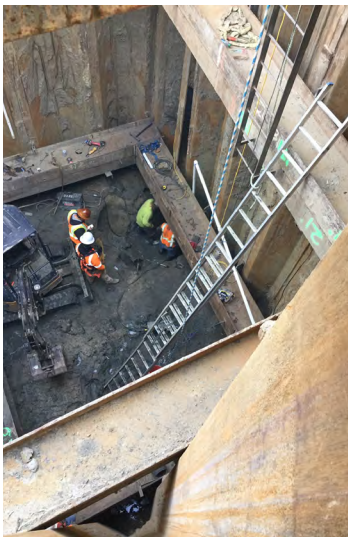


- **DATES:** APRIL 2025-JANUARY 2026
- **KEY PERSONNEL:** LUANNE BEAN, INDIA ALLEN, JINAN MOHAMMED, SALVADOR SANCHEZ, RAFAEL GUTIERREZ, LINDA WHEELER

Bankfield Sewage Pump Station

CITY OF CULVER CITY | CULVER CITY, CA

NV5 provided construction management, inspection, and limited design engineering services for the construction of the Bankfield Sewer Pump Station adjacent to the Caltrans Right-of-Way. The new pump station receives diverted flows from two existing pump stations, and diverted flows from two more pump stations at a later date. The new pump station has a 10-foot-by-20-foot sewer wet well that is 35 feet deep, constructed in groundwater with a discharge permit to the City of L.A. Sewer Interceptor since the water was contaminated and RWQCB would not issue a permit to discharge to storm drain. There are two submersible pumps, a flow meter vault, a valve vault, a bypass vault for the two force mains, an emergency diesel-fueled backup electrical generator, and complete SCADA systems. NV5 assisted with the final design and implementation of the emergency diesel generator, as well as pipeline redesign for the sewer force main, including the AQMD permitting, as the original plans did not accommodate a generator. There is also a building to house instrumentation and SCADA systems, a bathroom and electrical components. *This project is an American Public Works Association BEST Awards winner.*



- **DATES:** OCTOBER 2018-AUGUST 2020
- **KEY PERSONNEL:** LUANNE BEAN, DANIEL WARREN, SALVADOR SANCHEZ, INDIA ALLEN, RAFAEL GUTIERREZ

Emergency Sewer Line Replacement

CITY OF COMPTON | COMPTON, CA

While working on another project for the City, NV5 identified a severely deficient sewer line via review of the City's most recent CCTV videos, whereby the sewer line was severely cracked or missing altogether. NV5 alerted the City that an emergency on this reach was developing and could not wait until the project was done. Shortly thereafter, the City experienced a minor sewer overflow in this same area because of this deficiency identified by NV5. NV5 worked with the City through our on-call contract to develop minimal engineering bid plans based on the Greenbook, and further assisted the City in an emergency declaration with the City Council and actively solicited emergency bids on behalf of the City to recommend award to a Class A General Engineering Contractor in just a few short weeks. NV5's role then shifted to Construction Manager and Construction Inspector to successfully assist the City in the construction of approximately 4,000 LF of sewer main, including lateral reconnections to homes and businesses in both residential and arterial streets.

- **DATES:** OCTOBER 2023-APRIL 2024
- **KEY PERSONNEL:** LUANNE BEAN, INDIA ALLEN, HAYKAZ AGHAJANIAN, SALVADOR SANCHEZ, RAFAEL GUTIERREZ

Reverse Osmosis Water Treatment Plant

CITY OF BEVERLY HILLS | BEVERLY HILLS, CA

NV5 served as Owner's Representative for the City during the design and construction of a pre-treatment system for the City's existing Reverse Osmosis Water Treatment Plant. Our team oversaw the planning and initial design to construct this project as a design-build facility for the City. Once the project was initially bid as a design-build project, the City opted instead to finalize the design and re-bid the project under a conventional design-bid-build option. NV5 continued throughout this process as the Owner's Representative to oversee the second bidding for conventional construction and continued on as Construction Manager as well as provided full-time inspection services throughout bidding, material procurement, construction, commissioning, testing, Division of Drinking Water permitting, and training of City Operations Staff.



- **DATES:** OCTOBER 2018-FEBRUARY 2024
- **KEY PERSONNEL:** LUANNE BEAN, SALVADOR SANCHEZ, DANIEL WARREN, RAFAEL GUTIERREZ, MIKE HELMA, INDIA ALLEN



Rural Ridge Circle and Wilshire Avenue Water Main Replacement

CITY OF ANAHEIM | ANAHEIM, CA

NV5 provided Construction Management/Resident Engineering and Inspection Services for this water main replacement project. The work consisted of two water main improvement areas: the Rural Ridge area for 4,230 LF and the Wilshire-Pearl area for 2,750 LF of 8-inch to 15-inch potable water main, tie-ins to the existing potable water system, 142 1- and 2-inch water services and meters, existing main abandonment, and final street restoration. NV5 provided full Construction Management, Resident Engineering, and Inspection Services for this project, including coordination with the City, shop drawing and RFI review, change order analysis, and scheduling management.

- **DATES:** FEBRUARY 2022-JULY 2023
- **KEY PERSONNEL:** LUANNE BEAN, SALVADOR SANCHEZ, DANIEL WARREN, JOE CHIQUETE, RAFAEL GUTIERREZ, INDIA ALLEN



Design-Build for Shady Lane, Olive Street and Country Hill Road Water Main Replacement

CITY OF ANAHEIM | ANAHEIM, CA

NV5 served as the Construction Manager/Resident Engineer for this water main replacement project. The project consisted of three independent areas of water main replacement within the sensitive residential areas of Country Hill Road, Olive Street, and Shady Lane. There was 3,960 LF of 12-inch, 10-inch, 8-inch and 6-inch C909 PVC and DIP waterline, line-stops, tie-ins, and new laterals and meter services installed with final street restoration. This additionally involved the standard water main replacements including: shutdowns; dewatering; excavation; placement of the water mains, valves, and appurtenances; disinfection; and pressure testing followed by final street restoration under the direction of Anaheim Public Utilities and NV5's Resident Engineering Services.

- **DATES:** FEBRUARY 2022-AUGUST 2024
- **KEY PERSONNEL:** LUANNE BEAN, INDIA ALLEN

La Palma Avenue and Tustin Avenue Water Main Replacement at OCTA Railway Crossing

CITY OF ANAHEIM | ANAHEIM, CA

NV5 is providing construction management and inspection services for the City's La Palma Avenue and Tustin Avenue Water Main Replacement at OCTA Railway Crossing project. Metrolink with the Orange County Transportation Authority -- under the governing body of Southern California Regional Rail Authority (SCRRA) – is expanding the Anaheim Canyon Metrolink Station, which includes the addition of a train track crossing at La Palma Avenue and one 12-inch water main at Tustin Avenue. The water main replacement project involves bore and jack installation of two new water mains (12-inch and 36-inch) underneath the OCTA railroad track in La Palma Avenue and Tustin Avenue, followed by the abandonment of the existing water mains that will now be too shallow and are not adequately reinforced to carry the load underneath the new train track. The project includes close coordination with the City, OCTA, Metrolink, Southern California Regional Rail Authority (SCRRA), among other agencies.

- **DATES:** FEBRUARY 2022-CURRENT
- **KEY PERSONNEL:** LUANNE BEAN, INDIA ALLEN, KENNETH HICKS, SALVADOR SANCHEZ, DANIEL WARREN, RAFAEL GUITERREZ

Graves Reservoir Replacement

CITY OF SOUTH PASADENA | SOUTH PASADENA, CA



NV5 provided comprehensive construction management and inspection services on the demolition and construction of a new 1.2-mg partially buried cast-in-place reservoir sited in a residential neighborhood. An existing well was re-equipped as the source of groundwater for the reservoir. The existing well pump was renovated and a new pumping station was constructed with two 1,400-gpm VFD pumps that pump from the reservoir to the City water system. A new sodium hypochlorite generation system, new pre-treatment with state-of-the-art GAC for PCE and CCI4 removal followed by a new ion exchange system for removal of nitrate as NO3, ClO4 and sulfate was installed. The new pump house is controlled by a PCIS system composed of approximately 80 new instruments with approximately 80 new I/Os. These new signals are routed through the new PLCs, HMIs, and SCADA. The Contractor was required to work with the City's System Integrator subcontracted directly with the City in accordance with the Control Strategies of the Specifications. NV5 provided full-service CMS including construction management, inspection, lead and asbestos demolition oversight, public relations, SRF loan reimbursement management including Buy-American provisions and labor compliance, biological monitoring, and geotechnical and materials testing for this comprehensive project. Completed reservoir included Verdura walls in front of the reservoir for landscaping to cover and provide an aesthetically pleasing element for the local residential community.

- **DATES:** AUGUST 2018-SEPTEMBER 202
- **KEY PERSONNEL:** LUANNE BEAN

On-Call Construction Inspection Services for Water and Sewer Projects

CITY OF SAN JUAN CAPISTRANO | SAN JUAN CAPISTRANO, CA

NV5 provides full-time on-call inspection for the City's water and sewer projects. Our NV5 inspectors report directly to the City's Project Manager

- **DATES:** DECEMBER 2020-CURRENT
- **KEY PERSONNEL:** PETER SALGADO

Crowther Sanitary Sewer Pipeline Replacement

CITY OF PLACENTIA | PLACENTIA, CA

NV5 provided construction management, inspection services and materials testing services for the Crowther Sanitary Sewer Pipeline Replacement project. The scope of work included replacement of approximately 7,400 LF of gravity sewer pipeline in Crowther Avenue, Placentia Avenue, and Orangethorpe Boulevard, located within the Cities of Placentia and Fullerton. The work involved installation of 15-inch, 18-inch, and 22-inch PVC and fused HDPE sewer pipeline and manholes. NV5 spearheaded the required coordination to Public Health Department and Golden State Water Company for those areas where the water/sewer separation could not be met for variances with alternate construction of the sewer pipeline. The work also included reconnection into all of the existing gravity mains and service laterals with a terminus tie-in connection at the existing Orange County Sanitation District's trunk line on State College Boulevard. The project — which included a jack and bore encasement crossing underneath the 57 freeway, BNSF ROW, in Caltrans right-of-way — involved coordination with multiple agencies, including Caltrans, the Orange County Sanitation District, Golden State Water, Department of Health Services, the City of Fullerton, and other utility and governmental agencies. Working in high-traffic areas, as well as a jack-and-bore crossing underneath the Orange County Flood Control District's flood control channel and a jack-and-bore crossing underneath the BNSF railroad, and multiple crossings of Southern California Gas Co.'s high-pressure gas feeder, were among the project's challenges. NV5 provided Construction Management, full-time Inspection and Materials Testing Services for this project.

- **DATES:** JULY 2021-2024
- **KEY PERSONNEL:** LUANNE BEAN, INDIA ALLEN, RAFAEL GUTIERREZ, HAYKAZ AGHAJANIAN, NV5 GEOTECH (SOILS COMPACTION TESTING)

Arantine Hills Sewer and Water Infrastructure Projects (Lift Station, Force Main, Sewer Main, Potable Water Line)

CITY OF CORONA | CORONA, CA



NV5 provided construction management and inspection services for the $14.7M three-phase Arantine Hills sewer and water improvement projects to provide the necessary infrastructure for the Arantine Hills Development. The project involved the construction of a buried cast-in-place sewer lift station with above-grade controls. This was connected to a second project to construct the sewer force main with fused HDPE pipe via conventional open trench and trenchless jack-and-bore sewer construction along arterial streets and Caltrans ROW, forming 4 miles of pipeline. Relocation of 3,300 LF of potable water line also was required to install the new force mains. A third project managed simultaneously was the construction of the California Avenue Sewer at a depth of 25 feet below grade. All three projects were to be completed together for the final and finished sewer lift station to function. Upon completion of the project, the City planned to decommission its Water Reclamation Facility No. 3. Coordination with developers was required for the construction of the sewer lift station within their property, and Caltrans was required along certain reaches of the pipeline construction for construction within their ROW.

- **DATES:** AUGUST 2017-FEBRUARY 2019
- **KEY PERSONNEL:** LUANNE BEAN, DANIEL WARREN, SALVADOR SANCHEZ

On-Call Geotechnical/Special Inspection/Material Testing

VARIOUS MUNICIPALITIES & AGENCIES | CALIFORNIA

NV5 specializes in geotechnical, inspection, and testing services for transportation, pavement rehabilitation, and infrastructure improvement projects for local agencies. Selected local on-call service contracts include:

- Casitas Municipal Water District: Construction Inspection, Geotechnical, Materials Testing
- Calleguas Municipal Water District: Geotechnical and Materials Testing
- County of Santa Barbara: Geotechnical and Materials Testing
- City of Santa Barbara: Geotechnical and Materials Testing
- City of Goleta: Geotechnical and Materials Testing
- County of Ventura: Construction Inspection, Geotechnical, Materials Testing

Deer Lake Project

LAS VIRGENES MUNICIPAL WATER DISTRICT | CALABASAS, CA

NV5 provided as-needed soils compaction, concrete strength testing services, and inspection services for the Deer Lake Project. The Deer Lake Project included demolition of an existing 0.4 MG tank and replacing it with a 1 MG tank. The tank is 78'-0" in diameter with a reinforced concrete ring foundation that is 3'-9" wide by 2,-8" tall as designed by Paso Robles Tank, Inc. for the new 78'-0" steel tank. This project included grading, compaction, and new foundation for which NV5 provided soils compaction testing and concrete strength tests.

- **DATES:** NOVEMBER 2020-DECEMBER 2021
- **KEY PERSONNEL:** LUANNE BEAN, ROBERT BEAN, SALVADOR SANCHEZ, NV5 GEOTECH, SCOTT MOORS

Las Virgenes Municipal Water District-Calleguas Municipal Water District Interconnection

CALLEGUAS MUNICIPAL WATER DISTRICT – WESTLAKE VILLAGE / THOUSAND OAKS / AGOURA HILLS, CA



The LVMWD–CMWD Interconnection Project consisted of constructing a new intertie pipeline between Las Virgenes Municipal Water District and Calleguas Municipal Water District to improve regional water supply reliability and emergency redundancy.

NV5 provided comprehensive special inspection and materials testing services, including:

- Reinforced concrete inspections for vaults and structural appurtenances
- Rebar placement and shop drawing verification
- Formwork and concrete placement observation
- Compaction testing for trench backfill and aggregate base
- Concrete sampling and field testing
- Masonry inspection for utility structures

Our inspectors ensured strict compliance with district standards and structural specifications. Through consistent field presence and quality control oversight, NV5 supported the successful installation of critical regional water transmission infrastructure.

Onshore Ventura Water Pure Ocean Outfall

CITY OF VENTURA | VENTURA, CA

The Water Pure – MEG Offshore Outfall project included ground stabilization improvements utilizing Cement Deep Soil Mixing (CDSM) to support critical water infrastructure components. As a subconsultant to Mimiaga Engineering Group, NV5 provided comprehensive observation and quality assurance services during CDSM operations. Our team observed the soil mixing process, performed sampling for quality control and quality assurance, logged and submitted CDSM samples for laboratory testing, and provided daily field reporting. Inspectors also submitted daily CDSM column production data to the client to assure transparency and compliance with design parameters. In addition, NV5 observed fill placement activities and performed field density testing to verify proper compaction and stability of overlying materials. Our diligent oversight ensured adherence to project standards and the effective implementation of ground stabilization measures in a challenging coastal environment.

- **DATES:** COMPLETED OCTOBER 2024
- **KEY PERSONNEL:** SCOTT MOORS, ED SULLIVAN, JESSE WOOTEN, AHMAD AHMADZAI

Lake Sherwood Pump Station

CALLEGUAS MUNICIPAL WATER DISTRICT | LAKE SHERWOOD, CA



NV5 provided special inspection services for structural components of the Lake Sherwood Pump Station. The project included construction of reinforced concrete foundations, equipment pads, and CMU block walls to support new mechanical and electrical systems. Inspection services included verification of reinforcing steel placement, dowels, anchor systems, embedments, and observation of concrete placement. Masonry inspections were performed to confirm reinforcement, grout placement, and structural compliance. NV5's quality assurance oversight ensured structural integrity and long-term durability of this critical water supply facility.

Waterline Replacements

CITY OF VENTURA | VENTURA, CA

NV5 provided special inspection services for municipal waterline replacement improvements throughout the City of Ventura. The project included installation of new water transmission mains and associated structural appurtenances to enhance system reliability and long-term service life. Our inspectors performed reinforced concrete and structural inspections for thrust blocks, valve vaults, and related infrastructure components. Services included verification of reinforcing steel placement, formwork inspection, anchor bolt alignment, and observation of concrete placement procedures. NV5 ensured compliance with approved plans, structural details, and applicable municipal standards. Through proactive coordination with contractors and City representatives, NV5 supported quality assurance efforts that contributed to safe, durable, and code-compliant water infrastructure improvements.

Project Understanding

The LVMWD was formed in 1958 as local water needs arouse out of a drought that saw local wells run dry and provided the first water deliveries to local customers in 1963. As a municipal water district, it provides potable water, wastewater treatment, recycled water and biosolids composting to more than 70,000 people in western Los Angeles County — including Agoura Hills, Calabasas, Hidden Hills, and Westlake Village — with a 122-square-mile service area providing drinking water, operating the Tapia Water Reclamation Facility to treat sewage, and pioneering the use of recycled water for irrigation since 1983 to conserve potable water supplies. The Las Virgenes Triunfo Joint Powers Authority now serves approximately 100,000 people throughout LVMWD's service area to the extreme western end of Ventura County. LVMWD is active in water conservation, recycling, and investigating innovative technologies, like ocean-based desalination with OceanWell, as ways to improve sustainability through innovation. Additional resources available to the community include the production of Class A compost from treated wastewater through biosolids composting at the Rancho Las Virgenes Composting Facility.



LVMWD relies on imported water from Metropolitan Water District of Southern California, thus it is reliant on the State Water Project and also operates a municipal wastewater collection system and treatment plant (Tapia Water Reclamation Facility) and distributes recycled water. Nearly 40 percent of the LVMWD service area is permanently dedicated as national and state parkland or privately held open space, and habitat conservation and environmental stewardship has become a key factor in project delivery for the District.

LVMWD's mission is dedicated to providing reliable, high-quality water service in a cost-effective and environmentally sensitive manner. NV5 understands this mission and is dedicated to helping LVMWD maintain and meet this mission as we have done in the past with our On-Call Construction Management and Inspection Services. NV5 likewise will work toward LVMWD's Vision of Valuing Every Drop – Bringing Water Full Circle. To this end, NV5 has a wealth of staff who can serve as construction managers, engineers, geotechnical engineers, inspectors, and special inspectors, bringing expertise, value, and resources to LVMWD at moment's notice. With integrity, NV5 makes a commitment to LVMWD, following LVMWD's leadership, collaborating with the required responsibilities to ensure projects are completed on time and on budget. NV5 shares LVMWD's focus on ensuring a reliable water supply, particularly during drought conditions, through conservation programs and infrastructure maintenance.

The FY 2025-26 budget included $153 million for projects enhancing infrastructure resilience, primarily targeting aging pipelines, pump stations, and wastewater treatment facilities. Key projects NV5 can assist with include:

- **Pipeline Replacements:** Ongoing rehabilitation and replacement of aging, high-failure-rate pipes within the 68-mile recycled water ("purple pipe") system.
- **Infrastructure Reliability:** Upgrades to, and repairs of, water pump stations and treatment facilities, such as the Tapia Water Reclamation Facility.
- **System Upgrades:** Continued efforts to replace, rehabilitate, and maintain water and sewer infrastructure.
- **Regulatory Compliance:** Projects designed to meet changing treatment requirements and environmental regulations.

Key projects include:

- **Potable Water Replacement:** Twin Lakes Pump Station, Equestrian Tank Renovation, Cornell Pump Station, Potable Water Systems PLC Upgrade, Building No. 8 Office Space Renovation, Electronic Document Management System, Multi-Site Security Assessment and Improvement, Stunt Road Pump Station Improvements, Pressure Regulation Valve Replacement, Emergency Pipeline Construction Repair, Water Tank Rehab-Jed Smith / McCoy, Westlake Reservoir Water Quality Equipment, PW System Small Valve Replacement, PW System Rehabilitation, Vehicle Replacement Program, Lindero Canyon/Agoura Potable Main Relocation, Potable Water Tank Rehabilitation, Building No 7 Balcony Floor Replacement.
- **Recycled Water:** CIP10849 Parkway Recycled Water Tank Rehabilitation, CIP10850 Indian Hills Recycled

Water Tank Rehabilitation.

- **Sanitation:** SCADA System Communications, Multi-Site Security Assessment and Improvement, Tapia Flow Equalization, Lift Station, Fire Hardening, New RAD Well and Pumps, Tapia Influent Pump Replacement, Trunk Sewer Improvements, Tapia Secondary Clarifier Rehabilitation, Tapia Primary Clarifiers Rehabilitation, Tapia Tertiary Filter Influent Valve/Backwash, Tapia Bisulfite Line Replacement, Rancho Dewatering Reactor Building Patio Cover, Rancho Metering Bin Replacement, NEW - Tapia Process Pipe/Tank Painting, NEW - Forklift (Rancho), NEW - Rancho Site Security.

Common Goals: We understand that it is imperative to work closely with LVMWD to ensure a successful project. The common goals shared with LVMWD:

- Complete the project on time and on schedule.
- Develop an integrated team with LVMWD, keeping LVMWD informed.
- Document the quality of Contractor's work.
- Resolve and document construction issues promptly with LVMWD, the Design Engineer, and the Contractor.
- Minimize or eliminate complaints from the public.
- Mitigate foreseeable construction change orders and claims.
- Respond quickly to emergency situations and be accessible 24/7.

NV5's Collaborative Approach

NV5's collaborative and effective approach to on-call construction management and inspection involves a proactive, flexible strategy using task orders to address immediate, fluctuating project needs. Key elements include rapid deployment of qualified personnel for site inspections, strict adherence to quality standards via checklists, comprehensive documentation to manage risks and changes, and constant communication and coordination with LVMWD, achieved via the following:

- **Task-Order Based Structure:** NV5's work is managed through specific, negotiated task orders, defining the scope, budget, and schedule for each assignment on a time-and-materials basis.
- **Internal Compliance & Monitoring:** NV5's continuous monitoring of progress and budget accountability assures projects stay within the constraints of the on-call agreement.
- **Proactive & Flexible Inspection:** NV5's inspectors are adaptable and flexible, being accustomed to visiting multiple, diverse job sites including utility installation, paving, and vertical construction.
- **Comprehensive Documentation:** NV5 understands that construction documentation is one of our key deliverables defending LVMWD's management of public funds through proof that funds were appropriately spent to the quality required by LVMWD's plans and specifications.



- **Technical Expertise & Communication:** NV5's staff features specialized experts ready to assist in verifying that construction complies with plans and specifications, while maintaining clear communication with contractors and LVMWD.
- **Phased Management Approach:** NV5 has expert staff able to provide services in all project phases from start to finish and operations.

Best Practices

- Immediate Mobilization: NV5 has the ability to provide staff on short notice.
- Risk Management: NV5's staff can identify and offer mitigation to potential issues early, such as safety violations or deviations from plans, documenting and coordinating resolutions with LVMWD.
- Safety & Compliance: NV5's staff will verify on-site activities to meet local, state, and federal safety regulations.
- Technology Utilization: NV5 has pioneered CMIS, a comprehensive web-based platform to streamline and house LVMWD's project management, construction management, and inspection needs offering this platform to LVMWD free of charge for each of our projects worked on with LVMWD.

NV5's execution of the work assigned by LVMWD will include:

- **Quality Assurance (QA):** Inspectors perform daily site visits as directed by LVMWD and as outlined in our task orders to monitor compliance with design plans and specifications.

- **Standardized Reporting:** NV5's use of CMIS provides standardized reporting for our on-site inspection staff documenting project history, contractor performance, and field conditions.
- **Corrective Action:** When issues arise, NV5's inspectors use a tiered approach, first requesting corrective action verbally with LVMWD's consent, followed by written corrective action, and finally working with LVMWD to escalate to payment suspensions if necessary.
- **Documentation:** NV5's maintenance of permanent files including digital photos of each construction phase and verification of prevailing wage payroll information, submittals, RFIs, Change Orders, correspondence and the soup-to-nuts database contained in our comprehensive CMIS platform, offered free of charge to LVMWD for all projects NV5 is involved with.

NV5's goal as LVMWD's representative in the construction process is to provide LVMWD with the best possible outcome with the least amount of disruption while keeping the project on budget and on time with great project documentation. NV5's engineers, project managers, construction managers, special inspectors and inspectors bring a positive attitude while exercising tact and good judgment in a professional manner. Any combination of construction phase services is available to LVMWD through NV5's experienced and professional resources. The services will be tailored to suit the size, complexity, and specific project needs of LVMWD's management staff, and the construction, operational, and program needs.

NV5's QA/QC

At NV5, Project Management and QA/QC begin with communication protocols to LVMWD and the Contractor. We are always a phone call away, and everyone from the Construction Manager to the inspection staff carry our electronic tether, our cell phones, 24/7. Key and important discussions will be followed up with formal email correspondence for reference and clarity. Open and continued communication is key to success! NV5 follows QA/QC procedures that encompass the following basic principles to accomplish these tasks:

- Represent Your Best Interest: NV5 will represent LVMWD's best interest in all matters.
- Provide Leadership: NV5's lead personnel are selected and retained because of their leadership abilities and will be key individuals throughout your project.



- Enforce Contract Requirements: NV5 will enforce the contract requirements to make certain all provisions of the contract are met, including quality!
- Take Ownership of Project: NV5 team members will take a *pride of ownership* approach to the engineering and construction of every project.
- Deliver a High-Quality Project: NV5's attention to detail helps deliver a quality project.

The above can be summarized into discrete steps for Construction QA/QC and will be outlined in NV5's Construction Management Plan, including:

- Defining and sharing QA/QC acceptance criteria as outlined in the codes and specifications.
- Reviewing project-specific inspection criteria as outlined in the specifications.
- Development of checklists for testing and startup/commissioning.
- Providing a continuum QA/QC punch list throughout the life of the project.
- Looking ahead, using past experience to provide insights to construction quality.

Recommended Scope Of Work

NV5's Recommended Scope of Work as outlined as follows and will be tailored for each of the task orders on a case-by-case basis.

TASK 1: PRE-CONSTRUCTION SERVICES

1.1 Project Kick-Off Meeting and Construction Management Plan: This is extremely important before meeting with Contractor at the Pre-Construction Meeting to establish with LVMWD and NV5 the mutual communication requirements and project protocols for the rest of the project. Team members get to meet each other and gain understanding of the project. NV5 understands that the LVMWD's PM has a wealth of historical information to relay that affects the project moving forward. Our final plan will incorporate LVMWD's recommendations on the plan and will be delivered within two (2) weeks.

1.2 Pre-Construction Meeting with Contractor: This meeting will include subcontractors, NV5, other agencies/

stakeholders (such as SCE and local City staff), and LVMWD and operations staff, taking the information from the Project Kick-off Meeting and moving it to the next level. While many items are standard for pre-con meetings — such as permitting, utility constraints, RFIs and submittals — the requests for shutdowns, bypassing, startup and testing need to be discussed in depth be shown on the Contractor's critical path baseline schedule. Minutes will be taken by NV5 and uploaded to CMIS shortly after the meeting.

TASK 2: CONSTRUCTION MANAGER/RESIDENT ENGINEER, INSPECTORS AND TESTING SERVICES

NV5 considers Construction Inspection services and our daily construction reports to be a critical element of the project. It is important to document compliance of the Contractor, and if they are not in compliance, alert LVMWD and recommended corrective actions. LVMWD should get what they are paying for, and NV5 is here to provide this key and critical part of the project's QA/QC for continued conformance and compliance with the plans and specifications.

2.1 Project Meetings: These will be held weekly in person, on-site, or over teleconference such as Teams or Zoom to go over the routine elements such as RFIs, submittals, pay apps, change orders, etc., along with project specific and non-routine elements. Additionally, meetings that we anticipate will be necessary are pre-bypass, functionality testing, startup, and other meetings for both the installation and the cutover of the finished product. NV5 will provide an agenda in advance to LVMWD for review and comment, schedule the meeting at the agreed time/location, and distribute minutes shortly thereafter (within three business days), also uploading them to CMIS.

2.2 Project Correspondence and Communication: LVMWD can expect ongoing verbal communication as NV5's staff are equipped with cell phones 24/7, iPads for on-site real time communication with our inspectors, and laptops for other staff such as Construction Managers and engineering staff. NV5 believes in picking up the phone, perhaps starting a three-way call when needed to get to the root of the issue quickly, developing solutions that are in the project's and LVMWD's best interest. All call are followed by written emails and uploading into CMIS for tracking and documentation

2.3 SWPPP, BMPs, NPDES, ISMND Mitigation Measures, and Permit Requirements: These items are critically important, as NV5 understands that most Contractors will be working under LVMWD's NPDES. NV5 will inspect the standard SWPPP requirement for BMPs for dust, erosion control including wind and wet weather, as well as rumble plates for track off. NV5 will manage the Contractor's implementation of and maintenance of the ISMND Mitigation Measures in our daily reports. NV5 will check and double check that environmental and permit requirements are met throughout construction.

2.4 Electronic Document Control System: This is already in place with NV5's free, in-house free electronic document control system called CMIS, which is based on Caltrans requirements and is extremely user friendly. Elements are neatly categorized, logged, and available for downloading and printing at any time by any user with the appropriate access. Additionally, each user is grouped, whether Contractor, LVMWD (Owner), or Construction Management staff with different levels of privileges, allowing internal sharing of documents without including the Contractor. A ball-in-court tag is automatic on all logs for RFIs/submittals/change orders, etc. CMIS contains Inspectors' Daily Reports, WSWD, Pay Application, Project Punch List, Inspection Hours, QA Testing, QC Tests, Submittals, RFIs, General Correspondence, Contract Change Orders, Document Overview, and Project Contacts, Pay Application, Photos, Plans, Specifications and a host of other filing cabinets. NV5 will provide free, online live training sessions for LVMWD staff and the Contractor, and a library of training materials is also accessible online. NV5 has dedicated IT personnel who can answer questions throughout the project, making the use of this system seamless and friendly to all. CMIS is fully archivable at the end of the project providing, LVMWD an electronic copy of organized work.



2.5 Submittal, Requests for Information (RFIs), Change Orders: Review of these items can be performed by NV5 depending on our task order requirements. These will come through CMIS, alerting alert specific users of a ball-in-court with regular pings through email until the issue is resolved. Submittals /RFIs/change orders can sometimes be large in size, and this serves to not overburden or have

rejected emails due to submittal electronic size. The first order of business for NV5's staff is to review the document, understand it, validate it, and recommend a solution for concurrence by LVMWD and their Design Engineer as required. Change orders require an entitlement evaluation prior to looking at labor, materials, and equipment above all else. If necessary, we will ask the Contractor for additional information to provide further clarification. CMIS management provides auto logging and tracking.

2.6 Baseline Schedule, Schedule Updates, Three Week Look Ahead Schedule Review: This is another controlling aspect of the project that NV5 can be principally responsible for. NV5's Construction Manager is also a former scheduler understanding fully the needs of properly tied tasks with predecessors, successors, and milestones. However, float can be hidden with lead/lag commands, and our review will look for these elements since the project owns the float, not the Contractor. The schedule formulates the project key communication points for ease of tracking, and we will provide recommendations to LVMWD's Project Manager for review and approval.

2.7 Photographic Documentation, Inspection, Special Inspection, Materials Testing: These are provided by NV5's in-house staff to show compliance with the contract documents, all permits, CEQA, NEPA, and other special requirements. A simple phone call to NV5's Project Manager mobilizes special inspection and materials testing, including soils compaction, concrete compressive strength, welding inspection, and structural steel placement, as required to show the Contractor's compliance with the project plans and specifications. Within NV5's court as well is the coordination as required to LVMWD, Design Engineers, and other agencies for their inspections. All inspectors have iPads and upload live inspector's reports including photographs to CMIS which is also available at any time live viewing by LVMWD. Prior to startup and testing, NV5 will make certain the Contractor performs the required functionality testing so that startup and testing goes smoothly. NV5 will be on-site during start-up and testing of the facility. NV5's inspectors provide a Daily Inspection Report detailing the Contractor's progress in CMIS.

2.8 Schedule of Values and Progress Payments: The Schedule of Values forms the basis of the progress payment from the Contractor to LVMWD. Of key importance is that larger elements of the bid specs are broken down into discrete roll-up schedules, which add up to the bid specifications for ease of payment request acceptance/defense from the Contractor to NV5 allowing for easy tracking and review. CMIS also tracks and logs progress payments.

2.9 Monthly Progress Report: This is written by NV5 for ease of project summary and potential use in tracking or Board meetings complete with progress photos. Likewise, NV5 can prepare and present board updates based on NV5's Monthly Progress Reports.

2.10 Safety: This is an element of key importance on any project. NV5 has in-house safety staff and will provide their Injury and Illness Prevention Plan (IIPP) for their Construction Inspectors. NV5's inspectors provide daily observation of the Contractor's work for verification of conformance with OSHA requirements, with prompt notification to the Contractor and LVMWD of any observed safety violations.

2.11 Record Drawings: These are ongoing from the start of the project. NV5 will review the Contractor's record drawings on a weekly basis to ensure that the drawings are up to date and accurate. NV5 will review the Contractor's record drawings at the end of each month prior to approving Contractor's monthly progress payment request. NV5's Construction Inspectors also maintain an independent, up-to-date set of record drawings on-site.

TASK 3: PROJECT CLOSE-OUT

3.1 Punch List: Punch lists are created from the inception of the project and constantly cleared before work is covered up. CMIS logs and tracks punch list items complete with photos. Final punch lists will be developed by NV5 and coordinated with LVMWD, their Design Engineer, and the Contractor for outstanding items of work, including all documentation and submittals required by the contract documents, and NV5 will verify that all punch list items have been addressed to the satisfaction of LVMWD and the Design Engineer.

3.2 Closeout: This will culminate with the Contractor's turning the record drawings to LVMWD, as well as an archived copy of CMIS containing the digital and organized copy of the project files — including daily reports, photographs, submittals, RFIs, pay requests, and other documentation.

TASK 4: ENGINEERING

4.1 Additional Support: NV5 can provide task-based support including staff augmentation, feasibility studies, engineering plans and specifications, environmental support and studies, geotechnical engineering and investigations, and regulatory permitting for major initiatives and CIP projects.

H. LEGAL ISSUES & POTENTIAL CONFLICTS OF INTEREST

Litigation History

The industry in which NV5 provides professional services can yield claims that arise from time to time. These claims predominately consist of general allegations related to professional errors or omissions for work performed under a contract or project. Accordingly, NV5 maintains adequate insurance coverage to protect against any and all claims. Furthermore, there are no claims or lawsuits, either threatened or pending, that would impair NV5's ability to perform on this request for proposal.

Conflicts of Interest

NV5 has no current or potential conflicts of interest that would interfere with our ability to provide these services to LVMWD.

Fee Schedule

Effective through December 31, 2026. After this time, NV5 will receive a 3% rate increase for each consecutive year beginning January 1, 2027.

CONSTRUCTION SERVICES	HOURLY RATE **
Senior Construction Manager	$210
Construction Manager	$195
Office Engineer	$130
Senior Construction Inspector * ***	$164
Construction Inspector* ***	$158
Project Controls Engineer	$160
Administration	$100
GEOTECHNICAL/MATERIALS TESTING	**HOURLY RATE ** **
Principal Engineer/Geologist/Consultant	$260
Senior Engineer/Geologist/Consultant (PE, CEG)	$236
Project Engineer/Geologist/Consultant	$204
Senior Staff Engineer/Geologist/Consultant	$181
Staff Engineer/Geologist/Consultant	$164
Project Manager	$208
ICC Special Inspector I / Soil-Asphalt-ACI Technician I (Prevailing Wage)	$148
ICC Special Inspector II / Soil-Asphalt-ACI Technician II (Prevailing Wage)	$152
ICC Special Inspector III / Soil-Asphalt-ACI Technician III (Prevailing Wage)	$159
AWS Certified Welding Inspector I (Prevailing Wage)	$152
AWS Certified Welding Inspector II (Prevailing Wage)	$159
Roofing/Waterproofing Inspector I (Prevailing Wage)	$152
Roofing/Waterproofing Inspector II (Prevailing Wage)	$159
NDT Technician I (UT/Mag Part./Dye Pen.) (Prevailing Wage)	$150
NDT Technician II (UT/Mag Part./Dye Pen.) (Prevailing Wage)	$155
Project Inspector / OSHPD IOR C, DSA PI III (Prevailing Wage)	$154
Project Inspector / OSHPD IOR B, DSA PI II (Prevailing Wage)	$171
Project Inspector / OSHPD IOR A, DSA PI I (Prevailing Wage)	$193
DSA Masonry / Shotcrete Inspection I (Prevailing Wage)	$159
DSA Masonry / Shotcrete Inspection II (Prevailing Wage)	$169
Sample Pickup/Delivery	$96
Saturday Sample Pickup/Delivery	$144
Machine, truck & 1 operator	$280
Machine, truck & operator & helper	$410
Laboratory Technician	$158
Certified Payroll Admin	$61
Court Appearance and Depositions	$590
Clerical	$88
REIMBURSABLE EXPENSES	**COST**
Reproduction	Cost
Consultant Services	Cost + 5%
Automobile Transportation	per IRS standard

* Assumes prevailing wages are applicable for fieldwork.

** Regular rates. Work in excess of 8 hours and work on Saturdays will be billed at 1.5 times the regular rate. Work in excess of 12 hours and work on Sundays and Holidays will be billed at 2 times the regular rate.

*** No allowance has been made for CWAs or PLAs. If the work is subject to a CWA or PLA, additional fees will apply.

Schedule of Rates for Subconsultant Pacific Resources Services

PACIFIC RESOURCES SERVICES RATES

PACIFIC RESOURCES SERVICES		
Staff		**Hourly Rate**
Benjamin Ocasio	Lead Labor Compliance Analyst	$158.09
Morita Capili	Labor Compliance Analyst II	$135.50
Monica Mendez	Lead Site Visits – Analyst 1	$112.92
Evan Ocasio	Office Support - Analyst	$90.34

All hourly costs are fully burdened. Mileage at appropriate IRS rate.

CERTERRA
CSI SERVICES

FEE SCHEDULE

Certerra proposes to provide the above Scope of Services using a fixed fee, time and materials basis in accordance with our standard terms and conditions. The Fees below include all applicable DIR prevailing wage payments, and our CA DIR No. is 100010187. The fees to complete the above Scope of Services follow:

Professional Services	Cost
Inspection (Half Day Minimum)	$130.00/hour
Inspection Overtime	$182.00/hour
Daily Field Expense	$125.00/day
Project Manager	150.00/hour
Project Administration Fee	3%

Contractual Services Agreement

NV5 has reviewed LVMWD's standard Professional Services Agreement and has no exceptions or alterations.

APPENDIX

CONTACT INFO
luanne.bean@nv5.com

EXPERIENCE
35 years

EDUCATION
M.S. Civil Engineering

B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 50129

Former Class A General Engineering Contractor

REGISTRATIONS
FEMA OPS - I

HAZMAT First Responder/ Operations Level

DOT Offers of Bulk and Non-Bulk HAZMAT Packages

Nuclear Waste Safety for Workers

SCRRA Safety Trained

Confined Space Entry Trained

LUANNE BEAN, PE

Project Manager + Construction Manager

Ms. Bean has more than 35 years of experience in the engineering, design, and construction of water and wastewater projects. As a Registered Civil Engineer and a former Class A General Engineering Contractor, Ms. Bean has seen construction from both sides of the fence. Her technical skills include specialized structural analysis and design of large 600-MGD water treatment plants, pipelines up to 12 feet in diameter, mechanical analysis, SCADA & I&C oversight and coordination, diesel generator design and AQMD permitting, the preparation of engineering plans, specifications and cost estimates, as well as construction management. She has held various positions with many public agencies, including Structural Discipline Director for Southern Nevada Water Authority's $6B CIP program, for which she specialized in structural and forensic analysis, Project Manager for the Metropolitan Water District, and Project Officer in charge of disaster funding across three states and five counties for FEMA.

Project Experience

On-Call Construction Management and Inspection Services

LAS VIRGENES MUNICIPAL WATER DISTRICT | CALABASAS, CA

Project Manager/Construction Manager. Ms. Bean provides as-needed Construction Management and Inspection Services to the District, including construction inspection and special inspection services. NV5 has completed many projects with LVMWD, including the Deer Lake Project for a 1-MG tank replacement, including electrical inspection, soils compaction and concrete testing, as well as electrical inspection services for the Stationary Emergency Generators for the Potable Water Pump Stations Project with 200 KW and 600 KW generators installed at four sites.

Diversion Sewer Pipes to Abandon Fox Hills Pump Station

CITY OF CULVER CITY | CULVER CITY, CA

QA/QC Manager. Ms. Bean served as QA/QC Manager for the Diversion Sewer Pipes to Abandon Fox Hills Pump Station project. NV5 provided construction management and inspection services for the project, which constructed 1,230 LF of 18-inch diversion sewer mains from Fox Hills pump station to Bankfield pump station. The project included constructing 18-inch FRPM (Fiberglass-reinforced pipe) in a 36-inch RCP casing by microtunneling (1,223 LF) at an average depth of 28 feet to 30 feet; constructing new manholes; pavement restoration of all existing improvements; 18-inch force main tie-in near City of Los Angeles manhole and associated temporary bypass system; 1,600 LF of abandonment of portions of the existing dual force 12-inch and 18-inch mains; 1,230 LF of CCTV inspection; and demolition of Fox Hills pump station and the Overland pump station.

Diversion Pipeline

CITY OF CULVER CITY | CULVER CITY, CA

Project Manager/Construction Manager. Ms. Bean oversaw the construction management, inspection and engineering services for the construction of sewer main diversion pipes reversing sewer flow via conventional cut and cover as well as trenchless jack and bore methods to abandon Mesmer and Overland Sewer Pump Stations. This also involved extensive permits and coordination with Caltrans, the City of Los Angeles, and the City of Culver City for these jack and bore pipelines underneath the I-405 and Route 90. The goal of the project was to divert flows from four of the City's sewer pump stations to a new sewage pump station, Bankfield Station.

Bankfield Sewage Pump Station

CITY OF CULVER CITY | CULVER CITY, CA

Project Manager/Construction Manager. Ms. Bean oversaw the construction management and inspection services for the construction of the Bankfield Sewer Pump Station adjacent to the Caltrans Right-of-Way. The new pump station receives diverted flows from two existing pump stations, and diverted flows from two more pump stations at a later date. There are two submersible pumps, a flow meter vault, a valve vault, a bypass vault for the two force mains, an emergency diesel-fueled backup electrical generator, and complete SCADA systems. NV5 assisted with the final design and implementation of the emergency diesel generator as well as pipeline redesign for the sewer force main, including the AQMD permitting, as the original plans did not accommodate a generator. There is also a 25-foot-by-20-foot building to house instrumentation and SCADA systems, a bathroom and electrical components. *This project is an American Public Works Association BEST Awards winner.*

Reverse Osmosis Water Treatment Plant

CITY OF BEVERLY HILLS | BEVERLY HILLS, CA

Project Manager. Ms. Bean led the team responsible for serving as the City's (Owner's) Representative during the design and construction of a pre-treatment system for the City's existing Reverse Osmosis Water Treatment Plant. NV5 oversaw the planning and initial design to construct this project as a design-build facility for the City. Once the project was initially bid as a design-build project, the City opted instead to finalize the design and re-bid the project under a conventional design-bid-build option. NV5 continued throughout this process as the Owner's Representative to oversee the second bidding for conventional construction and continued on as Construction Manager as well as provided full-time inspection services throughout bidding, material procurement, and construction, commissioning, testing, Division of Drinking Water permitting, and training of City Operations Staff.

Emergency Pearl Avenue Sewer Replacement

CITY OF COMPTON | COMPTON, CA

Project Manager/Construction Manager. Ms. Bean lead the team to provide a quick two-week design of City of Compton's failed Pearl Avenue sewer that was overflowing on an emergency basis. Ms Bean then spearheaded the efforts for bids to the City on an emergency bid to obtain a Class A General Engineering Contractor, then recommended award the lowest responsive and responsible bidder. During construction, Ms. Bean led the team in Construction Management and Inspection to support the City's effort in the emergency replacement of 3,600 LF of failed 8-inch sewer main in a residential district with connections in a busy four-lane arterial roadway. Through Ms. Bean's team efforts, start to finish, this project was completed in approximately three months.

La Palma Avenue and Tustin Avenue Water Main Replacement at OCTA Railway Crossing

CITY OF ANAHEIM PUBLIC UTILITIES DEPARTMENT | ANAHEIM, CA

Project Manager. Ms. Bean is overseeing the construction management and inspection services as Metrolink with the Orange County Transportation Authority, under the governing body of Southern California Regional Rail Authority (SCRRA), is expanding the Anaheim Canyon Metrolink Station, which includes the addition of a train track crossing at La Palma Avenue and one 12-inch water main at Tustin Avenue. The water main replacement project involves bore and jack installation of two new water mains (12-inch and 36-inch) underneath the OCTA railroad track in La Palma Avenue and Tustin Avenue, followed by the abandonment of the existing water mains. The project includes close coordination with the City, OCTA, Metrolink, Southern California Regional Rail Authority (SCRRA), among other agencies.

Graves Reservoir Replacement

CITY OF SOUTH PASADENA | SOUTH PASADENA, CA

Project Manager/Construction Manager. Ms. Bean provided comprehensive construction management services on the demolition reservoir and construction of the new 1.2 mg partially buried cast-in-place Graves Reservoir sited in a residential neighborhood. An existing well was re-equipped as the source of groundwater for the reservoir. The existing well pump was renovated and a new pumping station with two 1,400 GPM VFD pumps that pump from the reservoir to City water system. A new Sodium Hypochlorite Generation System, new pretreatment with state-of-the-art GAC for PCE and CCl4 removal followed by a new Ion Exchange System for removal of Nitrate as NO3, ClO4, and sulfate, was installed. NV5 provided full-service CMS, including Construction Management, Inspection, Lead and Asbestos Demolition Oversight, Public Relations, SRF Loan Reimbursement Management, Biological Monitoring, Geotechnical and Materials Testing.

CONTACT INFO
peter.salgado@nv5.com

EXPERIENCE
34 years

EDUCATION
B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 63159

PETER SALGADO, PE

Construction Manager

With nearly 35 years of experience, Mr. Salgado has managed and delivered a variety of public works projects, including water, sewer and storm drain improvements, street improvements, vertical construction and tenant improvements, and parks and landscaping improvements. Working with a variety of agencies, he is thoroughly familiar with local, state and federal procedures.

Project Experience

On-Call Construction Inspection Services

CITY OF SAN JUAN CAPISTRANO | SAN JUAN CAPISTRANO, CA

Project Manager. Mr. Salgado oversaw NV5's on-call inspection services of the City's water and sewer projects. He has also provided project management, construction management and oversaw construction inspection services to the City on numerous projects, including: the $9M 760 S. Zone Replacement; the $15M Terminal Reservoir No. 3 Project; the $5.4M Krum Reservoir and Pipeline Stabilization; and the $6M SC04 Pipeline Project.

Indiana Street Water Improvements

CITY OF EL SEGUNDO | EL SEGUNDO, CA

Project Manager. Mr. Salgado was the primary point of contact for our team's construction inspection services and materials testing for the Water Main Improvements on Indiana Street between E. Holly Avenue and E. Mariposa Ave. The improvements include the construction of 10-inch ductile-iron water main, and 6-inch and 4-inch ductile-iron water main or laterals; installation of gate valves and boxes; construction of new water service connections; abandoning existing water mains; providing uninterrupted water service during construction; providing traffic control; potholing; coordination with utility agencies; survey; trenching; and striping.

As-Needed Inspection Services

IRVINE RANCH WATER DISTRICT | IRVINE, CA

Project Manager. Mr. Salgado oversaw NV5's staff augmentation inspection services for domestic water, recycled water and sanitary sewer projects for the Irvine Ranch Water District. NV5 services included tracking project progress, inspection of grade and alignment of the water districts utilities, inspection of the testing and approving the installation of the water districts utilities, creating and maintaining the daily reports and project files, inspection of PCC structures such as manholes, thrust blocks and overflow, headwall, spillway, vehicle crossing and outflow PCC structures for NTS Basins. Projects include new home developments and NTS Basins.

Citywide Sewer Main Replacement

CITY OF TORRANCE | TORRANCE, CA

Construction Manager. Mr. Salgado managed the team that provided construction inspection services for this citywide sewer main improvement project. The project included rehabilitating the existing sewer system in various locations throughout the City. The scope of work included point repairs, removal and replacement, pipelining sections of sewer where damage was repaired by insertion of a plastic liner, thereby eliminating the need for trench excavation and minimizing public impacts. Where trench excavation was required, damaged sections of pipe were replaced with new vitrified clay pipe (VCP).

CONTACT INFO
jim.daly@nv5.com

EXPERIENCE
37 years

EDUCATION
B.S. Civil Engineering

LICENSES/CERTIFICATES
Civil Engineer (CA)
No. 45612

AFFILIATIONS
American Public Works Association

American Society of Civil Engineers

JIM DALY, PE

Construction Manager

Mr. Daly has more than 37 years of experience managing both horizontal and vertical capital improvement projects. As Assistant Deputy Director (Road Maintenance) for the County of Los Angeles, Mr. Daly managed approximately 500 employees responsible for the maintenance and repair of roadways, sidewalks, and parkway trees. He has experience managing myriad projects — including federally funded — for various departments, including Parks and Recreation, Beaches and Harbors, and Public Library departments, and has managed and designed numerous flood control facilities, including storm drains, debris basins and pump plants.

Project Experience

Automatic Meter Reading (AMR) Upgrade, Phase IV

CITY OF SOUTH GATE | SOUTH GATE, CA

Construction Manager. Mr. Daly provided construction management services on the City's Automatic Meter Reading (AMR) Upgrade, Phase IV project. This project was crucial for upgrading the City's water infrastructure, addressing the aging infrastructure, and enhancing overall system performance. The new AMR-based meters will provide more accurate and timely readings, reducing manual labor and improving customer service. The replacement of old meters will also help prevent leaks and inaccuracies in the billing process, leading to better resource management and water conservation. The work consisted of removing and replacing approximately 1,730 existing ¾-inch, 1-inch, 1-1/2-inch and 2-inch water meters in Route C-3 of the City of South Gate Water distribution system with new Automatic Meter Reading (AMR) based water meters. Work also included replacing and connecting piping and the valve on the customer side connection where needed. NV5's services included contract administration, construction inspection, utility coordination, labor compliance and project close-out services.

Engineering Services for AMI End Point Water Meter System Upgrades

CITY OF GLENDALE | GLENDALE, CA

Project Engineer. Mr. Daly provided engineering services for the City's replacement of its Advanced Metering Infrastructure (AMI) End Point Water Meter System. The City's AMI points had been failing and dropping offline about eight years after a new system for 35,000 meters was installed, requiring manual or drive-by meter reading. Some of the endpoints had also stopped communicating with CCUs in the field. NV5's team researched software and hardware installers and evaluated options on upgrading or replacing the AMI end points and CCUs. We prepared bid documentation, including specifications and a construction cost estimate, for the City's RFP for a contractor for the project and provided bid assistant services.

Principal Engineer

LOS ANGELES COUNTY PUBLIC WORKS

Principal Engineer. Mr. Daly managed field operations with a staff of 125 employees maintaining and improving roads, sidewalks, parkway trees, spreading grounds, debris basins, channels, pump plants, and ocean outlets. He managed Capital Project Improvement Projects for various County Departments, including Parks and Recreation, Beaches and Harbor, and Public Library. These projects included many complex projects requiring extensive coordination with local, state, and federal agencies.

CONTACT INFO
india.allen@nv5.com

EXPERIENCE
9 years

EDUCATION
M.S. Civil Engineering (Coastal Engineering)

B.S. Civil Engineering

LICENSES/CERTIFICATES
Certified Construction Manager (CCM), No. 43234

Qualified SWPPP Developer (QSD) & Qualified SWPPP Practitioner (QSP), No. 84350

Metrolink Railroad Safety Contractor Safety Trained, No. 26471E22

INDIA ALLEN, CCM, QSD/P

Construction Manager

Ms. Allen is a proactive, self-motivated Certified Construction Manager who has managed at-risk projects throughout Southern California. She is experienced in Microsoft Office, Procore, Primavera P6, Microsoft Projects, AutoCAD, and Bluebeam Revu. Her solid negotiation and communication skills along with proven project management skills allow her to effectively interact with clients as well as construction trades for a variety of public works projects.

Project Experience

Indian Canyon Drive Sewer Project

CITY OF PALM SPRINGS | PALM SPRINGS, CA

Construction Manager. Ms. Allen is serving as Construction Manager for the Indian Canyon Drive Sewer Project. NV5 is providing construction management and inspection services for the project, which will install 8,875 feet of 10-inch PVC sewer pipeline on North Indian Canyon Drive. Twenty-four manholes will be constructed along the route. Microtunneling will be used for 1,200 feet, and the remaining 7,675 feet will be installed via open-cut trenching. Installation involves excavation, pipe laying, backfilling, surface restoration, and manhole construction using precast or cast-in-place structures.

Diversion Sewer Pipes to Abandon Fox Hills Pump Station

CITY OF CULVER CITY | CULVER CITY, CA

Assistant Construction Manager. NV5 provided construction management and inspection services for the Diversion Sewer Pipes to Abandon Fox Hills Pump Station project. The project constructed 1,230 LF of 18-inch diversion sewer mains from Fox Hills pump station to Bankfield pump station. The project included constructing 18-inch FRPM (Fiberglass-reinforced pipe) in a 36-inch RCP casing by microtunneling (1,223 LF) at an average depth of 28 feet to 30 feet; constructing new manholes; pavement restoration of all existing improvements; 18-inch force main tie-in near City of Los Angeles manhole and associated temporary bypass system; 1,600 LF of abandonment of portions of the existing dual force 12-inch and 18-inch mains; 1,230 LF of CCTV inspection; and demolition of Fox Hills pump station and the Overland pump station.

Reverse Osmosis Water Treatment Plant

CITY OF BEVERLY HILLS | BEVERLY HILLS, CA

Assistant Construction Manager. NV5 served as the City's (Owner's) Representative during the design and construction of a pre-treatment system for the City's existing Reverse Osmosis Water Treatment Plant. Our team oversaw the planning and initial design to construct this project as a design-build facility for the City. Once the project was initially bid as a design-build project, the City opted instead to finalize the design and re-bid the project under a conventional design-bid-build option. NV5 continued throughout this process as the Owner's Representative to oversee the second bidding for conventional construction and continued on as Construction Manager as well as provided full-time inspection services throughout bidding, material procurement, and construction, commissioning, testing, Division of Drinking Water permitting, and training of City Operations Staff. The project included evaluation and necessary upgrades to the entire water supply system.

CONTACT INFO
haykaz.aghajanian
@nv5.com

EXPERIENCE
20 years

EDUCATION
B.S. Civil Engineering

LICENSES/CERTIFICATES
Civil Engineer (CA)
No. 53866

HAYKAZ AGHAJANIAN, PE

Construction Inspector

Mr. Aghajanian has more than 20 years of utility and civil engineering experience. His experience includes preparing plans, specifications and cost estimates; performing plan reviews; and providing construction inspection services for a variety of utility and public works projects.

Project Experience

Crowther Sanitary Sewer Pipeline Replacement

CITY OF PLACENTIA | PLACENTIA AND FULLERTON, CA

Senior Construction Inspector. Mr. Aghajanian served as Senior Construction Inspector on the Crowther Sanitary Sewer Pipeline Replacement project, which included replacement of approximately 7,400 LF of gravity sewer pipeline in Crowther Avenue, Placentia Avenue, and Orangethorpe Boulevard, located within the Cities of Placentia and Fullerton. The work involved installation of 15-inch, 18-inch, and 22-inch PVC and fused HDPE sewer pipeline and manholes. The work also included reconnection into all of the existing gravity mains and service laterals with a terminus tie-in connection at the existing Orange County Sanitation District's trunk line on State College Boulevard. The project, which included an encasement crossing underneath the 57 freeway in Caltrans right-of-way, involved coordination with multiple agencies, including Caltrans, the Orange County Sanitation District, Golden State Water, Department of Health Services, the City of Fullerton, and other utility and governmental agencies. NV5 provided construction management, inspection and materials testing services for this project.

Potable Water Valve Replacement FY 2021

CITY OF ANAHEIM PUBLIC UTILITIES DEPARTMENT | ANAHEIM, CA

Construction Inspector. Mr. Aghajanian provided construction inspection services for this design-build water valve replacement project. The work involved the standard water main valve replacements, including shutdowns, dewatering, excavation, disinfection and pressure testing, followed by final street restoration under the direction of Anaheim Public Utilities with NV5's Resident Engineering and Inspection Services.

Emergency Pearl Avenue Sewer Replacement

CITY OF COMPTON | COMPTON, CA

Construction Inspector. Mr. Aghajanian provided construction inspection services for failed Pearl Avenue sewer that was overflowing. The project consisted of the emergency replacement of 3,600 LF of failed 8-inch sewer main in a residential district with connections in a busy four-lane arterial roadway.

On-Call Inspection Services

CITY OF SEAL BEACH | SEAL BEACH, CA

Construction Inspector. Mr. Aghajanian provides on-call inspection of both CIP and developer projects for the City. Safety is a major concern for the City and in addition to our regular daytime inspectors, our inspectors have been called for night and weekend work to ensure traffic control is properly set up for items like Caltrans right-of way. Our inspectors provide inspections to document and determine the acceptability of the construction work in accordance with the City's approved plans, specifications, and standard details.

CONTACT INFO
bob.bean@nv5.com

EXPERIENCE
30 years

EDUCATION
A.A. Business Administration

Apprenticeship Program, IBEW Local 11 Los Angeles

REGISTRATIONS
Former C10 Electrical Contractor

Journeyman Electrician

Union Steward

AFFILIATIONS
IBEW Board of Trustees

NECA Board of Trustees

ROBERT BEAN

Construction Inspector/Special Inspector (Electrical)

Mr. Bean has more than 30 years of experience as an electrical inspector performing site quality control to ensure the Contractor constructs the work in accordance with the approved plans and specifications.

Project Experience

On-Call Construction Management and Inspection Services

LAS VIRGENES MUNICIPAL WATER DISTRICT | LAS VIRGENES, CA

Construction Inspector. Mr. Bean provided construction inspection for the Cold Canyon Road Pump Station, Seminole Pump Station, Twin Lakes Pump Station, and Jed Smith Pump Station emergency generator installation and underground conduit projects.

J. W. Johnson Reservoir Facility Valve Replacements & Site Improvements

LONG BEACH WATER DEPARTMENT | LONG BEACH, CA

Construction Inspector. Mr. Bean provided construction inspection for this project involving replacement of four underground water main valves, installation of five storm drain inlets, construction of a containment cell for an indoor above-ground chlorine tank, construction of a large concrete reinforced storage pad, trenching for the installation of electrical conduit, and re-paving of surface areas to allow for proper drainage.

Potable Water Valve Replacement FY 2021

CITY OF ANAHEIM PUBLIC UTILITIES DEPARTMENT | ANAHEIM, CA

Construction Inspector. Mr. Bean provided construction inspection for this design-build water valve replacement project. The work involved standard water main valve replacements, including shutdowns, dewatering, excavation, disinfection, and pressure testing, followed by final street restoration under the direction of Anaheim Public Utilities with NV5's Resident Engineering and Inspection Services.

15th Street & Cherry Avenue Sewer Replacement

LONG BEACH WATER DEPARTMENT | LONG BEACH, CA

Construction Inspector. Mr. Bean provided construction inspection for the replacement of 565 lineal feet of 8-inch cement sewer to 12-inch VCP sewer, and the reconnection of the sewer laterals. This project involved full sewer by-pass which was buried temporarily within the street that Mr. Bean constantly monitored for spill prevention. This was a high profile project that Mr. Bean was also responsible for on-going public relations as the project progressed. He was also in charge of paving inspection for the re-paving of Cherry Avenue.

Group 12 CIPP Sewer Relining Program

LONG BEACH WATER DEPARTMENT | LONG BEACH, CA

Construction Inspector. Mr. Bean provided construction inspection for the Long Beach Water Department's Group 12 CIPP sewer relining program. This project involved providing construction oversight and observation of LBWD's contractor to install almost 15,000 LF of 8-inch, 10-inch and 12-inch cured-in-place sewer cleaning, pre-lining video, lining, and post-lining video. Point repairs and manhole rehabilitations were also undertaken. Once the installation of the CIPP began, Mr. Bean coordinated with the LBWD for shutting off water services for the various residential and businesses along the sewer line routes. Once curing was completed, a post lining video was run, followed by re-installation of the laterals and top hat installation on select laterals.

CONTACT INFO
joe.chiquete@nv5.com

EXPERIENCE
40 years

EDUCATION
B.A. Urban and Regional Planning, Environmental Analysis

JOE CHIQUETE

Construction Inspector

Mr. Chiquete has more than 40 years of experience working for the City of Laguna Beach on Public Works projects, including utility underground projects. He is adept at working with residents, business owners and project stakeholders, and is excellent as a public contact and interface with project team members. Mr. Chiquete's ability to problem-solve, research techniques and write reports makes him an asset to any team. He has skillfully prepared and presented visual and oral reports before various community associations, including city councils, planning commissions, design review boards, civic associations and community groups. He has expertise in several disciplines, including Urban Planning, Architecture, Environmental Planning, Construction Techniques, Transportation and Public Policy.

Project Experience

Rural Ridge Circle and Wilshire Avenue Water Main Replacement

CITY OF ANAHEIM | ANAHEIM, CA

Construction Inspector. Mr. Chiquete provided construction inspection services for this water main replacement project. The scope of work consists of two water main improvement areas: the Rural Ridge area and Wilshire-Pearl area. The Rural Ridge improvement area includes installation of a 12-inch PVC pipe (1,560 LF) , an 8-inch PVC pipe (1,820 LF), an 8-inch PVC pipe (480 LF), and a 6-inch PVC pipe (370 LF). The Wilshire-Pearl improvement area includes installation of 12-inch Ductile-Iron pipe (1915 LF) and 8-inch Ductile-Iron pipe (825 LF).

Drilling & Equipping of New Water Wells North Long Beach 13 & North Long Beach 14

LONG BEACH UTILITIES DEPARTMENT | LONG BEACH, CA

Construction Inspector. Mr. Chiquete is providing inspection services for this project. As a subconsultant to Wood Rodgers, NV5 is providing Construction Management and Inspection Services for the drilling and equipping of two separate potable water supply wells, Wells North Long Beach 13 & 14, with a design capacity of 2,500 gallons per minute. Located within a City Park, the project requires coordination with residents and management of unhoused individuals. Final well design includes two separate wells housed within a CMU building, with a submersible turbine pump and motor, electrical and SCADA equipment, above and below grade piping, valving and appurtenances, electrical, instrumentation and control, connection to existing water distribution system, testing and disinfection, and site restoration.

Sidewalk & Curb Ramp Reconstruction (Phase 2)

CITY OF EL MONTE| EL MONTE, CA

Construction Inspector. Mr. Chiquete provided inspection services for this federally-assisted Sidewalk & Curb Ramp Reconstruction Phase 1 & 2. The scope of work includes parkway improvements along various local/residential roadways within the City and includes the reconstruction of existing PCC sidewalks, curb and gutter, driveways, and ADA curb ramps; tree root pruning; and potential tree removal/ replacement.

CONTACT INFO
mike.helma@nv5.com

EXPERIENCE
30 years

EDUCATION
B.S. Civil Engineering

LICENSES
LEED Accredited Professional

MIKE HELMA, LEED AP

Construction Inspector

Mr. Helma has more than 30 years of experience in construction management and inspection with specific expertise in sewer, water and storm drain systems, street improvements, heavy grading, concrete structures, traffic signals, paving and landscaping. He is a LEED Accredited Professional and is adept at managing and inspecting large- and small-scale projects. He has also served as augmented staff for various public works departments.

Project Experience

Septic-to-Sewer Project, Phase II

HI-DESERT WATER DISTRICT | YUCCA VALLEY, CA

Construction Inspector. NV5 is serving as the Owner's Representative and providing construction support services for Phase II of the District's Septic-to-Sewer project in Yucca Valley. Identified by the Regional Water Quality Control Board as a priority area, the Town is transitioning from septic systems to a centralized wastewater system.

Water Main Improvements on Indiana Street

CITY OF EL SEGUNDO | EL SEGUNDO, CA

Construction Inspector. Mr. Helma provided construction inspection services for the Water Main Improvements on Indiana Street between E. Holly Avenue and E. Mariposa Avenue. The improvements included the construction of 10-inch ductile-iron water main, and 6-inch and 4-inch ductile-iron water main or laterals; installation of gate valves and boxes; construction of new water service connections; abandoning existing water mains; providing uninterrupted water service during construction; providing traffic control; potholing; coordination with utility agencies; survey; trenching; trench paving; and striping.

Pressure Regulating Stations (PRS) Rehabilitation/Replacement

CITY OF ANAHEIM PUBLIC UTILITIES DEPARTMENT | ANAHEIM, CA

Construction Inspector. Mr. Helma provided construction inspection services for the Anaheim Public Utilities Department's pressure regulating stations rehabilitation/replacement project. The City replaced or relocated five pressure-regulating stations throughout the City. Mr. Helma's responsibilities included observing water main shutdowns coordinated by APU staff, ensuring traffic control plans were set up per the approved plans, observing materials sampling and testing services, preparing daily activities reports, and attending biweekly construction progress meetings.

Edgewater Sewer Lift Station Replacement

CITY OF HUNTINGTON BEACH | HUNTINGTON BEACH, CA

Construction Inspector. Mr. Helma provided construction inspection services for the replacement of the Edgewater Sewer Lift Station. The project consisted of the abandonment and demolition of an existing sewer lift station and construction and installation of a new 1,000-gpm submersible sewage lift station and force main. The project also included installation of new gravity sewer, storm drain, water main, and site restoration. The project also included the installation of sheet pile shoring for the list station. The 30-foot interlocking sheet piles were installed to allow the construction of the below grade sewer lift station and holding tank.

CONTACT INFO
kenneth.hicks@nv5.com

EXPERIENCE
18 years

LICENSES/CERTIFICATES
Qualified SWPPP Practitioner (CA) No. 27259 (CASQA)

Certified Inspector of Sediment and Erosion Control

Nuclear Gauge Certified

Railroad Safety

OSHA 30-Hour

OSHA 10-Hour

KENNETH P. HICKS, QSP

Construction Inspector

Mr. Hicks has 18 years of experience providing construction inspection services for various capital improvement projects, including water/wastewater improvements, street improvements, wet and dry utilities, grading, stormwater, and landscaping and irrigation. He has provided quality assurance testing for highways, bridges and streets, sewer and water systems, and other structures using nuclear gauge or assigned equipment. He is experienced in working with local, state and federal facilities regarding land use, including right-of-way, construction, and easements.

Project Experience

La Palma Avenue and Tustin Avenue Water Main Replacement at OCTA Railway Crossing

CITY OF ANAHEIM | ANAHEIM, CA

Construction Inspector. Mr. Hicks is providing construction inspection services for the City's La Palma Avenue and Tustin Avenue Water Main Replacement at OCTA Railway Crossing project. Metrolink, with the Orange County Transportation Authority, is expanding the Anaheim Canyon Metrolink Station, which includes the addition of a train track crossing at both La Palma Avenue and Tustin Avenue. The water main replacement project involves bore and jack installation of two new water mains underneath the OCTA railroad track in La Palma Avenue and Tustin Avenue, followed by the abandonment of the existing water mains that will now be too shallow and are not adequately reinforced to carry the load underneath the proposed train track. The project includes close coordination with the City, OCTA, Metrolink, Southern California Regional Rail Authority (SCRRA), among other agencies.

On-Call Inspection Services

CITY OF SEAL BEACH | SEAL BEACH, CA

Construction Inspector. Mr. Hicks provides on-call inspection services for the City. Safety is a major concern for the City, and in addition to our regular daytime inspectors, our inspectors have been called for night and weekend work to ensure traffic control is properly set up for items like Caltrans right-of way. Our inspectors provide inspections to document and determine the acceptability of the construction work in accordance with the City's approved plans, specifications, and standard details. Our NV5 inspectors report directly to the City's Project Manager.

Basin D Sanitary Sewer Rehabilitation

CITY OF SAN MATEO | SAN MATEO, CA

Construction Inspector. Mr. Hicks provided construction inspection services including inspecting spot and segment repairs for sanitary sewers at 315 locations; full sanitary sewer pipeline replacement by either open cut or pipe bursting the existing VCP pipe in the ground using a fused/welded HDPE pipe; manhole replacement; reconnection of sewer laterals; CCTV inspections; and site restorations.

On-Call Inspection Services

CITY OF BELLFLOWER | BELLFLOWER, CA

Construction Inspector. Mr. Hicks provides as-needed construction inspection services as part of NV5's On-Call Inspection Services contract with the City for various capital improvement projects and encroachment permits throughout the City.

CONTACT INFO
dean.jensen@nv5.com

EXPERIENCE
39 years

EDUCATION
A.A. General Education

LICENSES/CERTIFICATES
OSHA 30-Hour Safety Certificate No. 1598056

OSHA Title 28 Confined Space Training Certificate

Class A Commercial Driver's License (CA)

American Concrete Institute Certificate

Title 24 Energy Compliance Field Inspection Certificate

Americans With Disabilities Act – California Disabled Accessibility Certificate

SWPPP – Construction Site Storm Water Management Certificate

ICBO Reinforced Concrete Inspection & ACI Field Grade I Tech Certificates

International Building Code No. 0885400-01

International Residential Code No. 0885400-02

ICBO Uniform Building Code No. 088400-10

ICBO Uniform Plumbing Code Certificate

DEAN JENSEN

Construction Inspector

Mr. Jensen has more than 39 years of experience in engineering, construction management and inspection. He has provided construction management and inspection services on a wide variety of public works capital improvement projects, including water, sewer, storm drain, street, buildings/facilities, and park and landscaping improvements.

Project Experience

Reverse Osmosis Water Treatment Plant

CITY OF BEVERLY HILLS | BEVERLY HILLS, CA

Construction Inspector. Mr. Jensen provided construction inspection services for upgrades to a pre-treatment system for the City's Reverse Osmosis Water Treatment Plant. NV5 oversaw the planning and initial design to construct this project as a design-build facility for the City. Once the project was initially bid as a design-build project, the City opted instead to finalize the design and re-bid the project under a conventional design-bid-build option. NV5 continued throughout this process as the Owner's Representative to oversee the second bidding for conventional construction and continued on as Construction Manager as well as provided full-time inspection services throughout bidding, material procurement, and construction, commissioning, testing, Division of Drinking Water permitting, and training of City Operations Staff. The project included evaluation and necessary upgrades to the entire water supply system.

Diversion Pipeline

CITY OF CULVER CITY | CULVER CITY, CA

Construction Inspector. Mr. Jensen provided construction inspection services for the construction of diversion sewer pipes to abandon Mesmer and Overland Sewer Pump Stations involving conventional cut and cover as well as trenchless jack and bore underneath the Caltrans ROW in multiple jurisdictions, including the City of Los Angeles. The goal of the project was to divert flows from four of the City's sewer pump stations to a new sewage pump station, Bankfield Station.

CIP 421 Annual Sewer Improvements Phase I

CITY OF HERMOSA BEACH | HERMOSA BEACH, CA

Construction Inspector. Mr. Jensen provided construction inspection services for the City's CIP 421 Annual Sewer Improvements project. The project included the replacement or rehabilitation of multiple sewer segments throughout the City. The scope of work includes the trenchless CIPP rehabilitation of 29 sewer segments, construction of 7-point repairs, and installation of 2 new maintenance access holes throughout the City.

Pressure Regulating Stations (PRS) Rehabilitation/Replacement

CITY OF ANAHEIM PUBLIC UTILITIES DEPARTMENT | ANAHEIM, CA

Construction Inspector. Mr. Jensen provided construction inspection services for the Anaheim Public Utilities Department's pressure-regulating stations rehabilitation/replacement project. The City replaced or relocated five pressure-regulating stations throughout the City. Mr. Jensen's responsibilities included observing water main shutdowns coordinated by APU staff, ensuring traffic control plans were set up per the approved plans, observing materials sampling and testing services, preparing daily activities reports, and attending biweekly construction progress meetings.

CONTACT INFO
david.ledyard@nv5.com

EXPERIENCE
40 years

EDUCATION
A.A. Engineering

DAVID LEDYARD

Construction Inspector

Mr. Ledyard has more than 40 years of engineering and construction inspection experience. He has served as both a supervisory inspector, overseeing permit inspectors, as well as a lead inspector on various capital improvement projects, including sewer, water, storm drain, and street improvements.

Project Experience

Blandwood Road/True Avenue Sewer Lift Station Replacement

CITY OF DOWNEY | DOWNEY, CA

Construction Inspector. Mr. Ledyard provided construction inspection services for the City during the replacement of two old sewer lift stations on Blandwood Road and True Avenue with a new wet well submersible type sewer lift station. The project included construction of new sewer gravity and force main lines to deliver from and convey raw sewage to the new station. The project also included the construction of AC pavement, PCC sidewalks, driveways, and curb and gutter.

Brookshire Avenue Water System Improvement Project (Gardendale Street to Imperial Highway and Firestone Boulevard to Florence Avenue)

CITY OF DOWNEY | DOWNEY, CA

Construction Inspector. Mr. Ledyard provided construction inspection services for the Brookshire Avenue Water System Improvement Project. The scope of work included installation of 145 feet of 8-inch and 220 feet of 6-inch ductile iron water line and connection to the existing water lines, installation of 81 water meters, including bypass meters and potable water meters, removal of existing fire hydrants and installation of 17 new fire hydrants, installation of 36 new potable water services, abandonment of existing services and installation of one fire service.

Lake Avenue Water Main Replacement

CITY OF PASADENA | PASADENA, CA

Construction Inspector. Mr. Ledyard provided construction inspection services on this $1.5M water improvement project. The scope of work included the installation of approximately 1 mile of 8-inch diameter water main line; installation of all valves, hydrants and appurtenances; reconnection with existing adjacent mains; and reconnection/reconstruction of existing water services.

Forest Avenue Water Main Installation

CITY OF PASADENA | PASADENA, CA

Construction Inspector. Mr. Ledyard provided inspection services during the replacement of an aging water main along Forest Avenue. The project affected a 3,641-foot stretch of road from Del Monte Street to Lincoln Avenue. Traffic lanes were temporarily closed during construction, but at least one lane remained open in each direction for through traffic. Pasadena Water and Power also worked to place digital reader board signage near the construction areas for commuters to consider alternative routes.

CONTACT INFO
jinan.mohammed@nv5.com

EXPERIENCE
13 years

EDUCATION
B.S. Chemical Engineering (Specialized in Petroleum and Gas Refinery)

LICENSES/CERTIFICATES
ACI Concrete Field Testing Technician Grade1

CPN training course on radiation safety and use of nuclear gauge

Liquid Boot system methane mitigation installation inspector

CEE Colombia Engineering Executive Engineering Construction Project Management Certification

CSWO Construction Storm Water Operator Certification No. 24568

In the process of gaining ICC certification for Reinforced Concrete, Pre-stressed concrete, and soils

In the process of gaining the CCM Certified Construction Manager Certification

OSHA 10-hour, MSHA

HAZWOPER 40-Hour training

JINAN MOHAMMED

Construction Inspector

Ms. Mohammed is an adaptable construction professional with 13 years of experience and a proven knowledge of executive support, construction management and inspection, staff training and development, and workflow prioritization. She has experience with a wide range of public works projects and previously managed a material testing laboratory.

Project Experience

Diversion Sewer Pipes to Abandon Fox Hills Pump Station

CITY OF CULVER CITY | CULVER CITY, CA

Construction Inspector. Ms. Mohammed provided construction inspection services for the Diversion Sewer Pipes to Abandon Fox Hills Pump Station project. The project constructed 1,230 LF of 18-inch diversion sewer mains from Fox Hills pump station to Bankfield pump station. The project included constructing 18-inch FRPM (Fiberglass-reinforced pipe) in a 36-inch RCP casing by microtunneling (1,223 LF) at an average depth of 28 feet to 30 feet; constructing new manholes; pavement restoration of all existing improvements; 18-inch force main tie-in near City of Los Angeles manhole and associated temporary bypass system; 1,600 LF of abandonment of portions of the existing dual force 12-inch and 18-inch mains; 1,230 LF of CCTV inspection; and demolition of Fox Hills pump station and the Overland pump station.

Pearl Avenue Sewer Replacement

CITY OF COMPTON | COMPTON, CA

Construction Inspector. Ms. Mohammed provided field engineering services for the placement of flow metering devices within the existing sewer system on the City's Pearl Avenue Sewer Replacement project. This existing sewerline includes an additional reach of 400 LF of Pearl Avenue Sewer additions between Rosecrans Avenue and East Kay Street. The City's sanitary sewer system has experienced prolonged structural damage and capacity deficiencies for years, and this project replaces aging pipes that have impacted the carrying capacity of the aging sewer infrastructure system. Flow metering devices are assisting NV5 with the capacity to develop a preliminary hydraulic model of the sewer main in this limited area, in order to determine if certain reaches can be lined in place, or must be replaced in place due to the need to upsize the existing pipelines.

Drilling & Equipping of New Water Wells NLB 13 & 14

LONG BEACH UTILITIES DEPARTMENT | LONG BEACH, CA

Construction Inspector. Ms. Mohammed provided inspection services for the drilling and equipping of two separate potable water supply wells, Wells North Long Beach 13 & 14, with a design capacity of 2,500 gallons per minute. Located within a City Park, the project requires coordination with residents and management of unhoused individuals. Final well design includes two separate wells housed within a CMU building, with a submersible turbine pump and motor, electrical and SCADA equipment, above and below grade piping, valving and appurtenances, electrical, instrumentation and control, connection to existing water distribution system, testing and disinfection, and site restoration.

CONTACT INFO
duane.neyens@nv5.com

EXPERIENCE
30 years

EDUCATION
B.S. Organizational Management

A.S. Public Works Management

LICENSES/CERTIFICATES
Program Certificate — Public Works Management, Palomar College with MSA and APWA

Program Certificate — Construction Inspection Technology, San Diego State University

Program Certificate — Public Administration Supervisor, (San Diego) North County Supervisors' Academy

Certified Inspector of Sediment & Erosion Control (CISEC)

QSP Trained

Concrete Testing Technician (ACI)

Reinforced Concrete Special Inspector (ICC)

Structural Masonry Special Inspector (ICC)

OSHA 30-Hour

DUANE NEYENS

Construction Inspector

Mr. Neyens has more than 30 years of experience in the construction industry, including experience as a construction inspector, engineering inspections supervisor, and city construction manager having responsibility for both public works and private development projects. Mr. Neyens has worked as a consultant inspector on public works projects for the County of San Diego and in residential development as a project superintendent for Western National Contractors. He has a solid reputation for his focus on detail, his organizational skills, and an orientation toward successful project outcomes.

Project Experience

Second Street Sewer Improvements
CITY OF ENCINITAS | ENCINITAS, CA
Construction Inspector. This $1.6M sewer improvement project involved the replacement of a sewer line between Second and Third streets from J Street to north of C Street (microtunneling and boring at depth of 20 feet), and PVC pipe (deep trench at depth up to 15 feet).

Manchester Sewage Pump Station
CITY OF ENCINITAS | ENCINITAS, CA
Construction Inspector. This $4M project constructed a sewage pump station adjacent to I-5 and connecting to the San Elijo Treatment Plant (microtunneling at depth of 20 feet).

Olivenhain Dual Sewer Force Replacement
CITY OF ENCINITAS | ENCINITAS, CA
Construction Inspector. This $4.35M project consisted of replacing the Olivenhain Sewer Force Main and a portion of the Coast Highway 101 sewer force main.

Storm Drain and Infrastructure
CITY OF OCEANSIDE | OCEANSIDE, CA
Resident Construction Inspector. This $2M project consisted of installing a new RCP in the downtown core area of the city as well as undergrounding all utilities and removing and replacing the roadways.

Raceway Sewage Pump Station
CITY OF VISTA | VISTA, CA
Construction Manager/Chief Engineering Inspector. This $2.5M project constructed a replacement sewage pump station in the southeast industrial area of the city.

Roymar Sewage Pump Station
CITY OF OCEANSIDE | OCEANSIDE, CA
Construction Manager/Construction Inspector. This $1.5M project constructed a sewage pump station in the airport industrial area of the city.

CONTACT INFO
salvador.sanchez
@nv5.com

EXPERIENCE
30 years

LICENSES/CERTIFICATES
Water Utilities Science Certificate

Metrolink Railroad Safety Training for Non-Roadway Workers (SCRRA), No. M9001503

Metrolink Railroad Safety Contractor Safety Trained, No. 26481E22

Former CA Water Distribution Operator, D5 No. 08546

Former CA Water Treatment Operator, T4 No. 16793

SALVADOR SANCHEZ

Construction Inspector/Special Inspector (Electrical)

Mr. Sanchez is adept at managing and delivering a variety of public works construction projects. His skills in the development of project control procedures and methodologies for cost and schedule control have been implemented on several large-scale projects. Mr. Sanchez has accrued more than 30 years of public works experience, demonstrating his expertise in a range of responsibilities, including six years with the City of Riverside, nine years with the City of Pico Rivera and 14 years with the City of Glendale Water Department.

Project Experience

On-Call Construction Management and Inspection Services

LAS VIRGENES MUNICIPAL WATER DISTRICT | CALABASAS, CA

Construction Inspector. Mr. Sanchez provides as-needed Construction Management and Inspection Services to the District, including construction inspection and special inspection services. NV5 has completed many projects with LVMWD, including the Deer Lake Project for a 1-MG tank replacement, including electrical inspection, soils compaction and concrete testing, as well as electrical inspection services for the Stationary Emergency Generators for the Potable Water Pump Stations Project with 200 KW and 600 KW generators installed at four sites.

Rural Ridge Circle and Wilshire Avenue Water Main Replacement

CITY OF ANAHEIM | ANAHEIM, CA

Construction Inspector. Mr. Sanchez provided construction inspection services for this water main replacement and street improvements project. The work consisted of two water main improvement areas: the Rural Ridge area for 4,230 LF and the Wilshire-Pearl area for 2,750 LF of 8-inch to 15-inch potable water main, tie-ins to the existing potable water system, 142 1- and 2-inch water services and meters, existing main abandonment, and final street restoration. NV5 provided full Construction Management, Resident Engineering, and Inspection Services for this project, including coordination with the City, shop drawing and RFI review, change order analysis, and scheduling management.

La Palma Avenue and Tustin Avenue Water Main Replacement at OCTA Railway Crossing

CITY OF ANAHEIM | ANAHEIM, CA

Construction Inspector. Mr. Sanchez provided Construction Inspection Services for the City's La Palma Avenue and Tustin Avenue Water Main Replacement at OCTA Railway Crossing project. Metrolink with the Orange County Transportation Authority expanded the Anaheim Canyon Metrolink Station, which included the addition of a train track crossing at both La Palma Avenue and Tustin Avenue. The water main replacement project involved bore-and-jack installation of two new water mains underneath the OCTA railroad track in La Palma Avenue and Tustin Avenue, followed by the abandonment of the existing water mains that were now too shallow and not adequately reinforced to carry the load underneath the proposed train track. The project included close coordination with the City, OCTA, Metrolink, Southern California Regional Rail Authority (SCRRA), among other agencies.

CONTACT INFO
shane.schmidt@nv5.com

EXPERIENCE
25 years

LICENSES/CERTIFICATES
ICC Reinforced Concrete Inspector

Nuclear Gauge Radiation Safety

Radiation Safety Officer

ACI Field Testing Technician Grade 1

ACI Strength Testing Technician

Caltrans Testing Technician

ADOT Testing Technician

HAZWOPER 40 Hour

OSHA 30 Hour

SHANE SCHMIDT

Construction Inspector

Mr. Schmidt is a seasoned construction inspection professional with over 25 years of comprehensive experience in field inspection, quality control, and special inspection services across a wide range of public and private sector projects. His expertise spans stormwater and wastewater infrastructure, pool construction, structural concrete, soils and materials testing, and compliance with local, state, and federal building codes. He has worked with municipalities, engineering firms, and regulatory agencies, consistently ensuring that construction practices meet standards. His background includes specialized roles such as Radiation Safety Officer and supervision of complex testing operations for DSA schools, OSHPD hospitals, and utility infrastructure projects.

Project Experience

Indian Canyon Drive Sewer Project

CITY OF PALM SPRINGS | PALM SPRINGS, CA

Construction Inspector. Mr. Schmidt is providing construction inspection services for the Indian Canyon Drive Sewer Project. NV5 is providing construction management and inspection services for the project, which will install 8,875 feet of 10-inch PVC sewer pipeline on North Indian Canyon Drive. Twenty-four manholes will be constructed along the route. Microtunneling will be used for 1,200 feet, and the remaining 7,675 feet will be installed via open-cut trenching. Installation involves excavation, pipe laying, backfilling, surface restoration, and manhole construction using precast or cast-in-place structures.

Septic-to-Sewer Project, Phase II

HI-DESERT WATER DISTRICT | YUCCA VALLEY, CA

Construction Inspector. NV5 is serving as the Owner's Representative and providing construction support services for Phase II of the District's Septic-to-Sewer project in Yucca Valley. Identified by the Regional Water Quality Control Board as a priority area, the Town is transitioning from septic systems to a centralized wastewater system. Following Phase I, which established the initial collection and treatment infrastructure, Phase II will expand the system to serve approximately 1,900 parcels with 170,000 feet of gravity pipelines. The project, with an estimated construction cost over $64M, is expected to be completed by the end of 2025.

On-Call Inspection Services

CITY OF SEAL BEACH | SEAL BEACH, CA

Construction Inspector. Mr. Schmidt provides on-call inspection for CIP and developer projects for the City. Safety is a major concern for the City and in addition to our regular daytime inspectors, our inspectors have been called for night and weekend work to ensure traffic control is properly set up for items like Caltrans right-of way. Our inspectors provide inspections to document and determine the acceptability of the construction work in accordance with the City's approved plans, specifications, and standard details. Our NV5 inspectors report directly to the City's Project Manager.

CONTACT INFO
daniel.warren@nv5.com

EXPERIENCE
30 years

LICENSES
Water Distribution Operator Grade D3 (CA), No. 8020

Water Treatment Operator Grade 2 (CA), No. 18940

Recycled Water Users Site Supervisor Training Certificate (County Sanitation Districts of Los Angeles County)

Excavation Safety & Competent Person Training Program Certificate (National Utility Contractors Association)

Residential Water Survey Training Certificate

Trench Shoring Certified

Underground Utility Line Locator Certificate

OSHA 30-Hour Outreach Training Program Certificate

DANIEL WARREN

Construction Inspector/Special Inspector (Electrical)

Mr. Warren is a construction inspector with more than 30 years of experience in public works, including the positions Construction Inspector for the City of La Habra Heights and Grade III Water Distribution Operator and Grade II Water Treatment Operator for the Rowland Water District. Mr. Warren is extremely knowledgeable about the need for the Contractor's conformance to the approved plans and specifications, adherence to field quality control, as well as what the various heavy construction industry standards and construction principles are for water and wastewater systems. Mr. Warren has significant knowledge of all aspects of public utilities and provides expert quality control for all aspects of potable water, sewer, and recycled water works throughout his execution of his duties as an Inspector.

Project Experience

On-Call Construction Management and Inspection Services

LAS VIRGENES MUNICIPAL WATER DISTRICT | CALABASAS, CA

Construction Inspector. Mr. Warren provides as-needed Construction Management and Inspection Services to the District, including construction inspection and special inspection services. NV5 has completed many projects with LVMWD, including the Deer Lake Project for a 1-MG tank replacement, including electrical inspection, soils compaction and concrete testing, as well as electrical inspection services for the Stationary Emergency Generators for the Potable Water Pump Stations Project with 200 KW and 600 KW generators installed at four sites.

Rural Ridge Circle and Wilshire Avenue Water Main Replacement and Street Improvements

CITY OF ANAHEIM | ANAHEIM, CA

Construction Inspector. Mr. Warren provided construction inspection services for this water main replacement and street improvements project. The work consisted of two water main improvement areas: the Rural Ridge area for 4,230 LF and the Wilshire-Pearl area for 2,750 LF of 8-inch to 15-inch potable water main, tie-ins to the existing potable water system, 142 1- and 2-inch water services and meters, existing main abandonment, and final street restoration. NV5 provided full Construction Management, Resident Engineering, and Inspection Services for this project.

Arantine Hills Sewer and Water Infrastructure Projects

CITY OF CORONA | CORONA, CA

Construction Inspector. Mr. Warren provided construction inspection services for the $14.7M three-phase Arantine Hills sewer, water and street improvement projects to provide the necessary infrastructure for the Arantine Hills Development Project. The project included the construction of a new ADA-compliant buried cast-in-place sewer lift station with above-grade controls. This was connected to a second project to construct the new sewer force main with fused HDPE pipe via conventional open trench and trenchless jack-and-bore sewer construction along arterial streets and Caltrans ROW, forming 4 miles of pipeline. A third project managed simultaneously was the construction of the California Avenue Sewer at a depth of 25 feet below grade. All three projects were to be completed together for the final and finished sewer lift station to function. Construction of these improvements resulted in the need for extensive street and sidewalk improvements.

CONTACT INFO
ahmad.ahmadzai
@nv5.com

EXPERIENCE
12 years

EDUCATION
B.Sc. Civil Engineering

REGISTRATIONS
Qualified Compliance Inspector of Stormwater

Portable Nuclear Gauge Safety & U.S. D.O.T Hazmat Cert

ACI #: 01629111

ACI Concrete Field-Testing Technician – Grade I

ACI Concrete Strength Testing Technician

HAZWOPER 40-HR

AHMAD IDREES AHMADZAI

Special Inspector (Paving)/Materials Testing

Mr. Ahmadzai is a dedicated and driven professional with over a decade of experience in overseeing project management, supervision, and materials testing both in the field and laboratory settings. With a comprehensive understanding of project manager/ supervisor roles and responsibilities, he possess a blend of administrative and engineering expertise. Mr. Ahmadzai's background enables him to effectively support project teams and upper management in directing and monitoring projects of various scales within specified timelines. As a collaborative team member, his reputation includes reliability, responsibility, and strong communication skills. Mr. Ahmadzai's extensive experience includes coordinating and conducting materials testing for projects ranging from large-scale infrastructure developments to smaller initiatives. Duties encompass field grading observation, compaction testing, material analysis, drilling oversight, and pile installation and testing

Project Experience

Las Virgenes Municipal Water District–Calleguas Municipal Water District Interconnection

CALLEGUAS MUNICIPAL WATER DISTRICT | AGOURA HILLS, CA

Materials Testing. The project consisted of constructing a new interconnection pipeline between Las Virgenes Municipal Water District and Calleguas Municipal Water District to improve regional water supply reliability and emergency redundancy. Mr. Ahmadzai performed compaction testing for trench backfill, aggregate base testing, concrete testing for vaults and appurtenant structures, and reinforced steel inspections. His work ensured compliance with district standards and supported the successful installation of critical water transmission infrastructure.

Saticoy Wastewater Treatment Plant Improvements

MNS ENGINEERING | SATICOY, CA

Special Inspection/Materials Testing. This wastewater treatment plant project included facility upgrades and structural improvements to enhance treatment capacity and operational efficiency. Mr. Ahmadzai conducted field density testing, structural concrete sampling and testing, reinforcing steel inspection, and anchor bolt verification. His quality assurance efforts supported long-term durability and regulatory compliance of the upgraded facility.

SCVWA Dickason Drive Water Line Project

FILIPPIN ENGINEERING, INC. | SANTA CLARA VALLEY, CA

Special Inspection/Materials Testing. This project included installation of new water pipeline infrastructure. Mr. Ahmadzai performed trench backfill compaction testing, concrete sampling for thrust blocks and appurtenant structures, and aggregate base testing to ensure agency compliance..

FY23 Watermain Replacement

FLOWERS AND ASSOCIATES | SANTA BARBARA, CA

Special Inspection/Materials Testing. This capital improvement project replaced aging water mains to improve reliability and reduce leakage. Mr. Ahmadzai performed field density testing of trench backfill, asphalt testing during roadway restoration, and concrete testing for utility structures to ensure compliance with City standards.

CONTACT INFO
chris.fernandez@nv5.com

EXPERIENCE
16 years

LICENSES/CERTIFICATES
AWS CWI

ICC S1 Structural Steel & Bolting

ICC S2 Structural Welding Inspector

ICC 86M Spray Applied Fire Proofing

ADCE/ANSI Commercial Diver

ASME SMAW 6G

ASME GTAW 6G

LADBS MANUAL/SEMI-AUTO

AWS D1.5 FCAW 3G, 4G

AWS D1.8 FCAW 1G, 4G

CHRIS FERNANDEZ

Special Inspector (Welding)/Materials Testing

Mr. Fernandez is a Certified Welding Inspector (CWI) with 16 years of professional experience in construction, welding, and inspection services. He possesses a deep knowledge of welding practices and codes, including AWS, ASME, and AISC, and is highly skilled at reading and interpreting plans to ensure projects meet quality and safety standards. Chris has extensive experience performing field inspections, creating welding procedures, and communicating quality requirements to project teams. He has also worked as a welding instructor, providing hands-on training and mentorship in shop safety, fabrication techniques, and welder qualification testing. His background spans a variety of environments, including construction sites, fabrication shops, and marine operations, highlighting his versatility and reliability. Chris holds numerous certifications, including AWS CWI, ICC Structural Welding Inspector, ASME SMAW and GTAW 6G, and ADCE/ANSI Commercial Diver, demonstrating his commitment to technical excellence and professional growth.

Project Experience

Oxnard Wastewater Treatment Plant 2021 Improvement

KENNEDY JENKS CONSULTANTS | OXNARD, CA

Special Inspection. This project involved upgrades to treatment plant structures and process equipment, including structural steel platforms, piping supports, and equipment anchorage. Mr. Fernandez performed welding inspections for structural steel framing, pipe supports, and miscellaneous metals. He ensured field welds conformed to AWS D1.1 requirements and project specifications within an active treatment facility environment.

Santa Clara River Levee Improvements

COUNTY OF VENTURA | VENTURA COUNTY, CA

Special Inspection. This project involving levee improvements along the Santa Clara River included structural steel components, reinforcement modifications, and infrastructure upgrades to enhance flood protection. Mr. Fernandez provided certified welding inspection services, including structural steel welding observation, verification of welder qualifications, review of Welding Procedure Specifications (WPS), visual inspection of field welds, and documentation of compliance with AWS D1.1 standards.

San Ricardo Well Tank Inspection

GOLETA WATER DISTRICT | GOLETA, CA

Special Inspection. This project involved inspection and maintenance of a municipal water storage tank including evaluation of welded steel components. Mr. Fernandez conducted visual inspection of welded tank seams and structural attachments, documented weld conditions, and verified repair welding met applicable standards for water infrastructure facilities.

CONTACT INFO
matthew.habberfield@nv5.com

EXPERIENCE
24 years

LICENSES/CERTIFICATES
DSA Masonry
No. 5281

ICC Fireproofing
No. 8029830

ICC Reinforced Concrete
No. 8029830

ICC Structural Steel & Bolting
No. 8029830

ICC Prestressed Concrete
No. 8029830

ICC Structural Masonry
No. 8029830

ACI Concrete Field Testing Technician Grade 1
No. 01192407

Nuclear Density Gauge Certified

MATTHEW HABBERFIELD

Special Inspector (Concrete & Structural)

Mr. Habberfield has been in the construction industry for over 23 years and has provided Public Works inspection and special inspections for over 12 years. Inspections performed have ranged from Public Works Infrastructure, DSA school house, HCAI hospital, commercial, industrial and private residential inspection. Mr. Habberfield is a multi-card inspector currently holding 8 certifications. He will collaborate closely with the project IOR and QA manager and will oversee and coordinate NV5's field inspection and testing program.

Project Experience

Waterline Replacement
CITY OF VENTURA | VENTURA, CA
Special Inspector. Mr. Habberfield performed inspection of reinforced concrete thrust blocks, vault structures, and structural appurtenances. Verified reinforcing steel installation and concrete placement for municipal waterline improvements.

D210 Project – 4180 Guardian Street
CALLEGUAS MUNICIPAL WATER DISTRICT | THOUSAND OAKS, CA
Special Inspector. Mr. Habberfield provided inspection of reinforced concrete foundations, structural slabs, and masonry site structures for water infrastructure improvements. Verified reinforcing steel placement, anchor bolt layout, embedments, and concrete placement in accordance with approved plans and specifications.

Las Virgenes Municipal Water District–Calleguas Municipal Water District Interconnection
CALLEGUAS MUNICIPAL WATER DISTRICT | WESTLAKE VILLAGE/THOUSAND OAKS AREA, CA
Special Inspector. Mr. Habberfield performed structural inspection of vaults, reinforced concrete structures, and pipeline appurtenances associated with intertie improvements. Oversaw rebar placement, formwork, concrete pours, and masonry construction for utility structures.

Lake Sherwood Pump Station
CALLEGUAS MUNICIPAL WATER DISTRICT | LAKE SHERWOOD, CA
Special Inspector. Mr. Habberfield conducted inspection of structural concrete foundations, equipment pads, and CMU block walls. Verified reinforcing steel, dowels, anchor systems, and concrete placement for pump station structural components

Fitzgerald Pump Station
H2O URBAN SOLUTIONS | VENTURA COUNTY, CA
Special Inspector. Mr. Habberfield performed inspection of reinforced concrete foundations, slabs, and masonry block structures. Confirmed compliance with structural plans and specifications.

OSR Feeder, LFP & Miscellaneous Valves
CALLEGUAS MUNICIPAL WATER DISTRICT | VENTURA COUNTY, CA
Special Inspector. Mr. Habberfield inspected reinforced concrete valve vaults, thrust blocks, and structural slabs. Confirmed proper reinforcing steel placement, embedments, and structural concrete installation for underground utility Improvements.

CONTACT INFO
james.iverson@nv5.com

EXPERIENCE
30+ years

EDUCATION
A.S. Construction Technology for Construction

LICENSES/CERTIFICATES
Portable Nuclear Gauge operator

Portable Nuclear Gauge Safety & US DOT Hazmat

Los Angeles City Deputy Grading Inspector

ACI Field Testing Technician, Grade I

ICC Reinforced Concrete

ICC Soils

City of Simi Valley ICC Concrete/Grading Inspector

40-HR 10-HR OSHA (Numerous safety courses)

Metrolink & NCTD Railroad Worker Cert

U.S. Government Anti-Terrorist Training Class

JAMES "JIM" IVERSON

Special Inspector (Concrete)/Materials Testing

Mr. Iverson has over 30 years of experience as a soil technician and special inspector. His extensive experience includes observation and monitoring of large-scale hillside grading projects, public works infrastructure, and new developments. Mr. Iverson is a multi-certified inspector of soils and reinforced concrete. He has worked on projects such as the SB County Bella Vista Low Water Crossing, City of Burbank Valley Pumping Station Upgrade, Santa Monica Debris Basin Improvement, City of Santa Barbara FY21B Watermain Replacement, Oxnard WWTP 2021 Improvement, and City of Santa Barbara Desal Conveyance Main.

Project Experience

On-Call Contract Construction Management & Inspection Services

LAS VIRGENES MUNICIPAL WATER DISTRICT | CALABASAS, CA

Construction Management/Inspection/Soils Testing. Mr. Iverson provided construction management, inspection, and soil testing services in support of the Las Virgenes Municipal Water District's on call contract. His responsibilities included coordinating field inspection activities, overseeing construction progress for compliance with project plans and specifications, and performing soil testing to support quality assurance and project documentation. Mr. Iverson worked closely with District staff, contractors, and project stakeholders to support timely issue resolution and successful project delivery

Marion Walker Pressure Improvements

CASITAS MUNICIPAL WATER DISTRICT | OAK VIEW, CA

Materials Testing/Special Inspection. Mr. Iverson provided materials testing and inspection services for the Casitas Municipal Water District's Marion Walker Pressure Improvement project. This role showcased his expertise in ensuring the quality and compliance of construction materials for critical infrastructure projects.

Various Improvement Projects

GOLETA WATER DISTRICT | GOLETA, CA

Materials Testing/Special Inspection. Mr. Iverson provided materials testing and and soil density testing services for several Goleta Water District projects. His expertise ensured the quality and compliance of construction materials, contributing to the successful completion of the District's Paving Project and Water Relocation Phase II project.

Various Projects

CALLEGUAS MUNICIPAL WATER DISTRICT | THOUSAND OAKS, CA

Materials Testing/Special Inspection. Mr. Iverson provided materials testing and inspection services for the Calleguas Municipal Water District on various projects, including:

- NPV Desalter Development – Over-Excavation
- CCNB Backfill Replacement
- LVMWD-CMWD Interconnection
- OSR Feeder, LPF, and Miscellaneous Valves
- Lake Sherwood Pump Station
- Plant Sink Hole

CONTACT INFO
scott.moors@nv5.com

EXPERIENCE
35 years

EDUCATION
B.S. Geological Sciences

LICENSES/CERTIFICATES
Professional Geologist
No. 6100

Certified Engineering
Geologist No. 1901

Certified Hydrogeologist
No. 607

AFFILIATIONS
American Concrete Institute

American Society of Civil Engineers

Association of Environmental & Engineering Geologists

American Public Works Association

California Asphalt Pavement Association

California Council of Testing and Inspection Agencies

D. SCOTT MOORS, PG, CEG, CHG

Geotechnical Engineer/Special Inspector/Materials Testing

Mr. Moors is an experienced, multidisciplinary business and project manager with notable expertise in geotechnical engineering, construction quality assurance, materials testing, seismic hazard evaluation, geotechnical review, landslide studies, groundwater studies, pavement evaluation, and environmental remediation. He has 35 years of technical expertise in municipal consulting, project management and engineering and environmental geology and has overseen construction inspection and materials testing of multistory buildings, over 18 highway bridges, more than 1.5 M tons of asphalt pavements and has presented short courses on Pavement Maintenance and Rehabilitation and Public Works Construction Inspection for APWA.

Project Experience

On-Call Construction Management and Inspection Services

LAS VIRGENES MUNICIPAL WATER DISTRICT | CALABASAS, CA

Special Inspector/Materials Testing. Mr. Moors provides as-needed Construction Management and Inspection Services to the District, including construction inspection and special inspection services. NV5 has completed many projects with LVMWD, including the Deer Lake Project for a 1-MG tank replacement, including electrical inspection, soils compaction and concrete testing.

Morro Bay Wastewater Treatment Plant Concrete Evaluation

MORRO BAY PUBLIC WORKS | MORRO BAY, CA

Project Principal/Project Manager. Mr. Moors served as Project Principal/Project Manager for non-destructive field testing and sampling concrete from various elements of the plant. Field testing included Ground Penetrating Radar, Schmidt Hammer testing, and chipping hammer survey. Lab testing included compression testing and petrographic examination per ASTM C856.

Sycamore Canyon Dam Modification Geotechnical Evaluation

COUNTY OF VENTURA, PUBLIC WORKS | SIMI VALLEY, CA

Project Manager/Principal Geologist. Mr. Moors served as Project Manager/Principal Geologist for geotechnical evaluation of proposed spillway modifications for the earth-filled dam. Also evaluated ASR-affected concrete through pertrographic examination.

Tapia Waste Water Treatment Plant Concrete Evaluation

LAS VIRGENES MUNICIPAL WATER DISTRICT

Project Principal / Project Manager for nondestructive field testing and sampling concrete from Digester No. 1. Field testing included Ground Penetrating Radar, Schmidt Hammer testing, and chipping hammer survey. Lab testing included compression testing and petrographic examination per ASTM C856.

Municipal Geotechnical Reviewer

MUNICIPAL REVIEW | 19+ CITIES AND COUNTIES IN SOUTHERN CALIFORNIA.

Principal Geologist/Geotechnical Reviewer. Mr. Moors has served as the Principal Geologist/Geotechnical Reviewer for the Cities of Malibu, Ventura, Agoura Hills, Calabasas, Camarillo, Hidden Hills, Moorpark, Oxnard, Palmdale, Palos Verdes Estates, Santa Monica, Santa Barbara, Santa Clarita, Santa Paula, Simi Valley, Thousand Oaks, West Hollywood,; and for Ventura County and Santa Barbara County. He has authored Geotechnical Review Guidelines for multiple cities.

CONTACT INFO
ed.sullivan@nv5.com

EXPERIENCE
35 years

EDUCATION
A.A. Geology

AFFILIATIONS
American Public Works Association

Coast Geological Society

ED SULLIVAN

Special Inspector/Materials Testing

With over 35 years of experience in geotechnical and materials inspection and testing, Mr. Sullivan brings a wealth of expertise to his role as Construction Services Manager. Throughout his career, he has demonstrated a strong commitment to ensuring the integrity and safety of construction projects across a diverse range of areas, including large grading operations, soldier pile walls, pipeline construction, and roadway and bridge construction. Mr. Sullivan's extensive experience also encompasses overseeing drilled pier foundations, reinforced earth walls, and firewater/process piping construction, as well as conducting hydro-testing and blast monitoring. His proven track record includes providing materials inspection and testing services to esteemed clients such as the Calleguas Municipal Water District, showcasing his dedication to delivering quality and reliability in every project he undertakes.

Project Experience

On-Call Construction Management and Inspection Services

LAS VIRGENES MUNICIPAL WATER DISTRICT | CALABASAS, CA

Construction Inspection/Materials Testing. Mr. Sullivan provides as-needed Construction Management and Inspection Services to the District, including construction inspection and special inspection services. NV5 has completed many projects with LVMWD, including the Deer Lake Project for a 1-MG tank replacement, including electrical inspection, soils compaction and concrete testing.

Salinity Management Pipeline (SMP)

CALLEGUAS MUNICIPAL WATER DISTRICT | THOUSAND OAKS, CA

Materials Testing. Mr. Sullivan provided materials testing services for the pipeline backfill and structures, and geotechnical input regarding HDD crossings for numerous phases of the SMP project. This 7-mile long, 60-inch to 30-inch diameter pipeline extends from near Camarillo to an ocean outfall offshore from Oxnard. The purpose of the pipeline is to convey poor-quality surface and groundwater (primarily high total dissolved solids and chlorides) from the Calleguas Creek drainage to the Pacific Ocean. Mr. Sullivan oversaw the technicians who performed materials testing services.

Pipeline Construction (Los Angeles Avenue)

CALLEGUAS MUNICIPAL WATER DISTRICT | MOORPARK, CA

Construction Inspection/Materials Testing. Mr. Sullivan provided construction inspection, consultation, and materials testing for the construction of a 3-mile section of a 72-inch water pipeline for the Las Posas Basin Aquifer Storage and Recovery (ASR) project including the Arroyo Simi Tunnel and four jack and bore operations.

Pipeline Construction

CALLEGUAS MUNICIPAL WATER DISTRICT | EAST VENTURA COUNTY, CA

Construction Inspection/Materials Testing. Mr. Sullivan provided construction inspection/consultation and materials testing for approximately 30 miles of pipeline within the Calleguas MWD service area. Project experience includes Grandsen Pump Station Phase 1 and Phase 2, Wellfield Emergency Generators project, Simi Valley Recycled Water System project, Las Posas Basin Aquifer Storage and Recovery (ASR) project, Lake Bard Plant Expansion and Oxygenation project, Regional Salinity Control project, several concrete and steel reservoirs, and various operation improvement projects.

CONTACT INFO
jesse.wooten@nv5.com

EXPERIENCE
35 years

LICENSES/CERTIFICATES
Caltrans Test Methods: 216, 231, 125

Radioactive Materials Operator (Nuclear Gauge)

JESSE WOOTEN

Special Inspector (Paving)/Materials Testing

Mr. Wooten has 35 years of experience in construction materials testing and inspection and geotechnical testing. He has fulfilled roles as Field Operations Manager, Radiation Safety Officer, and Senior Field Technician on a variety of grading and special inspection/materials testing projects for roadways and commercial and residential development. Mr. Wooten's responsibilities have included supervising field technicians; staff training; jobsite safety; inspection and testing related to asphalt, concrete, and soil, including grading observation, density tests on compacted fill, and retaining wall backfill observation; shoring installation monitoring; laboratory testing; and verification of constructions methods, equipment, and materials per project specifications.

Project Experience

Calleguas Grandsen Pump Station No. 2
VENTURA COUNTY, CA

Inspection/Soils Testing. Mr. Wooten provided inspection and testing of soils; grading observation; density tests on compacted fill in pipe trenches; verification of constructions methods, equipment, and materials per project specifications; monitoring of shoring installation; sampling concrete; and observation and testing for placement of aggregates and asphalt.

Phelps Road Sanitary Sewer Line
CITY OF GOLETA | GOLETA, CA

Inspection/Soils Testing. Mr. Wooten provided inspection and testing of soils; backfill observation; density tests on compacted fill; and verified constructions methods, equipment, and materials per project specifications for the 30-inch sanitary sewer upgrade system.

Calleguas 593 SMP 1A Emergency Repair
VENTURA COUNTY, CA

Mr. Wooten observed trenching, shoring installation, and backfill for the installation of a ruptured brine line pipe repair. Responsibilities also included verifying spring line flow and subgrade stabilization, inspection and testing of soils, grading observation, density tests on compacted fill, and verifying cement slurry backfill

North Pleasant Valley Water Desalter
CITY OF CAMARILLO | CAMARILLO, CA

Inspection/Soils Testing. Mr. Wooten provided inspection and testing of soils; grading observation; density tests on compacted fill; observations and verification of building and structure over excavation and backfill; sampling and casting of concrete cylinders for laboratory testing; and verification of constructions methods, equipment, and materials per project specifications.

Mason Road Sewer Line
GOLETA SANITARY DISTRICT | SANTA BARBARA COUNTY, CA

Observed trenching, shoring installation, and backfill for the installation of a 42-inch Hobas pipe force sewer main. Responsibilities also included verifying spring line flow and subgrade stabilization.

CONTACT INFO
rafael.gutierrez@nv5.com

EXPERIENCE
20 years

EDUCATION
A.A. Computer-aided Drafting & Design

RAFAEL GUTIERREZ

Construction Administrator

Mr. Gutierrez has more than 20 years of experience as a design engineer and construction administrator for various infrastructure and capital improvement projects, including water/wastewater and transportation projects. His qualifications include the ability to review and prepare plans, specifications and cost estimates; surveying; and establishing, maintaining and fostering positive working relationships with agency staff. Mr. Gutierrez is proficient in CAD and other design software. He also has extensive people skills and works well with executives, vendors, surveyors, project engineers, architects and drafters in a variety of work environments.

Project Experience

Rural Ridge Circle and Wilshire Avenue Water Main Replacement

CITY OF ANAHEIM | ANAHEIM, CA

Inspector/CADD. Mr. Gutierrez provided inspection and drafting services during the construction of this water main replacement project. The work to be undertaken consists of two water main improvement areas: the Rural Ridge area and Wilshire-Pearl area. The Rural Ridge improvement area includes installation of a 12-inch PVC pipe (1,560 LF) on Rural Ridge Drive/E. Rural Ridge Circle from Nohl Ranch Road to Westridge Pump Station, an 8-inch PVC pipe (1,820 LF) on E. Rural Ridge from S. Rural Ridge Drive to E. Willowick Drive, an 8-inch PVC pipe (480 LF) on Santiago Way from E. Rural Ridge Drive to the end of the cul-de-sac, and a 6-inch PVC pipe (370 LF) on Silverado Way to the end of the cul-de-sac. The Wilshire-Pearl improvement area includes installation of 12-inch Ductile-Iron pipe (1,915 LF) on N. Wilshire Avenue from N. Loara Street to N Pearl Street, and 8-inch Ductile-Iron pipe (825 LF) on Pearl Street from N. Wilshire Avenue to N. Dwyer Place.

Diversion Pipeline

CITY OF CULVER CITY | CULVER CITY, CA

CADD/Construction Administration. Mr. Gutierrez provided construction administration services for the construction of diversion sewer pipes to abandon Mesmer and Overland Sewer Pump Stations. The goal of the project was to divert flows from four of the City's sewer pump stations to a new sewage pump station, Bankfield Station, which is another project for which NV5 provided construction management and inspection services during construction.

Graves Reservoir Replacement

CITY OF SOUTH PASADENA | SOUTH PASADENA, CA

Construction Administration. Mr. Gutierrez assisted with construction administration for the demolition and construction of a new 1.2-mg partially buried cast-in-place reservoir sited in a residential neighborhood. An existing well was re-equipped as the source of groundwater for the reservoir. The existing well pump was renovated and a new pumping station was constructed with two 1,400-gpm VFD pumps that pump from the reservoir to the City water system. A new Sodium Hypochlorite Generation System, new pre-treatment with state-of-the-art GAC for PCE and CCl4 removal followed by a new Ion Exchange System for removal of nitrate as NO3, ClO4, and sulfate, were installed. NV5 provided full-service CMS, including Construction Management, Inspection, Lead and Asbestos Demolition Oversight, Public Relations, SRF Loan Reimbursement Management, Biological Monitoring, Geotechnical and Materials Testing for this comprehensive project.

CONTACT INFO
linda.wheeler@nv5.com

EXPERIENCE
35 years

EDUCATION
Community college coursework

LINDA WHEELER

Construction Administrator

Ms. Wheeler has more than 35 years of experience in construction administration and as an administrative assistant. She has provided support for a variety of civil engineering and capital improvement projects, including projects focused on structural design, water/wastewater, utility assessment, utility undergrounding, street improvements, and recreational facility improvements. Her responsibilities have included, but are not limited to, preparing proposals; processing invoices; recording meeting minutes; preparing budgets, payroll, and purchase orders; and supervising clerical staff. Ms. Wheeler is experienced in Microsoft Excel and Word and is proficient with Construction Management Information Systems (CMIS) software.

Project Experience

Diversion Sewer Pipes to Abandon Fox Hills Pump Station

CITY OF CULVER CITY | CULVER CITY, CA

Construction Administration. Ms. Wheeler supported the NV5 team that provided construction management and inspection services for this project, which constructed 1,230 LF of 18-inch diversion sewer mains from Fox Hills pump station to Bankfield pump station. The project included constructing 18-inch FRPM (Fiberglass-reinforced pipe) in a 36-inch RCP casing by microtunneling (1,223 LF) at an average depth of 28 feet to 30 feet; constructing new manholes; pavement restoration of all existing improvements; 18-inch force main tie-in near City of Los Angeles manhole and associated temporary bypass system; 1,600 LF of abandonment of portions of the existing dual force 12-inch and 18-inch mains; 1,230 LF of CCTV inspection; and demolition of Fox Hills pump station and the Overland pump station.

Project/Construction Management and Inspection for FY 2019-20 City Street Improvements

CITY OF SOUTH PASADENA | SOUTH PASADENA, CA

Construction Administration. Ms. Wheeler supports the NV5 team providing construction management and inspection services for street projects involving pavement rehabilitation and replacement of mains, valves, water services, meters, and other appurtenances. The work also includes repair of damaged PCC curb and gutter, sidewalks, and driveways; removal and disposal of existing asphalt roadway sections; cold milling of existing pavement; subgrade preparation and compaction; asphalt concrete pavement; removal and reconstruction of damaged PCC curb and gutter, sidewalk, driveway approaches, and ADA curb ramps; utility adjustments; installation of new water meters, services, valves, and appurtenances; sewer line repairs; traffic signing; thermoplastic striping and pavement markings; and traffic control. T

Second Bridge and Roadway Project

CITY OF LAKE HAVASU CITY | LAKE HAVASU CITY, AZ

Construction Administration. Ms. Wheeler supports the NV5 team providing complete engineering design services for this new bridge and roadway project. This vital infrastructure project will enhance connectivity from the mainland to the island in support of the growing needs of the Lake Havasu City community. Our services include bridge and roadway design, utility design, traffic engineering, geotechnical engineering, surveying, and environmental services. In addition to the design effort, NV5 will also be responsible for managing the Construction Manager at Risk (CMAR) and providing construction support services.

CONTACT INFO
bocasio@pacificresources services.com

EXPERIENCE
25+ years

EDUCATION
M.P.A. Public Affairs

B.S. Urban & Regional Planning

Valley Leadership Institute

BENJAMIN OCASIO

Labor Compliance *(Pacific Resources Services)*

Mr. Ocasio has more than 25 years of years of experience providing prevailing wage monitoring and enforcement services, Project Labor Agreement/Project Stabilization Agreement, workforce and business outreach services, and Disadvantaged Business Enterprises compliance services on numerous large public works projects throughout Southern California. He began his prevailing wage career as a Management Assistant with the City of Los Angeles Office of Contract Compliance. He also received training as a Caltrans Inspector.

Project Experience

Hacienda Road Safety Improvements

CITY OF LA HABRA HEIGHTS | LA HABRA HEIGHTS, CA

Labor Compliance. As a subconsultant to NV5, Pacific Resources Services is providing labor compliance services for the City's Hacienda Road Safety Improvement Project. Our team is providing construction management and inspection; labor compliance and wage monitoring; and materials testing and deputy inspection services for the City's Hacienda Road Safety Improvement Project. The project includes the installation of new traffic signals and ancillary equipment at Hacienda Road and Avocado Crest Road; and the installation of traffic signage and striping. The project is located on Hacienda Road between the south and north city limits. The project includes funding from a state Highway Safety Improvement Program grant.

Wilmington Avenue Safe Streets Pedestrian/Bicycle Improvements

CITY OF COMPTON | COMPTON, CA

Labor Compliance. As a subconsultant to NV5, Pacific Resources Services is providing labor compliance services for the City's Wilmington Avenue Safe Streets Pedestrian/Bicycle Improvements project from Rosecrans Avenue to the southern City boundaries. The work includes pavement rehabilitation, including full-depth AC reconstruction and AC resurfacing; PCC improvements, including ADA-compliant curb ramps, bus pads, and median, sidewalk and driveway improvements; traffic signal modifications; installation of bus shelters and other site furnishings; pedestrian lighting improvements; landscaping and irrigation; and signing & striping.

Bellflower Boulevard Rehabilitation

CITY OF BELLFLOWER | BELLFLOWER, CA

Labor Compliance and Federal Funding. As a subconsultant to NV5, Pacific Resources Services provided labor compliance and federal funding services for the federally funded Bellflower Boulevard Rehabilitation project from Artesia Boulevard to South City Limit. The scope of work included reconstruction and resurfacing of existing asphalt pavement; removal and reconstruction of PCC sidewalks, driveways, curb and gutter, cross-gutters, drain inlets, and ADA curb ramps; landscaping and irrigation; adjustment of utilities to grade; replacement of existing traffic loops; and traffic striping and signage.

Bret Bennett
Inspector



Certifications

NACE International – Certified Coatings Inspector Level 3
Certificate #7437

Certified Linabond Copolymer Inspector

Certified Ameron T-Lock Inspector

Safety Certifications

- Fall Protection
- Heavy Metal Abatement
- H_2S Hazardous Entry
- CPR/First Aid
- Confined Space
- Respiratory Protection

Professional Affiliations

American Water Works Association

SSPC: The Society of Protective Coatings

NACE International

Mr. Bennett has over 15 years of industrial coating inspection experience. Prior to becoming an inspector, he worked as an industrial painter. He has been involved in coatings work on reservoirs, tanks, vessels, bridges, and numerous structures for various utilities, agencies, and owners.

Mr. Bennett's experience as a coating inspector included work with inorganic zincs, epoxies, coal tar enamels, coat-tar cut-back's, vinyls, urethanes, alkyds, acrylics, moisture cure urethanes (MCU), vinyl esters, fusion bonded epoxies (FBE), PVC linings, and numerous other generic types of coatings types that include 100% solids by volume thick film materials. His vast experience includes surface preparation techniques that include powertool cleaning, abrasive blasting, hydroblasting, and acid etching in both shop and field operations on substrates that include steel, concrete, aluminum, masonry, and others. This experience includes operations involving airless, conventional, plural component, and electrostatic spray equipment.

Mr. Bennett has successfully completed numerous corrosion and coatings surveys in various plants and facilities. He also has extensive experience with coating inspection instrumentation including pull-off adhesion testers, ultrasonic gages, moisture meters, holiday detectors, hardness gages, and pH measuring instrumentation. He is intimately familiar with numerous NACE, SSPC, and ASTM standard test practices. A partial listing of various coating and lining projects that he has successfully completed follow:

- Laguna Beach County Water District - 1 water storage tank
- Western Municipal Water District - 2 water storage tanks
- Boeing Corporation - 2 CES water storage tanks
- City of San Clemente, CA - 1 water storage tank
- City of Burbank – 2 water storage tanks
- Purrisima Hills Water District - 1 water storage tank
- Newhall County Water District - 1 water storage tank
- Mission Hills Community Services District - 1 water storage tank
- Southern California Water Company - 2 water storage tanks
- Santa Clarita Water Company - 4 water storage tanks
- City of Long Beach Water Department - 2 water storage tanks
- City of Orange, CA - 3 water storage tanks
- Eastern Municipal Water District - 1 water storage tank
- Los Angeles International Airport - Phase II Lower Terminal
- Unocal Oil Co.- 2 storage tanks
- ConocoPhillips - 4 storage tanks
- City and County of Honolulu – Water TP Upgrade Project
- East Pasadena Water District - 2 water storage tanks
- Los Angeles County Sanitation District - Various Tanks & Structures
- City of Los Angeles - Terminal Island Wastewater Treatment Plant - 2 year assignment providing QA coating inspection for all of the Plant's Coatings work on steel and concrete substrates.

Justin Gorman

Inspector



Mr. Gorman is an industrial coating inspector. He has been intimately involved in numerous coatings projects involving both concrete and steel structures for many utilities, agencies, and owners. This experience primarily includes work on storage tanks, pipelines, and structural steel for the many industries.

Mr. Gorman's experience as a coating inspector includes work with inorganic zincs, epoxies, coal-tar enamels, coat-tar cut-back's, vinyls, urethanes, alkyds, acrylics, vinyl esters, PVC linings, and numerous other generic types of coatings that include 100% solids by volume thick film materials. His experience includes surface preparation techniques that include powertool cleaning, abrasive blasting, hydroblasting, and acid etching in both shop and field operations on substrates that include steel, concrete, aluminum, masonry, and others. This experience includes operations involving airless, conventional, and plural component.

Mr. Gorman also has extensive experience with coating inspection instrumentation including pull-off adhesion testers, ultrasonic gages, moisture meters, holiday detectors, hardness gages, pH measuring instrumentation, volt meter and various reference cells. He is intimately familiar with numerous NACE, SSPC, and ASTM standard test practices. In addition to his experience as a coater, a partial listing of various coating and lining projects that he has worked follow:

- Eastern Municipal Water District - Various Water Storage Tanks Projects
- Poseidon/San Diego County Water Authority – Conveyance Pipeline
- Disneyland – Various Ride Attraction Projects
- Metro Transit Authority – Expo II Station Project
- Caltrans – 405 Widening Project
- San Gabriel Water Company – New Reservoir Coating Project
- MCS Construction – Catalina Island Tank Coating Project
- Link Nilsen – Expo Fire Waterline Inspection
- KEC Engineering – Eastside Water Facility Coating Project
- Poseidon/San Diego County Water Authority - Carlsbad Desalination Plant
- Point Mugu Naval Base – Tank Coating Project
- Santa Clarita Water Company - Friendly Valley Tank Coating Project
- Valencia Water Company – Round Mountain Water Tank Coating Project
- Integrated Quality Services – Fueling System Pipe Coating Project
- CBI - Numerous New Water Storage Tanks

List of additional projects available upon request

Professional Certifications

NACE International – Certified Level 3 Coatings Inspector (No. 653860)

SSPC QP5 Level 3 Coating Inspector

Safety Certifications

- Fall Protection
- H_2S Entry
- CPR/First Aid
- Confined Space
- Respiratory Protection
- Lead-Abatement

Professional Affiliations

SSPC: The Society of Protective Coatings

NACE International

American Waterworks Association

Aurelio Corral

Inspector / Technician



Aurelio is an Industrial Coating Inspector and Cathodic Protection (CP) Technician with extensive experience in the coatings and corrosion industry. He specializes in surface preparation, coatings application, inspection, CP testing, and quality control.

Aurelio has worked on coatings and CP projects involving both concrete and steel structures for various utilities, agencies, and private owners. His experience includes work on storage tanks, pipelines, and structural steel within the water, wastewater, and petrochemical industries.

His coatings background includes materials such as inorganic zincs, epoxies, coal-tar enamels, vinyls, urethanes, acrylics, alkyds, PVC linings, and 100% solids systems. Surface prep methods include power tool cleaning, abrasive blasting, and hydroblasting on substrates such as steel, concrete, and masonry, using airless, conventional, and plural-component equipment.

Aurelio's CP work includes routine evaluation of both impressed current and sacrificial systems. He is proficient with inspection tools including adhesion testers, ultrasonic gauges, moisture meters, holiday detectors, pH meters, voltmeters, and reference cells. He is highly familiar with NACE, SSPC, and ASTM standards.

Professional Certifications

NACE International Certified Level 3 Coatings Inspector Certificate #30128

SSPC QP5 Level 3 Coating Inspector Training

Safety Certifications

Fall Protection

H2S Entry

Confined Space

Respiratory Protection

Lead-Abatement

CPR/First Aid

Professional Affiliations

SSPC: The Society of Protective Coatings

NACE International

American Waterworks Association

Additional Training

OSHA Safety Training

Aurelio served as Inspector/Technician for the following projects:

- Orange County Sanitation District – Primary Clarifiers H, I, N, & O Fountain Valley, CA
- Frito Lay Plant – Process Water Tanks, Bakersfield, CA
- San Gabriel Valley Water Co. – Ten Overpass Transmission Pipelines, El Monte, CA
- EBMUD – Tank Interior Lining Warranty Assessment, Oakland, CA
- Otay Water District – Concrete Reservoir Lining Application, Spring Valley, CA
- San Diego Water District – Water Storage Reservoirs, San Diego, CA
- LAX Delta Airlines Terminal – Jet Fuel Transmission Lines, Los Angeles, CA
- MASS DOT – Overpasses and Bridges, Various Locations, MA
- West Basin Municipal Water District – Water Reservoirs, Carson, CA
- IEUA – Potable Water Reservoirs, Chino, CA
- Chevron – Process Water Tank, El Segundo, CA
- Aera Energy – Process Water Tank, Bakersfield, CA
- Numerous Water and Petrochemical Projects – Shop-Fabricated Large-Diameter Pipe and Spools, Various Locations, CA
- Orange County Sanitation District – Concrete Sludge Tanks, Fountain Valley, CA
- IEUA – Installation of New Galvanic System, Chino, CA
- Aera Energy – Installation of Impressed Current System, Bakersfield, CA
- Orange County Water District – CP System Assessment Project, Fountain Valley, CA

HI-DESERT WATER DISTRICT

ASSISTANT RESIDENT ENGINEER'S REPORT

HDWD PHASE II SEWER COLLECTION SYSTEM | **Project: 227523-0001805.00** | **Print Date: 02/17/2026** Pending

LOCATION: Martinez Trail, Pinon Drive, Pinon Ct. in Yucca Valley.

DESCRIPTION OF OPERATION: Fine grading and Asphalt paving

SAFETY ISSUES: Traffic control

JOB STAMP:	HDWD PHASE II AND III SEWER COLLECTION SYSTEM PROJECT															
WSWD:	Working Day	**HOURS AND ITEM NUMBERS**								**INSPECTOR:**	Haykaz Aghajanian					
USER HOURS:	8.00 Reg, 1 OT									**DATE:**	12-10-2025					
SHIFT HOURS:	0600 to 1600 (10)									**DAY**	**S**	**M**	**T**	**W**	**TH**	**F**	**S**
O.T. HOURS:	1430 to 1600 (1.5)													X			
REPORT NO:	HA165																
EQUIPMENT AND / OR LABOR										**WEATHER:**	Sunny **Current Temp:** 69 °F **W:** N 7 TO 10 MPH **L:** 51 °F | **H:** 69 °F						

CONTRACTOR EQUIPMENT										**CONTRACTOR EMPLOYEE**	
EQ. NO.	**MAKE**	**DESCRIPTION**								**EMPLOYEE**	**TITLE**
Sukut Construction											
23533B	Chevy	Chevy-P/U-Lic-23533B4	9						9	Curtis Miller	Grade checker/operator
202393	CAT	CS11GC-CAT-Viberatory-Soil-Compactor	9						9	Brad Navario	Operator
1403	CAT	CAT-Blade-Motor-Grader	9						9	Paul Feliciano	Operator
541	Chevy	Chevy-Utility-P/U	9						9	Eric Duarte	Labor
									9	Efrain Velasquez	Laborer
250035	CAT	CAT-Skip-Loader-(ED6W43)	9						9	Paul Fraijo	Operator
									9	Jose Rodriguez	Laborer
									9	Abraham Gonzalez	Labor
C5-J5	Peterbilt	Water-truck-Lic-769635	9						9	Jack Ortez	Operator
28065F	Chevy	Chevy-P/U-Lic-28065F4								Mendenhall William	Foreman
PTI (Premier Testing and Inspection, INC.)											
									9	Mwiza Mhango	Inspector
26620F	Ford	Ford-P/U-Lic-26620F3							9	Robert Hinch	Inspector

HI-DESERT WATER DISTRICT

ASSISTANT RESIDENT ENGINEER'S REPORT

HDWD PHASE II SEWER COLLECTION SYSTEM | Project: 227523-0001805.00 | Print Date: 02/17/2026 Pending

Matich Corporation											
7-289	Ford	Ford-P/U-Lic-6949BN3	9.5						8.5	Gilbert Rodríguez	Foreman
14-141	John-Deere	Deere-Skid-Loader-(JJ7A68)	1						1	Gilbert Rodríguez	Foreman
15-159	CAT	CAT-SE60-V-Asphalt-Screed-(AE7N53)	8						9.5	John Lamas	Operator
			8						9.5	Christin Lamas	Screedman
			8						9.5	Eduardo Navarro	Screedman
16-140	CAT	CAT-Tandem-Vibratory-Rollers	8						9.5	Jim Valente	Operator
16-136	CAT	CAT-CW34-Pneumatic-Rollers	7						8.5	Mario Juarez	Operator
16-132	CAT	CAT-CB34B-Tanem Vibratory-Rollers	1						1	Mario Juarez	Operator
16-132	CAT	CAT-CB34B-Tanem Vibratory-Rollers	7						7.5	John Delgado	Operator
14-145	CAT	CAT-262D3-Skid-Steer-Loader	1						2	John Delgado	Operator
5-026	Freightliner	Sweeper-Lic-619076	7						7	Russel Follett	Operator
None1	Mikasa	MQ-Mikasa-22-Plate-Vibrator	8						9.5	Irving Reyes	Laborer
			8						9.5	Bernie Ayon	Laborer
			8						9.5	Jorge Cortez	Laborer
			8						9.5	Nolberto Gonzales	Laborer
CAL-WESTERN WEED CONTROL, INC											
02	Ford	Ford-P/U-Lic-73062W2	8						8	Guillerrao Grajeda	Spray Operator

HI-DESERT WATER DISTRICT

ASSISTANT RESIDENT ENGINEER'S REPORT

HDWD PHASE II SEWER COLLECTION SYSTEM | Project: 227523-0001805.00 | Print Date: 02/17/2026 Pending

Sukut Construction

Project sites: Martinez Trail, Pinon Drive, Pinon Ct. in Yucca Valley.

Crew of (12) at project site approx. at 6:30 AM and off the site approx. at 4:30 PM.

Work description: Fine grading and asphalt paving

• Mendenhall William (Foreman).

• Curtis Miller (Grade Checker).

• Malcolm Driggs (Grade Checker).

• Paul Feliciano was operator of the CAT-14M Motor Grader Blade (Equipment number 1403, Gov. Code BP9K99, SUKUT Equipment, Inc.) approx. for 9.5 Hours.

• Ryan Mckenna was operator of a skip loader CAT-415 with equipment number 2500351, QUINN Rental, Gov. Code (LR9B79) approx. for 9.5 Hours.

• Paul Fraijo was operating of a skip loader CAT 415 (Equipment number 2500352, Gov. Code ED6W43, CAT QUINN Rentals) approx. for 9.5 Hours.

• Brad Nazario was operator of the CAT-CS11GC Vibratory Compactor (Equipment number 2023936, Gove. Code UN6L55, CAT QUINN Rentals) approx. for 9.5 Hours.

• Eric Duarte (laborer) and was driver of a Chevy P/U (SUKUT 541) helper approx. for 9.5 Hours.

• Jack Ortez (Teamster) of a (Peterbilt Lic-769635) water-truck with a equipment number (C5-J5, C5 EQUIPMENT Rentals) approx. for 9.5 hours.

• Efrain Velasquez, Jose Rodriguez and Abraham Gonzalez were involved in labor tasks approx. for 9.5 hours.

PTI (Premier Testing and Inspection, INC.)

Robert Hinch and Mwiza Mhango were performing "Nuclear-Density-Gauge-Testing" for the paved asphalt on Martinez Trail, Pinon Drive, Pinon Ct. approx. for 9-Hours.

Matich Corporation

Project sites: Martinez Trail, Pinon Drive, Pinon Ct. in Yucca Valley.
Work description: 3.5" of (1/2" PG 70-10 Asphalt Paving).

Crew of (12):
Contractor paved the following roads:
a)- Pinon Ct. (Cul-de-sac).
b)- Pinon Drive.
The asphalt is being laid down at temp = 275 to 301

• Gilbert Rodríguez was foreman and driver of a Ford with lic-69498N3 and a equipment number 7-289.
• Gilbert Rodríguez was operating skid-Steer for removing of debris approx. for 1-Hour.
• John Cleland was operator of a CAT-SE60 paver approx. for 8-Hours.
• Robert Diaz was a Screedman approx. for 8-Hours.
• Justin Kinzle was a Screedman approx. for 8-Hours.
• Ron Molina was operator of a CAT-CW34 (Roller) with equipment number 16-132 and Gov. Code (EU9L47) and a CAT-CB34B roller approx. for 8-Hous.
• Mario Juarez was operator of a CAT-CW34 roller with equipment number 16-136 and Gov. Code (CT4T74) approx. for 8-Hous.
• Marcos Garcia was operator of CAT-CB34B roller with equipment number 16-132 and Gov. Code (EU9L47) approx. for 8-Hours.
• Russell Follett operator (Sweeper) Freightliner Lic-619076 equipment number (5-026approx. for 7-Hours.
• Lorenzo Cortez (Laborer) was driver of a (Crew Truck) Ford pickup with Lic-64159U3 and trailer Lic-SE705317. Spraying Tac Coat on the face of gutter's approx. for 9.5-Hours.
• David Cortez (Laborer)) approx. for 9.5-Hours.
• Norberto Gonzales (Laborer) approx. for 9.5-Hours.
• Noe Hernandez was a laborer approx. for 9.5-Hours.

Number of loads: 80
Total weight of today's asphalt=1536.88 Tons

CAL-WESTERN WEED CONTROL, INC

Guillerra Grajeda (Spray Operator) Ford P/U with Lic-73062W2.

Misc / Visitors / Instructions to Contractor

ITEM #	ITEM DESCRIPTION	LOCATION	QUANTITY	
				-
INSPECTOR SIGNATURE:		Haykaz Aghajanian	**NAME:**	Haykaz Aghajanian

HI-DESERT WATER DISTRICT

ASSISTANT RESIDENT ENGINEER'S REPORT

HDWD PHASE II SEWER COLLECTION SYSTEM | Project: 227523-0001805.00 | Print Date: 02/17/2026 Pending



T-intersection of Cardillo Trail and Pinon Drive, the photo was captured facing northwest.



T-intersection of Primavera Drive and Pinon Drive, the photo was captured facing west.



T-intersection of Primavera Drive and Pinon Drive, the photo was captured facing northeast.



T-intersection of Cardillo Drive and Pinon Drive, the photo was captured facing northwest.

HI-DESERT WATER DISTRICT

ASSISTANT RESIDENT ENGINEER'S REPORT

HDWD PHASE II SEWER COLLECTION SYSTEM | Project: 227523-0001805.00 | Print Date: 02/17/2026 Pending



T-intersection of Pinon Ct and Pinon Drive, the photo was captured facing southwest.



T-intersection of Cardillo Trail and Pinon Drive, the photo was captured facing south.

HI-DESERT WATER DISTRICT

ASSISTANT RESIDENT ENGINEER'S REPORT

HDWD PHASE II SEWER COLLECTION SYSTEM | Project: 227523-0001805.00 | Print Date: 02/17/2026 Pending



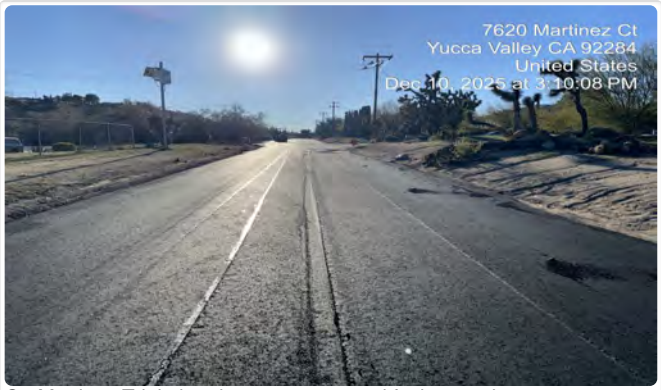
On Pinon Drive, the photo was captured facing northwest.



T-intersection of Pinon Drive and Martinez, the photo was captured facing northeast.



T-intersection of Pinon Drive and Martinez, the photo was captured facing northwest.



On Martinez Trial, the photo was captured facing southwest

HI-DESERT WATER DISTRICT

ASSISTANT RESIDENT ENGINEER'S REPORT

HDWD PHASE II SEWER COLLECTION SYSTEM | Project: 227523-0001805.00 | Print Date: 02/17/2026 Pending



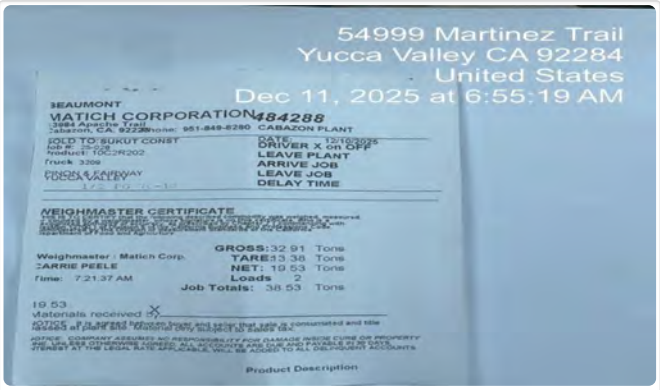
On Martinez Trial, the photo was captured facing northeast.

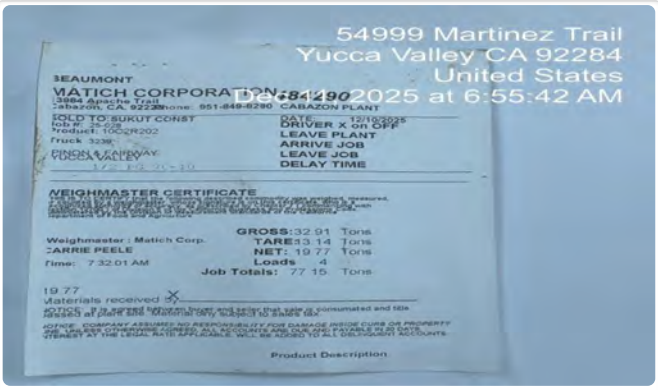


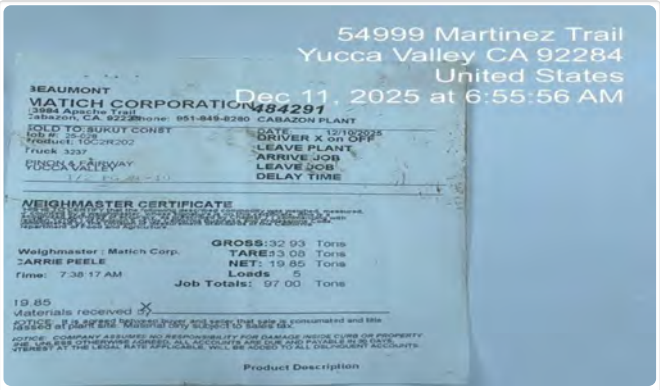
HI-DESERT WATER DISTRICT

ASSISTANT RESIDENT ENGINEER'S REPORT

HDWD PHASE II SEWER COLLECTION SYSTEM | Project: 227523-0001805.00 | Print Date: 02/17/2026 Pending







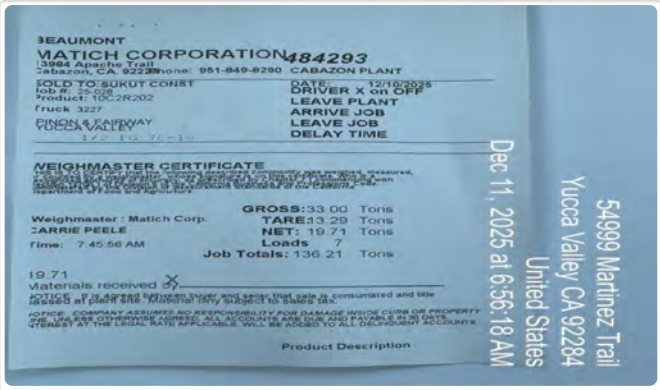


HI-DESERT WATER DISTRICT

ASSISTANT RESIDENT ENGINEER'S REPORT

HDWD PHASE II SEWER COLLECTION SYSTEM | Project: 227523-0001805.00 | Print Date: 02/17/2026 Pending



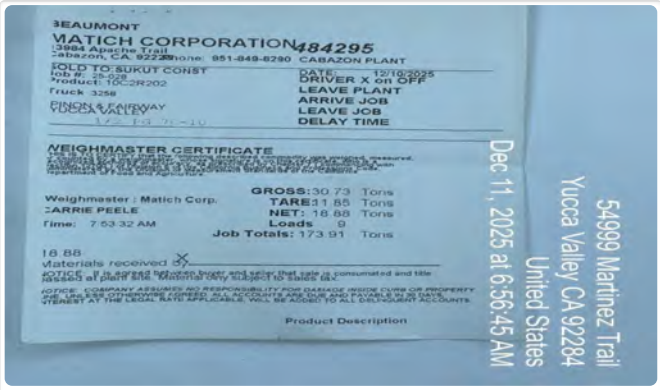


HI-DESERT WATER DISTRICT

ASSISTANT RESIDENT ENGINEER'S REPORT

HDWD PHASE II SEWER COLLECTION SYSTEM | Project: 227523-0001805.00 | Print Date: 02/17/2026 Pending







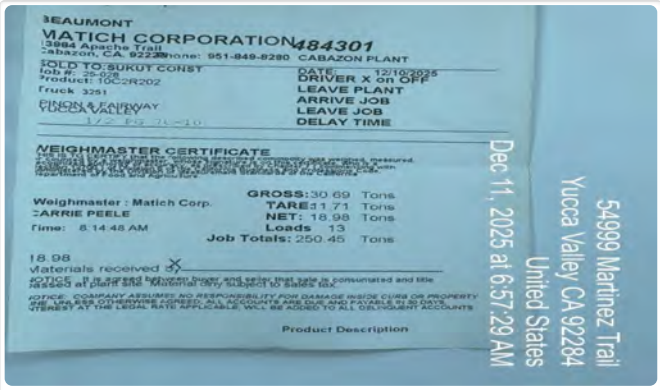


HI-DESERT WATER DISTRICT

ASSISTANT RESIDENT ENGINEER'S REPORT

HDWD PHASE II SEWER COLLECTION SYSTEM | Project: 227523-0001805.00 | Print Date: 02/17/2026 Pending





AGENDA ITEM NO. 4.F

DATE: April 7, 2026

TO: Board of Directors

FROM: General Manager

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

---

SUMMARY:

On March 24, 2025, Ronald Jones commenced work as a retired annuitant to assist the Water Operations Department with a backlog of assignments. Mr. Jones possesses the required specialized expertise to provide needed support to the District for a limited duration. The assignment was originally anticipated to last 12 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. Jones' 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, Ronald Jones, 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 2025-26 Budget for this purpose due to salary savings associated with vacant positions. For Fiscal Year 2026-27, the cost is also anticipated to be covered by salary savings associated with vacant positions. Currently, up to $50,000 is authorized for the assignment. Staff

proposes increasing the total compensation authorized to $80,000 to align with the anticipated duration and hours of the assignment.

DISCUSSION:

Retired Annuitant Ron Jones' current assignment commenced on March 24, 2025, and was originally projected to last up to 12 months. However, the department still has a need for Mr. Jones' services based on the current and anticipated workload and proposes to extend Mr. Jones' assignment by six months. The assignment is projected to reach the General Manager's purchasing authority by the current 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.

Over the past year, Mr. Jones has been completing utility markings throughout the District's service area. His role was critical to support the numerous external utility relocations following the Palisades Fire. Mr. Jones has also played a critical role in preparing the District's Leak Detection Program, which is planned to begin in April 2026 and intended to proactively prevent emergency mainline failures within the District. Mr. Jones will be integral in helping to implement this program. His input and historical knowledge also remain critical in identifying priority replacements for the District's Pipeline Replacement and Rehabilitation Program. Mr. Jones continues to provide support in these areas, as well as training and mentorship to new construction staff. The department anticipates being more caught up and able to manage these programs by relying solely on permanent staff in about six months.

Mr. Jones previously worked for the District in this capacity for over 22 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 unique work. 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, Human Resources Manager

The Metropolitan Water District of Southern California

Water Supply Conditions Report - https://www.mwdh2o.com/WSCR

Questions? Reach out via the form: https://forms.office.com/g/Gj3aReAuCm

Agenda Item No. 5.A

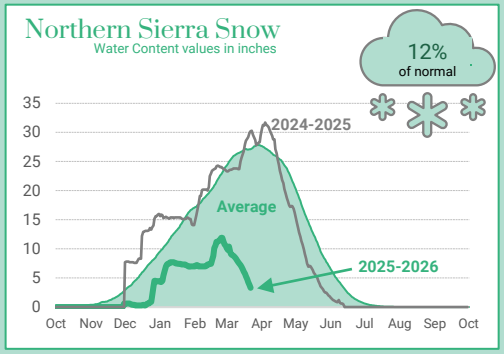
Water Year 2025-2026

As of: 03/22/2026

State Water Project

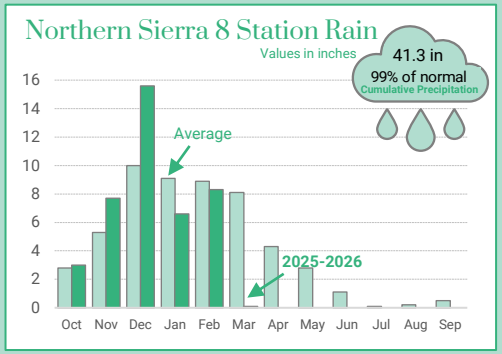
Northern Sierra Snow

Water Content values in inches



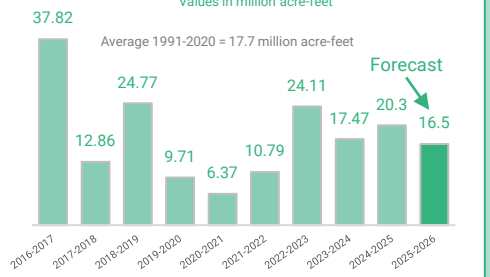
Northern Sierra 8 Station Rain

Values in inches



Sacramento River Runoff

Values in million acre-feet



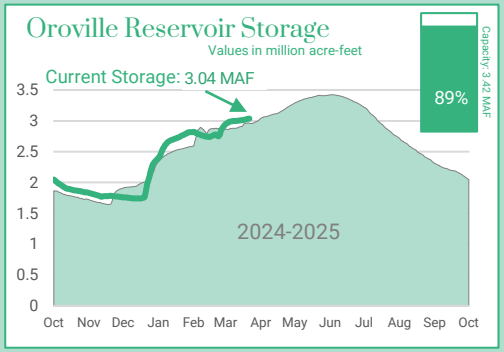
2026 State Water Project Allocation

30%

Current Table A allocation set on January 29, 2026

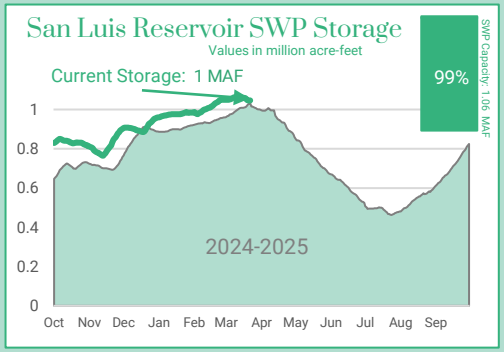
Oroville Reservoir Storage

Values in million acre-feet



San Luis Reservoir SWP Storage

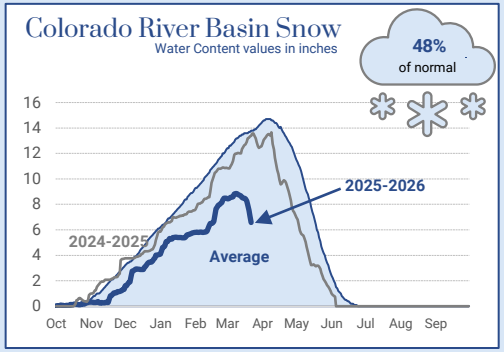
Values in million acre-feet



Colorado River

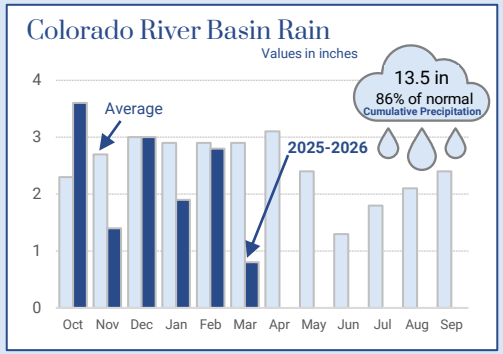
Colorado River Basin Snow

Water Content values in inches



Colorado River Basin Rain

Values in inches



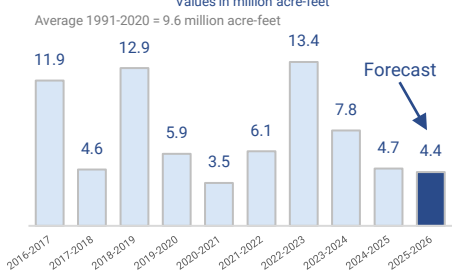
Lake Mead Chance of Operating Condition

		2026	2027*	2028*	2029*
	Surplus (above 1,145 ft)	0%	0%	0%	0%
	Normal Year (between 1,075 and 1,145 ft)	0%	7%	3%	10%
Shortage	1st Level (between 1,050 and 1,075 ft)	100%	50%	30%	20%
Shortage	2nd Level (between 1,025 and 1,050 ft)	0%	40%	53%	43%
Shortage	3rd Level (below 1,025 ft)	0%	3%	13%	27%

* Years beyond 2026 assume continuation of current operating guidelines

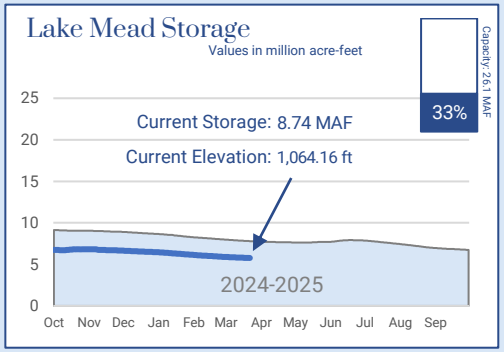
Unregulated Inflow into Lake Powell

Values in million acre-feet



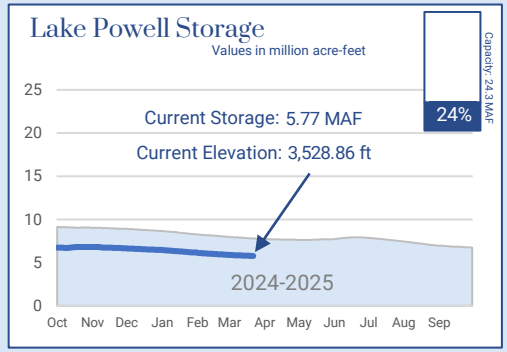
Lake Mead Storage

Values in million acre-feet



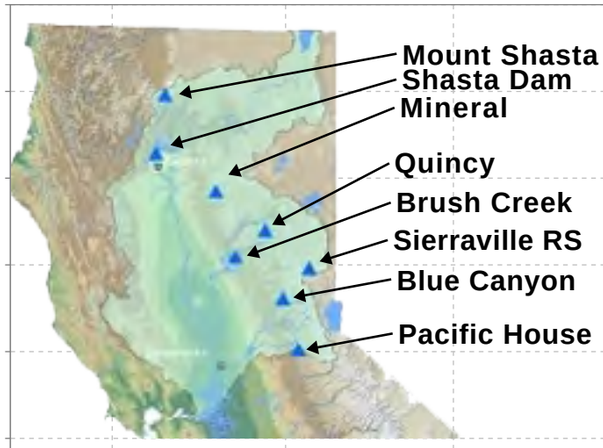
Lake Powell Storage

Values in million acre-feet



Water System Infrastructure : https://www.mwdh2o.com/how-we-get-our-water/

Northern Sierra Precipitation: 8-Station Index, March 31, 2026



Percent of Average for this Date: 93%

2016-2017 Daily Precip (wettest) 94.7

1982-1983 Daily Precip (2nd wettest) 88.5

2024 - 2025 Daily Precip 56.6

Average (1991-2020) 53.2

2023 - 2024 Daily Precip 48.2

Current: 41.3

2020-2021 Daily Precip (3rd driest) 24.0

1923-1924 (driest) 19.0

1976-1977 (2nd driest) 17.1

Cumulative Daily/Monthly Precipitation (inches)

Total Water Year Precipitation

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

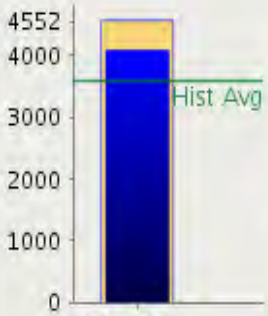
Oct 1 Nov 1 Dec 1 Jan 1 Feb 1 Mar 1 Apr 1 May 1 Jun 1 Jul 1 Aug 1 Sep 1 Oct 1

Water Year (October 1 - September 30)

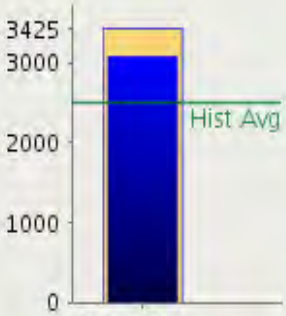
CURRENT CONDITIONS: MAJOR WATER SUPPLY RESERVOIRS:30-MAR-2026

Data as of Midnight: 30-Mar-2026

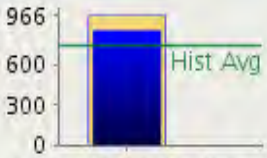
Change Date: 30-Mar-2026



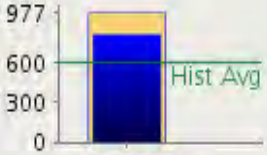
Shasta
90% (Total Cap.) | 114% (Hist. Avg.)



Oroville
90% (Total Cap.) | 123% (Hist. Avg.)



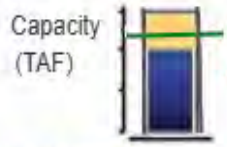
New Bullards Bar
89% (Total Cap.) | 115% (Hist. Avg.)



Folsom
83% (Total Cap.) | 133% (Hist. Avg.)

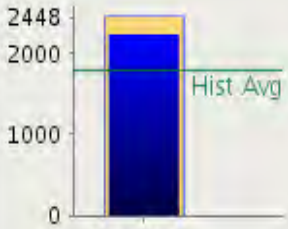
LEGEND

Blue Bar: Storage level for date
Gold Bar: Total reservoir capacity
Green Line: Historic level for date.



% of Capacity | **% Hist. Avg.**
(Click res. 3 char. code for details)

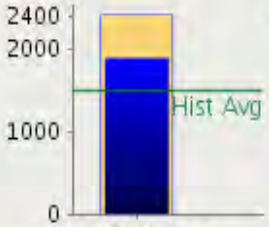
Data from: 03/29



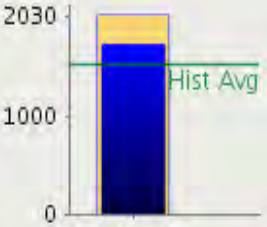
Trinity
91% (Total Cap.) | 124% (Hist. Avg.)



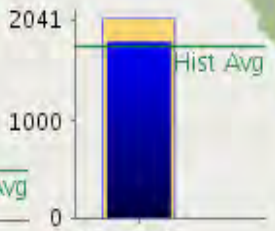
Camanche
79% (Total Cap.) | 125% (Hist. Avg.)



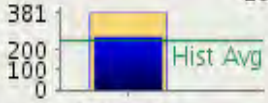
New Melones
78% (Total Cap.) | 126% (Hist. Avg.)



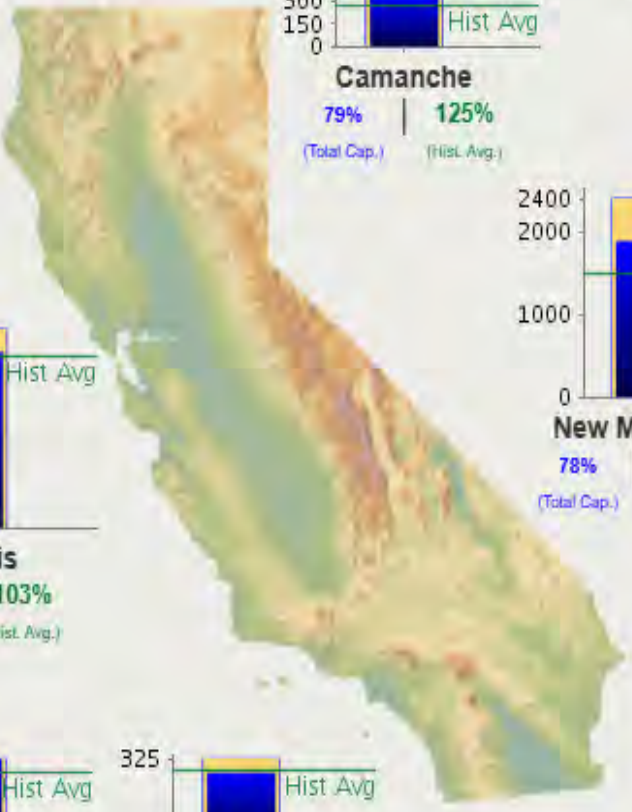
Don Pedro
86% (Total Cap.) | 114% (Hist. Avg.)

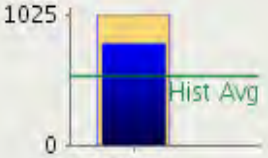


San Luis
89% (Total Cap.) | 103% (Hist. Avg.)

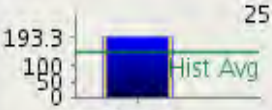


Sonoma
69% (Total Cap.) | 109% (Hist. Avg.)

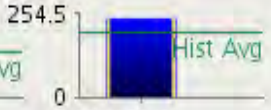




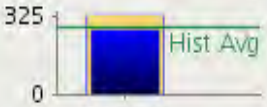
McClure
78% (Total Cap.) | 146% (Hist. Avg.)



Cachuma
100% (Total Cap.) | 132% (Hist. Avg.)



Casitas
100% (Total Cap.) | 121% (Hist. Avg.)



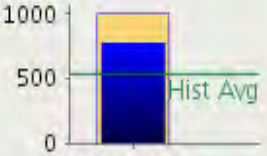
Castaic
82% (Total Cap.) | 97% (Hist. Avg.)



Diamond Valley
97% (Total Cap.) | 130% (Hist. Avg.)



Millerton
80% (Total Cap.) | 113% (Hist. Avg.)



Pine Flat
78% (Total Cap.) | 147% (Hist. Avg.)

Click to download printable version of current data.

Report Generated: 31-Mar-2026 2:55 PM

The CSI link has been disabled to zoom in, for the lack of historical data.



CURRENT REGIONAL SNOWPACK FROM AUTOMATED SNOW SENSORS

% of April 1 Average / % of Normal for This Date



NORTH	
Data as of March 30, 2026	
Number of Stations Reporting	33
Average snow water equivalent (Inches)	1.5
Percent of April 1 Average (%)	6
Percent of normal for this date (%)	6

CENTRAL	
Data as of March 30, 2026	
Number of Stations Reporting	54
Average snow water equivalent (Inches)	5.6
Percent of April 1 Average (%)	20
Percent of normal for this date (%)	20

SOUTH	
Data as of March 30, 2026	
Number of Stations Reporting	24
Average snow water equivalent (Inches)	7.8
Percent of April 1 Average (%)	33
Percent of normal for this date (%)	33

STATE	
Data as of March 30, 2026	
Number of Stations Reporting	111
Average snow water equivalent (Inches)	4.9
Percent of April 1 Average (%)	18
Percent of normal for this date (%)	18

Statewide Average: 18% / 18%

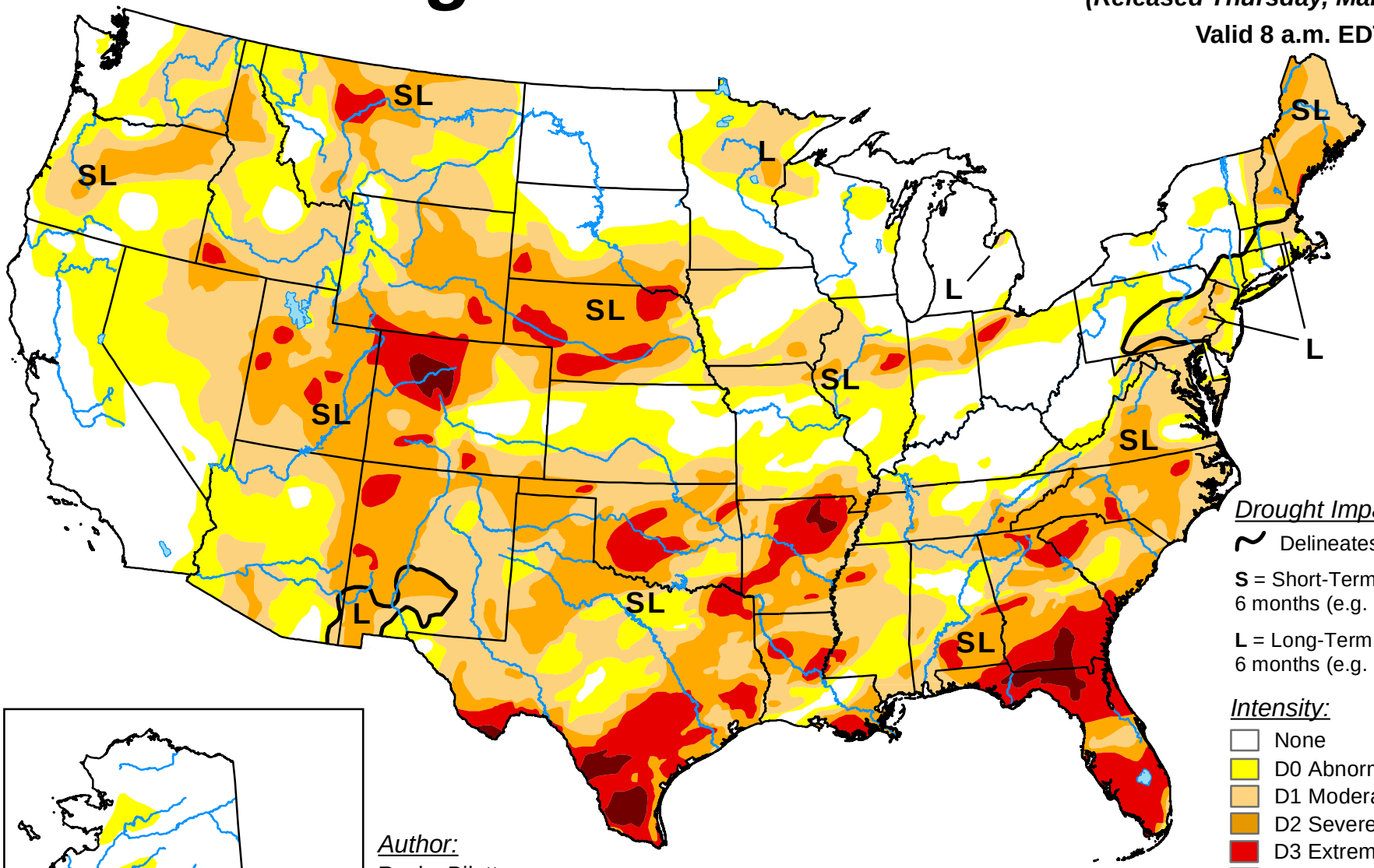
Data as of March 30, 2026

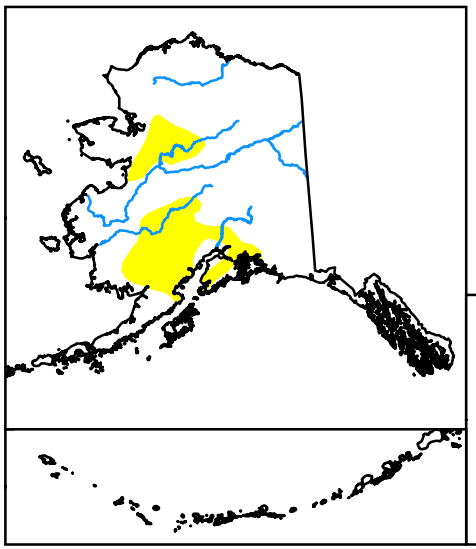
U.S. Drought Monitor

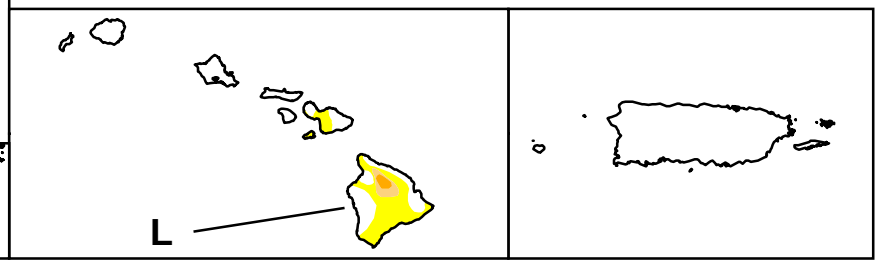
March 24, 2026

(Released Thursday, Mar. 26, 2026)

Valid 8 a.m. EDT







Drought Impact Types:

Delineates dominant impacts

S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)

L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

Author:

Rocky Bilotta

NCEI/NOAA

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

USDA NDMC NOAA NASA

AGENDA ITEM NO. 7.A

DATE: April 7, 2026

TO: Board of Directors

FROM: General Manager

SUBJECT: Local Agency Formation Commission: Election of Special District Representative

---

SUMMARY:

On March 9, 2026, the District received notification from Lagerlof LLP, on behalf of the Local Agency Formation Commission (LAFCO), that ballots for LAFCO's Special District Representative must be returned by May 1, 2026. There are 3 candidates for the position of Special District Representative: (1) Gary Burns; (2) Vera Robles DeWitt; (3) Robert W. Lewis.

Information on the candidates is provided with the attached ballot package.

RECOMMENDATION(S):

Select a candidate to serve as the Local Agency Formation Commission Special District Representative and authorize the General Manager to execute and return the official voting ballot no later than 5:00 p.m. on Friday, May 1, 2026.

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

ATTACHMENTS:
LAFCO Ballot - Election of Special District Representative

MEMORANDUM

TO: PRESIDING OFFICER OF EACH INDEPENDENT SPECIAL DISTRICT IN LOS ANGELES COUNTY

FROM: WILLIAM F. KRUSE

RE: BALLOT; SPECIAL DISTRICT LAFCO REPRESENTATIVE

DATE: March 9, 2026

Enclosed is the Ballot and the supplementary materials submitted for each of the candidates for Special District LAFCO **VOTING MEMBER** for the term expiring in May 2030. Nominations closed as of 5:00 p.m. on March 6, 2026.

Please vote for ONE candidate for the position. The marked ballot should be placed in the envelope marked "Ballot Envelope" and sealed. Please write the name of your agency and sign your name on the outside of the ballot envelope and return the completed ballot by mail to:

William F. Kruse, Esq.
Lagerlof, LLP
155 N. Lake Avenue, 11th Floor
Pasadena, CA 91101.

No ballot will be counted if it is missing the name of the voting agency and the signature of the Presiding Officer on the ballot envelope.

The candidate receiving the highest number of votes will be declared the Special District **Voting Member** to LAFCO.

Ballots must be returned by 5:00 p.m. on Friday, May 1, 2026.

WFK/kn
Enclosures

cc(w/ encls.): Paul Novak

Lagerlof LLP
155 N Lake Avenue, 11th Flr
Pasadena, CA 91101

Lagerlof.com
Email: wfkruse@lagerlof.com

T: (626)-793-9400
F: (626)-793-5900

Lagerlof LLP

MEMORANDUM

TO: PRESIDING OFFICER OF EACH INDEPENDENT SPECIAL DISTRICT IN LOS ANGELES COUNTY

FROM: WILLIAM F. KRUSE

RE: ELECTION OF LAFCO ALTERNATE REPRESENTATIVE (UNOPPOSED)

DATE: March 9, 2026

The nomination for LAFCO Alternate Representative closed as of 5:00 p.m. on March 6, 2026. One (1) nomination was received for LAFCO Alternate Representative. The results are as follows:

JORGE MARQUEZ

Mr. Marquez will serve as Alternate LAFCO Representative with his term beginning on Monday, May 4, 2026.

WFK/kn
Enclosures

cc(w/ encls.): Paul Novak

Lagerlof LLP
155 N Lake Avenue, 11th Flr
Pasadena, CA 91101

Lagerlof.com
Email: wfkruse@lagerlof.com

T: (626)-793-9400
F: (626)-793-5900

OF
INDEPENDENT SPECIAL DISTRICT **ALTERNATE MEMBER**
TO THE
LOS ANGELES COUNTY LOCAL AGENCY FORMATION COMMISSION

To: Independent Special District Selection Committee

From: Three Valleys Municipal Water District

Date: February 10, 2026

Name of Candidate: Jorge Marquez

Three Valleys Municipal Water District is pleased to nominate Jorge Marquez as a candidate for appointment as special district **alternate member** to the Los Angeles Local Agency Formation Commission. The nominee is an elected official or a member of the board of an independent special district appointed for a fixed term. For your consideration, we submit the following additional information together with a resume of the candidate's qualifications.

Elective office: Board of Directors

Agency: Three Valleys Municipal Water District

Type of Agency: Special District - Wholesale Water Agency

Term Expires: December 2028

Residence Address: 1747 Home Terrace Dr., Pomona, CA 91768

Telephone: 626-991-0247

PLEASE ATTACH RESUME OR CANDIDATE STATEMENT (limit one page)

Three Valleys Municipal Water District
(Name of Agency)

By: Matthew H. Litchfield, P.E.

Its: General Manager/Chief Engineer



RESUME FOR LOCAL AGENCY FORMATION COMMISSION FOR THE COUNTY OF LOS ANGELES

Alternate Member

JORGE A. MARQUEZ

DIRECTOR, THREE VALLEYS MWD

CONTACT

626-991-0247

jmarquez@tvmwd.com

www.tvmwd.com

PERSONAL

- Real Estate Agent
- Government Affairs Consultant
- Married and a Father
- Member of Various Service Clubs
- Educator

EDUCATION

- **B.A Political Science & Minor Communications Studies**

  Cal Poly Pomona

  2006

PUBLIC SERVICE HISTORY

I respectfully submit my resume for the alternate member position for LAFCO. I have two decades of experience in legislative affairs and local government across Los Angeles County and the San Gabriel Valley. My career in public service began in 2006 as a legislative staffer in the California State Assembly and later the State Senate, where for 12 years I worked on policy issues including water, housing, and public safety. In 2013, I was elected to the Covina City Council, where I served until 2022. During my tenure, I represented the region on multiple regional governing bodies. In 2024, I was elected to the Three Valleys Municipal Water District. This combination of state legislative experience and local elected service has prepared me to be a collaborative and effective partner for this position.

PUBLIC SERVICE TIMELINE HIGHLIGHTS

- **COVINA CITY COUNCIL**

2013-2022 (City Council) Mayor (2017-2018; 2021-2022)

- **SAN GABRIEL BASIN WATER QUALITY AUTHORITY**

2017-2022 (Boardmember) Chairman (2017-2020)

- **SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

2019-2022 (Regional Councilmember District 33)

2020-2022 (Chairman Community, Economic, and Human Development Committee)

- **THREE VALLEYS MUNICIPAL WATER DISTRICT**

2024-present (Director Division 6)

BALLOT

SPECIAL DISTRICT LAFCO **VOTING MEMBER**

Please vote for no more than one candidate.

☐ **GARY BURNS**
Occupation: Board of Directors
Sponsor: Las Virgenes Municipal Water District

☐ **VERA ROBLES DeWITT**
Occupation: Board of Directors
Sponsor: Water Replenishment District of Southern California

☐ **ROBERT W. LEWIS**
Occupation: Board of Directors
Sponsor: Rowland Water District

NOMINATION
OF
INDEPENDENT SPECIAL DISTRICT VOTING MEMBER
TO THE
LOS ANGELES COUNTY LOCAL AGENCY FORMATION COMMISSION

To: Independent Special District Selection Committee

From: Las Virgenes Municipal Water District

Date: 3/6/26

Name of Candidate: Gary Burns

Las Virgenes Municipal Water District is pleased to nominate Gary Burns as a candidate for appointment as special district voting member to the Los Angeles Local Agency Formation Commission. The nominee is an elected official or a member of the board of an independent special district appointed for a fixed term. For your consideration, we submit the following additional information together with a resume of the candidate's qualifications.

Elective office: Board of Directors

Agency: Las Virgenes Municipal Water District

Type of Agency: Special District Water and Wastewater

Term Expires: December 2026

Residence Address: 22118 Dardenne St. Calabasas CA 91302

Telephone: 818-326-2000

PLEASE ATTACH RESUME OR CANDIDATE STATEMENT (limit one page)

Las Virgenes Muncipal Water District
(Name of Agency)

By: _____

Its: Andy Coradeschi, Board President

NOMINATION

Local Agency Formation Commission (LAFCO):

Nomination of Candidate for Special District Board Member

Gary Burns, Candidate for LAFCO Member Position 2026

I would like to thank each district board as I am asking for your vote, to become a full member of the LAFCO Board.

It is time to add "fresh" ideas and excitement to how LAFCO communicates and operates. **To that end, please call me at 818 326 2000 to discuss your specific issues. I will listen intently, absorbing your insight.**

I hope to visit each of your Board Meetings via zoom or in person to introduce myself, listen to what is important to your district and provide the confidence that I can lead LAFCO into the future.

I desire to serve as a LAFCO Board Member to further serve the community, each of our districts and provide "new" and "environmental" input to the Los Angeles Region and the Supervisors we report to. Few citizens know what LAFCO accomplishes or what the initials stand for. I intend to change that.

As with the homeowners of Calabasas and the entire www.LVMWD.com area, I am available to advocate for or listen to constituents whenever needed. I pledge to do the same for ALL LAFCO Districts.

Gary Burns was elected to the Las Virgenes Municipal Water District Board in 2022. (Division 3, currently Secretary). He is the first Calabasas resident to serve on the District Water Board. **Since his time on the District Board, he has imbued his efforts with energy and the desire to effect change.** He has visited various local and state water facilities and Districts. **He is a member of ACWA, CASA, WateReuse and has attended their conventions throughout the year, attaining insight into District, State and Water Policy. He is serving on the Business Development Committee of ACWA Region 8. He is championing a Heli-Hydrant project with Los Angeles County Fire, the City of Calabasas and the local Council of Governments.**

In his efforts to search for new sources of water, Gary has visited the future SITES Reservoir Project, the Delta Project, and various Metropolitan Water District facilities, including the in-development Carson Pure Water Plant, etc. His goal is to ensure there is a sufficient water supply for future generations, while preserving the environment in Southern California, the State of California, and the United States.

Growing up on the East Coast, Gary moved to California in 1989, watched the City of Calabasas incorporate in 1991 and has been a resident of Calabasas for the past 35 years. He attended Fairleigh Dickenson (FDU) and Hofstra University where he received a BA and Master's in Psychology and an MBA in Business and Finance.

Gary has been President of the Mulholland Heights Homeowners Association for the past 10 years. Currently, he is a Board Member of The Valley Economic Alliance (ww.thevalley.net) Community Associations Institute, 2018 - 2024 (CAI of Greater Los Angeles County), a Board Member of CAI International, National Homeowner Leaders Council 2021 – 2024 and recognized by CAI Los Angeles for Excellence in Community Leadership.

He is also a founding member of EPIC, (Emergency Preparedness in Calabasas, www.epic-fsc.com), volunteers for many local community activities, and is a Life and Health Insurance Broker (https://garyburns.businsslinksolutions.net).

Thank You for your vote and consideration of Gary Burns for LAFCO Board Member (818 326 2000 mobile/text)

NOMINATION
OF
INDEPENDENT SPECIAL DISTRICT VOTING MEMBER
TO THE
LOS ANGELES COUNTY LOCAL AGENCY FORMATION COMMISSION

To: Independent Special District Selection Committee

From: Sergio Calderon

Date: 3-3-26

Name of Candidate: Vera Robles DeWitt

Sergio Calderon is pleased to nominate Vera Robles DeWitt as a candidate for appointment as special district voting member to the Los Angeles Local Agency Formation Commission. The nominee is an elected official or a member of the board of an independent special district appointed for a fixed term. For your consideration, we submit the following additional information together with a resume of the candidate's qualifications.

Elective office: Director, Treasurer Div 5

Agency: Water Replenishment District of So Ca
WRD

Type of Agency: Groundwater Replenishment

Term Expires: Nov 2029

Residence Address: 24728 Panama Avenue
Carson, California 90745

Telephone: 310 505-8353

PLEASE ATTACH RESUME OR CANDIDATE STATEMENT (limit one page)

Water Replenishment District of So. Calif (WRD)
(Name of Agency)

By: _____

Its: President, Board of Directors

NOMINATION



LAFCO

Independent Special District Member
Candidate Statement

Vera Robles DeWitt

I respectfully seek your support for my candidacy to represent you as your representative on the Local Agency Formation Commission (LAFCO) as the designee for all Independent Special Districts.

I currently serve as an elected Director for the Water Replenishment District of Southern California (WRD). I have served continuously on the WRD Board since 2018 and was overwhelmingly re-elected in November 2024. I was directly elected to represent an area with 738,851 residents that encompasses 14 special Districts; specifically, the following:

- 16 school districts
- 29 water districts
- And for geographic context 10 cities, Bellflower, Carson, Downey, Hacienda Heights, La Habra Heights, La Mirada, Norwalk, Paramount, Santa Fe Springs and Whittier along with numerous unincorporated areas of LA County.

During my tenure I have made it a point to know and visit all special districts because I want to be accessible and available to you, which is what I promise to be if you elect me as your Independent Special District representative to LAFCO.

BACKGROUND

For years I have been involved in many civic/non-profit programs. In 1992 I was the founding president of our local chapter of the Boys and Girls Club, and a founding board member of the Dominguez Family Shelter for abused and battered women. I am on the board of directors for the Carson Community Foundation and currently serve as Vice President of my local Kiwanis Club. Also, for the last eight years I've served as a member of the Executive Board for the South County Labor, AFL-CIO. And for the last 3 years have served as a board member representing a special district on the California Joint Powers Insurance Authority (JPIA) formed for mitigating the growing risks of public agencies.

I have been a homeowner since 1964, and as a single parent I raised one son, a member of IBEW Local 47 and one granddaughter who is a commercial airline pilot Captain.

I would be honored to represent you and promise to provide you with updates of LAFCO's activities so you are no longer in the dark left wondering what is going on at LAFCO, and with your support I look forward to contributing in a meaningful way to LAFCO and be a compelling voice for you and on behalf of all Independent Special Districts.

Vera Robles DeWitt
310 505.8353
Veradewitt22@gmail.com

NOMINATION
OF
INDEPENDENT SPECIAL DISTRICT **VOTING MEMBER**
TO THE
LOS ANGELES COUNTY LOCAL AGENCY FORMATION COMMISSION

To: Independent Special District Selection Committee

From: Rowland Water District

Date: February 23, 2026

Name of Candidate: Robert W. Lewis

Rowland Water District is pleased to nominate Robert W. Lewis as a candidate for appointment as special district voting member to the Los Angeles Local Agency Formation Commission. The nominee is an elected official or a member of the board of an independent special district appointed for a fixed term. For your consideration, we submit the following additional information together with a resume of the candidate's qualifications.

Elective office: Director, Division IV

Agency: Rowland Water District

Type of Agency: Special District (Water Agency

Term Expires: December 2026

Residence Address: 2231 S. Fullerton Road Unit #8,
Rowland Heights, CA 91748

Telephone: 626- 964-0875

PLEASE ATTACH RESUME OR CANDIDATE STATEMENT (limit one page)

Rowland Water District
(Name of Agency)

By: [signature]

Its: Board President

NOMINATION



LAFCO Candidate Statement

Robert W. Lewis

As the incumbent Special District Voting Member to the Los Angeles County Local Agency Formation Commission, I am respectfully seeking reappointment to continue the work I have been privileged to take part in. With nearly 34 years of service to Rowland Water District and its ratepayers, and direct experience serving on this Commission, I bring institutional knowledge and operational continuity that serves LAFCO and the public it represents.

Residents rightly expect their government to operate with full transparency and accountability. As LAFCO's special district representative, I have embraced that responsibility in every matter before the Commission. Whether reviewing agency boundaries, evaluating service adequacy, or weighing consolidation decisions, I have applied a consistent standard: the public must be able to understand what is being decided, why it is being decided, and how it serves their interests. Reappointment means that standard continues without interruption.

My career in local government began on the City of Fullerton's Redevelopment Commission and has grown into decades of active participation across regional water, utility, and policy bodies. This experience has given me a firsthand understanding of how agencies interact, where collaboration succeeds, and where gaps in coordination create real costs for communities. I currently represent Rowland Water District across the following:

- Association of California Water Agencies (ACWA) Region 8 Board Member; ACWA is a statewide industry group that monitors and influences legislation and policies affecting water supply
- ACWA/Joint Powers Insurance Authority Alternate Voting Representative
- Puente Basin Water Agency Board of Commissioners, this commission coordinates and secures supplemental funding for projects that improve regional water quality
- California Municipal Utilities Association (CMUA); this association represents its members' interests on energy and water issues before the California Legislature, the Governor's Office, and regulatory bodies
- San Gabriel Valley Regional Chamber of Commerce Government Affairs Committee Member
- Several LAFCO Committees, including the Special Districts Ad Hoc Committee in the 1990s which was instrumental in establishing the LAFCO Special Districts seat, a seat I have now had the honor of holding as the incumbent voting member.

Continuity at the Commission level produces results. As the sitting voting member, I have developed working relationships with fellow commissioners, county staff, and agency representatives that allow business to move forward efficiently and collaboratively. The institutional memory I hold, from the history of the Special Districts seat itself to the current landscape of service challenges across Los Angeles County, is an asset that reappointment preserves.

I am proud of the record built during my tenure and remain fully committed to the responsibilities this seat carries. I respectfully request reappointment as the Special District Voting Member to LAFCO for the County of Los Angeles and look forward to continuing this important work on behalf of the districts and residents we serve.

AGENDA ITEM NO. 8.A

DATE: April 7, 2026

TO: Board of Directors

FROM: General Manager

SUBJECT: Climate Action and Adaptation Plan (CAAP): Annual Update

---

SUMMARY:

The Climate Action and Adaptation Plan (CAAP) was developed and adopted in October 2023 by both the Las Virgenes Municipal Water District (LVMWD) Board and the Las Virgenes-Triunfo Joint Powers Authority (JPA) to reduce greenhouse gas emissions and improve climate resilience in alignment with California's state goals. The CAAP outlines 110 actions across 22 measures to lower emissions, strengthen infrastructure against climate impacts (including wildfires), diversify water supplies, and maintain eligibility for grants and permits.

Since adoption, five actions have been completed, 51 are underway, 52 have not yet started, and two were deemed infeasible. A key project in 2025 was the substantial completion of one megawatt of solar photovoltaic at the Rancho Las Virgenes Farm Sprayfields. Ongoing efforts include water conservation programs, recycled water reductions, regional water supply partnerships, infrastructure hardening in high fire hazard zones, and development of advanced water purification facilities.

Three new actions were added to diversify and strengthen the District's water supply portfolio, including studying alternative supplies, evaluating the feasibility of seawater desalination, and securing groundwater storage agreements with the latter completed.

Staff is requesting Board feedback on continued CAAP implementation, including authorization to initiate studies for potential additional solar photovoltaic projects—such as floating solar at Las Virgenes Reservoir and solar installations at District Headquarters—to reduce long-term energy costs and greenhouse gas emissions.

RECOMMENDATION(S):

Receive the Climate Action and Adaptation Plan Annual Update and provide feedback on continued implementation including activities associated with Action Items I-1.2 and I-1.3.

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

There is no financial impact associated with this CAAP annual update.

DISCUSSION:

The State of California has enacted legislation over the past several years that aims to reduce greenhouse gas emissions to mitigate the effects of climate change. Signed into law by Governor Brown in 2016, Senate Bill (SB) 32 established a requirement to reduce statewide GHG emissions by 40% below 1990 levels by the year 2030. Executive Order (EO) B-55-18 set a longer-term target to achieve carbon neutrality by the year 2045. While the District is not directly required to meet these targets, the District should do its part to limit its carbon footprint, while simultaneously preparing for the effects of climate change that lie ahead. Future legislation and regulations may also set mandates on water and wastewater utilities because the conveyance and treatment of water accounts for a large percentage of energy demands. Additionally, most grant and low-interest loan programs now require applicants to have an adopted CAAP to be eligible and competitive for funding. The development and active implementation of CAAP will ensure that the District remains competitive for grant and low interest loans, particularly those for the Pure Water Project Las Virgenes-Triunfo. A CAAP was also necessary to renew the NPDES Permit for discharges to Malibu Creek.

On January 9, 2023, the JPA authorized the Administering Agent/General Manager to execute a professional services agreement with Rincon Consultants, Inc. for development of a Climate Action and Adaptation Plan (CAAP). Since that time, a CAAP was developed and adopted by both the JPA and LVMWD Boards. The CAAP provides a roadmap for reducing greenhouse gas (GHG) emissions in alignment with State goals. It also provides guidance for increasing the resilience of critical facilities, infrastructure, services, and resources to climate change impacts, including but not limited to wildfires. LVMWD-only facilities and operations primarily consist of those associated with the drinking water system, including pump stations and the Westlake Filtration Plant. The CAAP also incorporates JPA facilities and operations.

On October 3, 2023, the Board was presented with a final CAAP, at which time Resolution No. 2627 adopting the 2023 CAAP, was approved. On October 2, the JPA had also adopted the CAAP via Resolution No. 32 for elements of the Plan that pertain to JPA facilities and operations. The Plan requires that progress reports be provided to the Board of Directors for both LVMWD and the JPA on an annual basis. A copy of the CAAP and a matrix that provides the status of implementation measures and actions is attached.

The matrix includes a list of 22 different “measures” or categories and 110 distinct actions that fall within the measures, which were identified in the CAAP. Three new items have been added since the time of the last update. Included is a brief description of each action along with the status, scheduled start, scheduled completion, assigned lead person, and notes for each action. To date, five were completed, 51 actions have been started or substantially completed, and 52 have not been started. Two items have been deemed impractical or infeasible to pursue and therefore not being further considered for implementation.

Items completed in 2025 since the last report include:

- Action I-1.1 Install one Megawatt of solar photovoltaic at the Rancho Las Virgenes

Farm Sprayfields by 2025.

Actions that have started and/or where significant progress is being made include but are not limited to:

- Action O-5.1 Continue water conservation and recycling efforts and programs by implementing the Potable Master Plan, Integrated Regional Water Management Plan, Recycled Water Master Plan, Urban Water Management Plan, Water Shortage Contingency Plan, and Flow Restrictor Program.

- Action O-5.3 Continue to reduce recycled water use for irrigation by 25 percent and potable water by 20 percent by 2030 compared to 2020 consumption levels.

- Action O-5.12 Update rates and modify fixed fees as needed so that the majority of fixed costs for water and wastewater services continue to be captured regardless of the amount of water consumption and wastewater collection and treatment.

- Action O-7.2 Continue partnering with Calleguas Municipal Water District and LAWDP to improve connectivity with Metropolitan Water District's Colorado River Aqueduct (CRA) system via the East-West Feeder, Sepulveda Pass and other opportunities.

- Action I-9.1 Conduct an assessment to identify opportunities to upgrade or add field instrumentation hardware including sensors, actuators, relays, control units, and samplers such as for automatic leak detection throughout the distribution system. Utilize artificial intelligence (AI) and machine learning (ML) to automate SCADA data collection and analysis to provide additional operational improvements and achieve energy efficiency.

- Action I-11.1 Continue with efforts to partner with a design/build team to design, construct, test, commission, and obtain governmental approval for the Advanced Water Purification Facility.

- Action NR-4.4 Conduct hardening upgrades to structures and facilities (i.e., reservoirs, pump structures, treatment facilities, and administrative offices) that are in CAL FIRE High and Very High Fire Hazard Severity Zones.

- Action I-8.1 Partner with neighboring jurisdictions to identify opportunities to develop dry and wet weather diversions to reduce imported water.

Three new action items have been added, bringing the total number of actions in the CAAP from 107 to 110. Action O-7.5 through O-7.7 were added to the CAAP and will be included in future updates as follows:

- Action O-7.5 Study and produce a report that identifies and recommends alternative water supply sources for the purpose of diversifying the District's water supply portfolio to increase resilience to climate change and other natural disasters - (Water Supply Reliability and Diversification Study).

- Action O-7.6 Study the feasibility for implementing sea water desalination (e.g. OceanWell).

- Action O-7.7 Secure an agreement and purchase water that can be stored in a groundwater basin via a third party for use during drought and other emergencies that trigger a water shortage – completed (early 2026).

Most actions that have not been started are slated to commence in the coming year or within the next few years. The timing is based on prioritizing individual actions, completing prerequisite actions, or the availability of staff and/or financial resources. The matrix reflects a collaborative effort with CAAP Committee Members, which consists of LVMWD staff from various departments and divisions that play a role in the implementation of the CAAP.

At this time, staff is seeking confirmation on whether to continue pursuing specific items identified in the CAAP. This includes items associated with installing more solar photovoltaic systems, including floating solar at Las Virgenes Reservoir - Action Items I-1.2 through I-1.5. Over the course of the past year, incentives for solar panel installations and the savings that can be achieved have been substantially reduced or eliminated. However, despite these changes, there could still be substantial savings over time that could ultimately help to keep electrical costs down for the District, which would translate to keeping rates as low as possible for customers.

For this reason, staff is recommending pursuing Items I-1.2 and I-1.3 in 2026. Item I-1.2 would primarily focus on floating solar or a ground mounted alternative at Las Virgenes Reservoir that could eventually save the District and/or JPA millions of dollars in electricity costs over the 25 plus year life of the solar installation. Item I-1.3 would consist of studying the installation of a fixed parking canopy-style photovoltaic system behind Building No. 7 and/or roof mounted panels on one or more buildings at the District Headquarters. The electricity generated from this system would be intended to partially or completely offset costs to provide power for existing and future electricity demands at District Headquarters, including the addition of more electric fleet vehicles over time.

Not only could these projects reduce operational costs for the District, but they would also play a role in reducing greenhouse gas emissions. At this time, only studies will be conducted, and a report will be brought back to the Board along with a recommendation about whether to proceed with installations at a later date. The cost associated with these studies is anticipated to be within the General Manager's authority.

GOALS:

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

Prepared by: Joe McDermott, PE, Assistant General Manager

ATTACHMENTS:
Annual Update for Climate Action and Adaptation Plan
Climate Action and Adaptation Plan

Climate Action and Adaptation Plan (CAAP)
Status of Implementation Measures and Actions for 2026

	Measure	Action Item #	Description	Status	Scheduled Start	Scheduled Completion	Assigned Lead	Notes
1	**MEASURE I-1:** Utilize carbon-free electricity for 100% of electricity needs by 2030.	Action I-1.1	Install 1 MW of solar PV at Rancho Sprayfield by 2025.	Completed	Started	2025	Korkosz, Jim	*Construction substantially completed as of December 31, 2025 - production anticipated starting February 2026*
2	**MEASURE I-1:** Utilize carbon-free electricity for 100% of electricity needs by 2030.	Action I-1.2	Conduct a feasibility study to understand the potential for installing up to 15 megawatt (MW) of floating solar photovoltaics at Las Virgenes Reservoir, including potential costs, payback periods, and resilience impacts.	Not Started	2025/2026	2027	McDermott, Joe	*Modify and expand scope to analyze potential costs and savings for installing photovoltaic and/or batteries at Las Virgenes Reservoir (floating, stationary on land, rooftop on Westlake Filtration Plant Building, PPA vs. owned, etc.)*
3	**MEASURE I-1:** Utilize carbon-free electricity for 100% of electricity needs by 2030.	Action I-1.3	Conduct an assessment to identify the solar capacity needed to support the addi-tional electricity demand for vehicle fleet and employee commuter fleet EV adoption.	Not Started	2026/2027	2027	Korkosz, Jim	*Modify and expand scope to analyze potential costs and savings for installing photovoltaic and/or batteries at District Headquarters (parking canopy structures, rooftops, PPA vs. owned, etc.)*
4	**MEASURE I-1:** Utilize carbon-free electricity for 100% of electricity needs by 2030.	Action I-1.4	Identify partners to assess and pursue floating solar photovoltaics, such as firms that specialize in power purchase agreements (PPA) and SCE. Work with partners to pursue funding opportunities and tax credits for the installation of floating solar photovoltaics such as opportunities through the Department of Energy (DOE) Solar Energy Technologies Office (SETO and the federal Investment Tax Credit and Production Tax Credit.	Not Started	2025/2026	2027	McDermott, Joe	*Coordinate with I-1.2.*
5	**MEASURE I-1:** Utilize carbon-free electricity for 100% of electricity needs by 2030.	Action I-1.5	Based on the results of the studies and if deemed feasible, install up to 15 MW of floating solar photovoltaics at Las Virgenes Reservoir and additional on-site solar generation.	Not Started	2028	2030	McDermott, Joe	*Coordinate with I-1.2 If feasible, start by 2028 and complete by 2030.*
6	**MEASURE I-1:** Utilize carbon-free electricity for 100% of electricity needs by 2030.	Action I-1.6	Incorporate design elements into the Pure Water Project Las Virgenes – Triunfo to minimize GHG emissions to the greatest extent feasible. This should include energy efficient processes, identification of alternative fuels or technologies for processes that cannot be electrified, developing the project to be electricity ready where feasible, opportunities to directly link to on-site renewables and battery storage, and identification of the energy source to offset indirect electricity emissions, such as using the Renewable Energy Self-Generation Bill Credit Transfer (RES-BCT) tariff for renewable energy generation from other District sites where on-site renewables will not offset the emissions.	Started	Started	On-going	Slosser, Oliver	*Energy efficient processes, cool roof and solar panels for the Advanced Water Purification Facility are being incorporated into the design. Off-site floating solar panels are being considered, see I-1.2. A backup diesel generator is being incorporated into the design that will use a bio diesel blend. Battery storage is not being considered due to infeasibility.*
7	**MEASURE I-1:** Utilize carbon-free electricity for 100% of electricity needs by 2030.	Action I-1.7	Identify if the JPA/LVMWD can source electricity from Clean Power Alliance (CPA) and conduct an annual return on investment (ROI) analysis of carbon-free electricity packages available from SCE and CPA to determine which would be more cost-effective. Analysis should include a cost evaluation of switching all electricity accounts to 100 percent carbon-free electricity to ensure electricity consumption not covered by on-site solar will be 100 percent carbon-free.	Not Started	2026/2027	2030	Korkosz, Jim	*Tentatively scheduled to conduct analysis in 2026/2027 after electricity demands for the AWPF are determined.SCE will provide a spreadsheet to compare. Initiallty the cost will increase 30%.*
8	**MEASURE I-1:** Utilize carbon-free electricity for 100% of electricity needs by 2030.	Action I-1.8	Depending on the results of the ROI analysis and if deemed feasible, switch some or all electricity accounts to 100 percent carbon-free electricity from with SCE “Green Rate” or to a CPA “100% Green Power”.	Not Started	2026/2027	2030	Korkosz, Jim	*To be pursued if feasible after analysis is conducted in 2026/2027.*
9	**MEASURE I-1:** Utilize carbon-free electricity for 100% of electricity needs by 2030.	Action I-1.9	Conduct a study to identify what amount of pumping that can be scheduled utilizing a high level of renewable energy and offset the remaining amount with battery stored solar energy.	Not Started	2026/2027	2028	Korkosz, Jim	*Tentatively scheduled to conduct study in 2026/2027 in coordination with I-1.7.*
10	**MEASURE I-10:** Require the incorporation and identification of mitigation and adaptation features into new capital projects.	Action I-10.1	Develop a process to prioritize when to apply and implement climate change-in-formed design criteria for flooding, extreme heat, landslides, wildfire and liquefaction.	Not Started	2026	2026	McDermott, Joe	
11	**MEASURE I-10:** Require the incorporation and identification of mitigation and adaptation features into new capital projects.	Action I-10.2	Integrate and regularly update best available climate science and projections into relevant planning documents and pro-grams including the Urban Water Management Plan, Infrastructure Investment Plan, Hazard Mitigation Plan, Potable Water Master Plan, Recycled Water Mast Plan, Integrated Master Plan, and Sanitation Master Plan.	Started	On-going	On-going	All	*Discussion topics are included/considered in the early project phases when developing the scope of work for studies, planning, design and CIP related activities related to District facilities and infrastructure*
12	**MEASURE I-10:** Require the incorporation and identification of mitigation and adaptation features into new capital projects.	Action I-10.3	Develop protocols to improve monitoring capabilities to ensure ongoing iden-tification of vulnerable critical District assets in need of upgrades or retrofits.	Not Started	2026	2027	McDermott, Joe	
13	**MEASURE I-11:** Implement the Pure Water Project Las Virgenes-Triunfo.	Action I-11.1	Continue with efforts to partner with a design/build team to design, construct, test, commission, and obtain gov-ernmental approval for the Advanced Water Purification Facility.	Started	On-going	2029	Slosser, Oliver	*60% complete with design efforts to date - construction slated to start in early 2026*
14	**MEASURE I-11:** Implement the Pure Water Project Las Virgenes-Triunfo.	Action I-11.2	Require the consultant team to review and integrate future climate projections and potential impacts into the design of the Advanced Water Purification Facility.	Started	On-going	2029	Slosser, Oliver	on schedule

15	**MEASURE I-11:** Implement the Pure Water Project Las Virgenes-Triunfo.	Action I-11.3	Obtain funding for additional advising services to study and mitigate climate risks and GHG emissions specifically to the Pure Water Project Las Virgenes - Triunfo, through the EPA's Water Infrastructure Finance and Innovation Act, State of California's Clean Water and Drinking Water State Revolving Fund (SRF) programs, and Metropolitan's Local Resources Program (LRP).	Not Started	2026/2027	2027	McDermott, Joe	*Coorindate with I-1.2. Funding source lkely not through the listed programs.*
16	**MEASURE I-11:** Implement the Pure Water Project Las Virgenes-Triunfo.	Action I-11.4	Conduct a feasibility study to identify the future energy needs of the Pure Water Project Las Virgenes – Triunfo and identify opportunities to minimize GHG emissions through energy effi-ciency, on-site renewables, and low-carbon and carbon-free electricity procurement.	Not Started	2026/2027	2027	McDermott, Joe	*Coordinate with I-1.2.*
17	**MEASURE I-2:** Electrify new and existing stationary equipment to reduce natural gas consumption 75% by 2030 and 100% by 2045.	Action I-2.1	Conduct a survey of existing natural gas operated equipment and identify operationally and financially viable electric alternatives. By 2025, establish a schedule to replace existing natural gas-consuming equipment with electric or carbon neutral alternatives (i.e., e-fuels).	Not Started	2026	2026	Korkosz, Jim	*There are two natural gas engines at Cornell Pump Station that are utilized very infrequently (during power outages) and insufficient space to accommodate a backup emergency generator or battery storage. Staff will conduct a survey and develop a schedule in 2026 to replace equipment in future years.*
18	**MEASURE I-2:** Electrify new and existing stationary equipment to reduce natural gas consumption 75% by 2030 and 100% by 2045.	Action I-2.2	Develop and implement a policy requiring new equipment to be electric or carbon neutral. Require an infeasibility waiver to be submitted and approved when new equipment cannot be electrified. The infeasibility waiver process shall identify other opportunities to decarbonize the new stationary equipment (e.g., use of renewable diesel/e-fuel).	Not Started	2026	2026	Korkosz, Jim	*Coordinate with I-2.1.*
19	**MEASURE I-2:** Electrify new and existing stationary equipment to reduce natural gas consumption 75% by 2030 and 100% by 2045.	Action I-2.3	Explore rebate, grant, or partnership opportunities to fund the replacement of natural gas-consuming equipment like HVAC and hot water heaters with electric-powered equivalents like heat pumps.	Not Started	2026	2045	Korkosz, Jim	*Coordinate with I-2.1.*
20	**MEASURE I-2:** Electrify new and existing stationary equipment to reduce natural gas consumption 75% by 2030 and 100% by 2045.	Action I-2.4	Educate staff of the electrification requirement and implement the schedule to replace non-emergency use natural gas-consuming equipment with electric-powered equivalents to reduce natural gas consumption.	Not Started	2026	2045	Korkosz, Jim	*Coordinate with I-2.1.*
21	**MEASURE I-3:** Utilize renewable diesel and alternative fuels to bridge the technology gap and decarbonize stationary equipment to reduce diesel consumption by stationary equipment 100% by 2030.	Action I-3.1	Conduct a feasibility study to assess opportunities to decarbonize LVMWD's and the JPA's existing back-up generators using drop-in renewable diesel. As part of the assessment, determine a timeline for the renewable diesel transition, the quantity of renewable diesel needed, and any additional costs incurred from the transition. Include potential impacts of new renewable diesel equipment.	Not Started	2025	2026	Engineering	*Study as described unnecessary. All back-up generators are currently running on a bio-diesel blend. Currently investigating the feasibility of a higher bio-diesel blend ratio.*
22	**MEASURE I-3:** Utilize renewable diesel and alternative fuels to bridge the technology gap and decarbonize stationary equipment to reduce diesel consumption by stationary equipment 100% by 2030.	Action I-3.2	Identify partners for a reliable source of renewable diesel and fuel (e.g., Diamond Green Diesel).	Not Started	2025	2026	Korkosz, Jim	*Coordinate with I-3.1*
23	**MEASURE I-3:** Utilize renewable diesel and alternative fuels to bridge the technology gap and decarbonize stationary equipment to reduce diesel consumption by stationary equipment 100% by 2030.	Action I-3.3	Based on the feasibility study, develop a policy to transition all generators to renewable fuels.	Not Started	2026	2026	Korkosz, Jim	*Coordinate with I-3.1*
24	**MEASURE I-3:** Utilize renewable diesel and alternative fuels to bridge the technology gap and decarbonize stationary equipment to reduce diesel consumption by stationary equipment 100% by 2030.	Action I-3.4	Develop and distribute educa-tional materials to relevant staff members on the renewable diesel policy requirement and associated air quality and health benefits of the transition outlines in Action I-3.3.	Not Started	2026	2026	Korkosz, Jim	*Coordinate with I-3.1*
25	**MEASURE I-3:** Utilize renewable diesel and alternative fuels to bridge the technology gap and decarbonize stationary equipment to reduce diesel consumption by stationary equipment 100% by 2030.	Action I-3.5	Pursue and monetize LCFS credits associated with renewable fuel conversions in vehicles.	Not Started	2026	2026	Korkosz, Jim	*Coordinate with I-3.1*
26	**MEASURE I-4:** Increase energy storage at LVWMD and JPA facilities and buildings.	Action I-4.1	Conduct an assessment to identify existing battery storage capacity and priority locations for battery storage installation.	Not Started	2026/2027	2026/2027	Korkosz, Jim	
27	**MEASURE I-4:** Increase energy storage at LVWMD and JPA facilities and buildings.	Action I-4.2	Conduct a feasibility study to evaluate the opportunities for charging on-site batteries with on-site solar. Based on the study, require the design of the Pure Water Project Las Virgenes – Triunfo to identify battery storage solutions to mitigate impacts from power outages in addition to back-up generators powered by renewable fuel.	Not Started	2026/2027	2026/2027	Korkosz, Jim	*Deleting requirement for AWPF. Running the AWPF continuously and during occassional power outages has been deemed unecessary.*
28	**MEASURE I-4:** Increase energy storage at LVWMD and JPA facilities and buildings.	Action I-4.3	Explore funding opportunities to obtain and install a combined total of 5 MW battery storage at critical facilities. Identify opportunities through the Inflation Reduction Act of 2022 incentives including Energy Infrastructure Reinvestment Financing and the Solar Investment Tax Credit.	Not Started	2026/2027	2026/2027	Korkosz, Jim	*To be pursued after completion of I-4.2.*
29	**MEASURE I-4:** Increase energy storage at LVWMD and JPA facilities and buildings.	Action I-4.4	Continue time of use program that identifies and establishes permanent shifts of high-electricity use to times when renewable energy is plentiful through educational programs on energy and thermal storage, load timing/controls, pre-cooling/pre-heating, and other time-energy demand measures.	Started	On-going	2045	Korkosz, Jim	*On-going*

30	**MEASURE I-5:** Improve energy efficiency at LVMWD and JPA facilities and buildings.	Action I-5.1	Identify aging equipment due for replacement throughout JPA and LVMWD facilities and identify energy efficient alter-natives to use for the replacement (e.g., EnergyStar certifications). Prioritize energy efficient electric equipment over natural gas and diesel equipment, where feasible. Include a return on an investment analysis as part of the replacement process that evaluates the capital investment for an energy efficient alternative piece of equipment, cost savings associated with improved energy efficiency, and identifies any grants or rebates associated with such equipment replacement. For equipment iden-tified in Action I-2.2 that received the infeasibility waiver, ensure energy efficiency alternatives are selected.	Not Started	2026/2027	2026/2027	Korkosz, Jim	*Assessment tentatively scheduled for 2026/2027.*
31	**MEASURE I-5:** Improve energy efficiency at LVMWD and JPA facilities and buildings.	Action I-5.2	Develop and implement a policy requiring new equipment to achieve EnergyStar Certification, where feasible.	Not Started	2026/2027	2026/2027	Korkosz, Jim	
32	**MEASURE I-5:** Improve energy efficiency at LVMWD and JPA facilities and buildings.	Action I-5.3	Conduct energy audits every 5 years and implement top energy recommenda-tions. As part of CAAP monitoring, track energy improvements due to implementation of energy audit recommendations annually.	Not Started	2026/2027	2026/2027	Korkosz, Jim	*Coordinate with I-5.1*
33	**MEASURE I-5:** Improve energy efficiency at LVMWD and JPA facilities and buildings.	Action I-5.4	Expand the utilization of automated lighting controls for indoor/outdoor lighting for JPA and LVMWD facilities pursuant to the current CEC Building Energy Efficiency Standards (Title 24, Part 6 and 11).	Started	On-going	2045	Korkosz, Jim	*Most facilities have been convertedto LED already.*
34	**MEASURE I-5:** Improve energy efficiency at LVMWD and JPA facilities and buildings.	Action I-5.5	Pursuant to the CEC 2022 Building Energy Efficiency Standards (Title 24, Part 6 and 11), require all new construction and building upgrades utilize light emitting diode (LED) lighting technology only.	Started	2026/2027	On-going	Korkosz, Jim	*To be integrated into policy under I-5.2*
35	**MEASURE I-5:** Improve energy efficiency at LVMWD and JPA facilities and buildings.	Action I-5.6	Continue to explore opportunities to employ artificial intelligence (AI) and machine learning (ML) to better optimize treatment processes and to increase energy efficiency.	Started	On-going	On-going	Korkosz, Jim	
36	**MEASURE I-5:** Improve energy efficiency at LVMWD and JPA facilities and buildings.	Action I-5.7	Require the implementation of cool roofs in the construction of all new and upgraded JPA and LVMWD facilities, to minimize absorption of solar energy and reduce building energy use.	Started	On-going	On-going	Korkosz, Jim	*Incorporating into the design for the Advanced Water Purification Facility. Incorporated into roof replacement for Headquarters Building #1.*
37	**MEASURE I-6:** Reduce process and fugitive GHG emissions associated with wastewater treatment.	Action I-6.1	Conduct a feasibility and cost analysis on the pathways to eliminate emissions associated with the biogas generated at Tapia Water Reclamation Facility through either biogas utilization, disposal or sale. The study should include an assessment evaluating the cost for upgrading the anaerobic digesters, opportunities for upgrading the biogas to pipeline quality biomethane, and opportunities for partnerships with other nearby biogas producers to sell the biogas to entities such as SCG looking to meet SB 1440.	Not Started	2030+	2045	Hurtado, Veronica	*Currently pursuing adding an enclosed low-emissions flare with hydrogen sulfide (H2S) scrubbing vessels to dispose of methane and address H2S emissions. This is a much more economically feasible solution in the near term. Will tentatively schedule a study for a longer-term solution after 2030.*
38	**MEASURE I-6:** Reduce process and fugitive GHG emissions associated with wastewater treatment.	Action I-6.2	Investigate potential partnerships with entities looking to obtain biogas for fuel production for which LVMWD and the JPA could be a source.	Not Started	2030+	2045	Hurtado, Veronica	*To coincide with schedule for I-6.1*
39	**MEASURE I-6:** Reduce process and fugitive GHG emissions associated with wastewater treatment.	Action I-6.3	In alignment with the implemen-tation of the Pure Water Project Las Virgenes - Triunfo, evaluate and track reductions in total Nitrogen to identify the amount of reduced fugitive emissions.	Not Started	2028/2029	On-going	Hurtado, Veronica	*Initiate after commissioning Advanced Water Purification Facility in 2028/2029*
40	**MEASURE I-7:** Maximize backup power facilities for all critical assets.	Action I-7.1	Catalogue fixed and mobile backup power requirements for all LVMWD and JPA facilities and develop design criteria/minimum requirements.	Substantially Completed	2025	2026	Korkosz, Jim	*This effort was substantially completed and a formalized document is currently being developed.*
41	**MEASURE I-7:** Maximize backup power facilities for all critical assets.	Action I-7.2	Establish backup power policy/requirements that cover fixed and mobile solutions, staging, and procurement.	Started	2025	2026	Korkosz, Jim	*Started. To coincide with schedule for I-7.1.*
42	**MEASURE I-7:** Maximize backup power facilities for all critical assets.	Action I-7.3	Secure Hazard Mitigation Grant Program, California Governor's Office of Emergency Services (CAL OES), and other grant funding for battery energy storage solutions and renewable diesel.	Not Started	2028	On-going	Korkosz, Jim	*To be pursued after completion of I-3.1 and I-4.2*
43	**MEASURE I-7:** Maximize backup power facilities for all critical assets.	Action I-7.4	If deemed feasible, secure battery energy storage systems and new generators that use renewable fuel (e.g., renewable diesel, biodiesel, etc.) for Tapia Reclamation Facility, the Westlake Filtration Plant, Rancho Composting Facility, and future facilities such as the Advanced Water Purification Facility.	Not Started	2028	On-going	Korkosz, Jim	*To be pursued after completion of I-3.1 and I-4.2*
44	**MEASURE I-8:** Support the regional development of dry and wet weather stormwater diversions as a supplementary source for recycled potable water.	Action I-8.1	Partner with neighboring jurisdictions to identify opportunities to develop dry and wet weather diversions to reduce imported water.	Started	On-going	On-going	Hurtado, Veronica	*Currently working with the City of Agoura Hills on a pilot program and began conversations with the City of Thousand Oaks. Phase III of a whitepaper study is also underway in collaboration with LA County Sanitation, LA Flood Control District, Metropolitan Water District, Inland Empire Utilities Agency, City of Los Angeles, City of Santa Monica, Dept. of Public Works, with JACOBS as the consulting agency developing the study and pilot programs.*
45	**MEASURE I-8:** Support the regional development of dry and wet weather stormwater diversions as a supplementary source for recycled potable water.	Action I-8.2	Position for funding programs, such as LA County Measure W, to fund design work to increase dry and wet weather diversions.	Started	On-going	On-going	s, Craig/Jessica Forte	*Submitted multiple applications in July 2024 as study collaborators for grant funding to investigate dry weather diversions and the feasibility of large scale, distributed stormwater capture and storage program. M6 was chosen/awarded Measure W funding from NSMB subregion to move forward with dry weather diversion scientific study- Jessica Forte - Engineering will be Lead*

46	**MEASURE I-8:** Support the regional development of dry and wet weather stormwater diversions as a supplementary source for recycled potable water.	Action I-8.3	Conduct an assessment to identify developing regulatory compliance issues asso-ciated with wet weather diversions and outline potential solutions.	Started	On-going	On-going	Hurtado, Veronica	
47	**MEASURE I-9:** Improve the Supervisory Control and Data Acquisition (SCADA) System.	Action I-9.1	Conduct an assessment to identify opportunities to upgrade or add field instrumentation hardware including sensors, actuators, relays, control units, and samplers such as for automatic leak detection throughout the distribution system. Utilize artificial intelligence (AI) and machine learning (ML) to automate SCADA data collection and analysis to provide additional operational improvements and achieve energy efficiency.	Started	On-going	On-going	Nkwenji, Ivo	*Staff has upgraded the SCADA systems at Tapia and Rancho with the latest controls and Human Machine Interfaces (HMI). The Tapia Reclamation Facility's data has been incorporated into the District's iGreen Water Data Management platform (iGreen). This platform, among other functionalities, provides the ability to analyze energy consumption along with the use of AI, ML, and Large Language Models (LLM). Plans to upgrade the Potable Water Distribution and Water Treatment SCADA systems are underway, with completion slated for 2026. Other enhancements will be on-going.*
48	**MEASURE I-9:** Improve the Supervisory Control and Data Acquisition (SCADA) System.	Action I-9.2	Based on the assessment, procure field instrumentation hardware to adequately monitor and control all water system processes.	Started	On-going	On-going	Nkwenji, Ivo	*IT and Facilities staff will continue to evaluate and implement field instrumentation as necessary. This is an on-going effort.*
49	**MEASURE I-9:** Improve the Supervisory Control and Data Acquisition (SCADA) System.	Action I-9.3	Explore potential funding oppor-tunities to finance SCADA system upgrades and improvements.	Started	On-going	On-going	Nkwenji, Ivo	*None identified to date.*
50	**MEASURE I-9:** Improve the Supervisory Control and Data Acquisition (SCADA) System.	Action I-9.4	Establish procedures to regularly conduct maintenance of SCADA systems to identify potential improvements and operational inefficiencies.	Completed	Completed	Completed	Nkwenji, Ivo	*The District's Technology Master Plan assessed the SCADA system and provided a roadmap for personnel and system improvements.Technology Master Plan Report was presented to the board in 2025.*
51	**MEASURE I-9:** Improve the Supervisory Control and Data Acquisition (SCADA) System.	Action I-9.5	Implement setpoint optimization techniques using AI and ML at Tapia Water Reclamation Facility, Lift Stations 1 and 2, and Rancho Las Virgenes Composting Facility.	Not Started	2025+	2045	Nkwenji, Ivo	
52	**MEASURE NR-1:** Investigate and implement carbon sequestration opportunities to offset all Water Reclamation Facility fugitive emissions by 2045	Action NR-1.1	Conduct an assessment to identify the potential capacity for planting new trees, identify a timeframe for implementation, outline a management plan for existing trees, and establish a tracking system to assess progress towards an annual benchmark.	Started	2026/2027	2026/2027	Jones, Craig	Initial work is focused on AWPF site mitigation and Woolsey fire impacted asset areas. Focus will continue to be driven by "as need" project basis for tree planting. - Examples: Morrision Tank screening (Woolsey Fire) - replacing burned trees - planting scrub oaks and toyons (natives) to take place Spring/Summer 2026; Twin Lakes Tank screening to mitigate impacts of construction- with Ironwoods is in design phase. Future assessment (2027-28) will look at optimal district sites/assets that have existing/available irrigation for optimal establishment.
53	**MEASURE NR-1:** Investigate and implement carbon sequestration opportunities to offset all Water Reclamation Facility fugitive emissions by 2045	Action NR-1.2	Partner with TreePeople or other organizations to develop and host an annual employee tree planting day.	Not Started	2026/2027	2026/2027	Jones, Craig	To occur after Measure NR-1.1 - assesment is completed
54	**MEASURE NR-1:** Investigate and implement carbon sequestration opportunities to offset all Water Reclamation Facility fugitive emissions by 2045	Action NR-1.3	Increase carbon sequestration by planting and supporting 25 new trees annually through 2030 to sequester carbon and create shade to reduce heat island effect.	Not Started	2026/2027	2030	Jones, Craig	*90 new trees plus 30 replacement oak trees (120 total) will be planted within the LVMWD service area by 2028 as part of 4:1 replacement requirements for the removal of 30 trees at the Advanced Water Purification Facility site. The timing and location for planting additional trees will be coordinated with NR-1.1 and NR-1.2.*
55	**MEASURE NR-1:** Investigate and implement carbon sequestration opportunities to offset all Water Reclamation Facility fugitive emissions by 2045	Action NR-1.4	Explore grant funding opportunities for tree planting. Identify and apply for applicable federal (e.g., USDA) and state (e.g., California ReLeaf, Affordable Housing and Sustainable Communities Program [AHSC], Urban and Community Forestry Program) available grants for Tree Planting projects.	Not Started	2025	2030	Jones, Craig	*Explore partnership opportunities with SAMO fund and other local partners (2026-2028)*
56	**MEASURE NR-1:** Investigate and implement carbon sequestration opportunities to offset all Water Reclamation Facility fugitive emissions by 2045	Action NR-1.5	As part of the Landscape Transformation Initiative, develop landscape guidance materials that include information regarding flora CO_2 sequestration potential to promote the incorporation of landscape plants that are both climate resilient and CO_2 sequestering. Climate resilient species have characteristics of drought tolerance, low water use, pest and disease resistance, fire-retardant or fire-resistance, and salinity tolerance. Consider vegetative options with higher CO_2 sequestration potential for JPA and LVMWD facilities landscaping.	Started	2024	On-going	Jones, Craig	*Currently exploring grass alternatives that can be incorporated into guidance materials - ongoing!*
57	**MEASURE NR-2:** Catalog and improve the stability of hillside monitoring and stabilization efforts after heavy rain events in areas at risk of landslides and debris flows to minimize impacts to infrastructure and equipment.	Action NR-2.1	Conduct a landslide risk vulnerability assessment of critical assets to identify which assets are most vulnerable to damage from landslides and debris flows.	Started	On-going	On-going	Schlagater, Eric	*Action not required as described. The District actively monitors known landslide and expansive soil areas within the District that have historically caused pipeline failures. We continue to monitor these areas and document these locations to be included when considering infrastructure rehab/replacement as well as consideration of pipeline materials to mitigate against soil instability.*
58	**MEASURE NR-2:** Catalog and improve the stability of hillside monitoring and stabilization efforts after heavy rain events in areas at risk of landslides and debris flows to minimize impacts to infrastructure and equipment.	Action NR-2.2	Install landslide monitoring equipment in landslide susceptibility areas that are adjacent to critical assets.	Started	On-going	On-going	Schlagater, Eric	*This is being done already in one known location and is being monitored to capture trends over time to allow us to proactively respond if necessary to protect our infrastructure. More locations may be added if deemed necessary.*
59	**MEASURE NR-2:** Catalog and improve the stability of hillside monitoring and stabilization efforts after heavy rain events in areas at risk of landslides and debris flows to minimize impacts to infrastructure and equipment.	Action NR-2.3	Based on the vulnerability assessment, conduct hardening upgrades to critical JPA and LVMWD assets that are most vulnerable to damage from landslides and debris flows.	Not Started	2030+	2045	Schlagater, Eric	*Action not required as described. Flooding assessment was conducted for Tapia in 2022. Other facilities not subject to landslides and flooding. Future facilities will be assessed during design.*

60	**MEASURE NR-3:** Protect Las Virgenes Reservoir from sedimentation associated with extreme climate events.	Action NR-3.1	Develop procedures to regularly measure reservoir sedimentation volume to determine the varying rates and patterns of potential storage loss.	Not Started	2026/2027	2028	Johnson, Darrell	
61	**MEASURE NR-3:** Protect Las Virgenes Reservoir from sedimentation associated with extreme climate events.	Action NR-3.2	Implement strategies to mitigate reservoir sedimentation including sediment removal by dredging or flushing.	Not Started	2026/2027	2028	Johnson, Darrell	
62	**MEASURE NR-3:** Protect Las Virgenes Reservoir from sedimentation associated with extreme climate events.	Action NR-3.3	Develop a vegetation and erosion management strategy to mitigate fire risk around Las Virgenes Reservoir to minimize potential post-fire soil erosion impacts on reservoir sedimentation.	Not Started	2026/2027	2028	Johnson, Darrell	
63	**MEASURE NR-3:** Protect Las Virgenes Reservoir from sedimentation associated with extreme climate events.	Action NR-3.4	Increase wastewater treatment capabilities to manage potential future sediment levels from future stormwater, landslide, wildfire, and erosion impacts.	Not Started	2030+	On-going	Hurtado, Veronica	
64	**MEASURE NR-4:** Develop and implement a wildfire abatement and response policy.	Action NR-4.1	In the development of a wildfire abatement and response policy, develop strategies to mitigate risk from wildfire through defensible space, fire-safe landscaping, reduction of structural ignition, fire resistant retrofitting, fire suppression water flow, and vegetation management, in alignment with CAL FIRE guidance, standards, and building codes.	Started	On-going	On-going	Schlagater, Eric	*We have made improvements to firescape the Westlake Filter Plant and as CIP projects are planned we will evaluate opportunities to fire harden existing facilities as well as consider fire hardening when planning new facilities.*
65	**MEASURE NR-4:** Develop and implement a wildfire abatement and response policy.	Action NR-4.2	Develop criteria for future structure and facility developments to reduce vulnerability to ember ignition.	Started	On-going	On-going	Schlagater, Eric	*Started as part of the design development for the Advanced Water Purification Facility. Improvements have been made to Westlake Filtration Plant.*
66	**MEASURE NR-4:** Develop and implement a wildfire abatement and response policy.	Action NR-4.3	Dedicate staff time to identify funding (e.g., CAL FIRE or FEMA) to implement upgrades or retrofits to mitigate wildfire risk.	Started	On-going	On-going	Schlagater, Eric	*We maintain a Hazard Mitigation Plan and update it every 5-years for eligibility for FEMA/Cal-OES funding and have dedicated staff assigned to plan, budget and implement mitigation projects as necessary*
67	**MEASURE NR-4:** Develop and implement a wildfire abatement and response policy.	Action NR-4.4	Conduct hardening upgrades to structures and facilities (i.e., reservoirs, pump structures, treatment facilities, and administrative offices) that are in CAL FIRE High and Very High Fire Hazard Severity Zones.	Started	On-going	On-going	Schlagater, Eric	*Completed fire wise landscape at Westlake Filter Plant in 2025. Awarded a contract to Dudek to study and recommend fire hardening improvements.*
68	**MEASURE NR-4:** Develop and implement a wildfire abatement and response policy.	Action NR-4.5	When retrofits and upgrades are not adequate or feasible, develop plans to relocate critical assets outside of CAL FIRE High and Very High Fire Hazard Severity Zones to the extent practicable.	Delete Action	2026/2027	2028	Schlagater, Eric	*This action has been deemed infeasible since nearly the entire service area is within a High and Very High Fire Hazard Zone.*
69	**MEASURE NR-4:** Develop and implement a wildfire abatement and response policy.	Action NR-4.6	Develop a schedule and monitor vegetative management efforts and defensible space relative to critical assets at risk.	Completed	Completed	Completed	Jones, Craig	*Completed and ongoing with annual brush clearance/weed abatement program. Update schedule as needed. 2025/26 - looking to prioritize and implement fire hardening around district facilities - initiated Phase 1 at HQ.*
70	**MEASURE NR-4:** Develop and implement a wildfire abatement and response policy.	Action NR-4.7	Coordinate with CAL Fire, Los Angeles County Fire Department, and surrounding property owners to ensure adequate fire road access to critical JPA and LVMWD facilities.	Started	On-going	On-going	Johnson, Darrell	Coordination is on-going.
71	**MEASURE O-1:** Electrify or otherwise decarbonize the vehicle fleet such that 75% of the vehicle fleet are zero-emission vehicles (ZEV) by 2030 and 100% of the vehicle fleet are ZEV by 2045.	Action O-1.1	Conduct a study of the existing vehicle fleet to develop a schedule and policy to replace existing vehicles with EV/ZEV alternatives such that 75 percent of vehicles are replaced with EV/ZEV's by 2030 and 100 percent by 2045. Consider vehicle function, associated costs, available incentives, and ROI from potential fuel and maintenance savings when identifying vehicles for replacement and their EV/ZEV alternatives.	Started	2026/2027	2027	Korkosz, Jim	*Began switching F-250 and equivalent trucks to F-150 or equivalent where practicle (not zero emission but better fuel mileage). The large horsepower utility truck market still has not produced a feasible electric version for utility trucks. For example, replacement of an F-250 requires a special order purchase for an electric version at a cost of more than $220k (compared to $60k for a traditional internal combusion enginer truck). Staff is pursuing a waiver for F-250 and larger trucks until such time that a feasible electric version is available.*
72	**MEASURE O-1:** Electrify or otherwise decarbonize the vehicle fleet such that 75% of the vehicle fleet are zero-emission vehicles (ZEV) by 2030 and 100% of the vehicle fleet are ZEV by 2045.	Action O-1.2	For vehicles not identified for replacement by 2030 and/or vehicles that do not have EV/ZEV options available: (a) Evaluate options to reduce the weight of vehicles and integrate technology that monitors vehicle idleness, integrating efficient, smaller diesel engines before they can be electrified or otherwise decarbonized. (b) Consider partnering with heavy-duty EV companies to conduct pilots and facilitate advancements in technology for such vehicles. Not Started. (c) Continue monitoring EV/ZEV availability and updating the vehicle replacement schedule to transition such vehicles by 2045.	(a) Started, (b) Not Started, (c) Started	(a) On-going, (b) 2026/2027, (c) On-going	On-going	Korkosz, Jim	
73	**MEASURE O-1:** Electrify or otherwise decarbonize the vehicle fleet such that 75% of the vehicle fleet are zero-emission vehicles (ZEV) by 2030 and 100% of the vehicle fleet are ZEV by 2045.	Action O-1.3	Complete an EV infrastructure plan to analyze charging needs through 2045 and beyond. As part of plan, create a prioritized list of EV charging/fueling infrastructure at specific locations.	Started	2025	2026/2027	Korkosz, Jim	
74	**MEASURE O-1:** Electrify or otherwise decarbonize the vehicle fleet such that 75% of the vehicle fleet are zero-emission vehicles (ZEV) by 2030 and 100% of the vehicle fleet are ZEV by 2045.	Action O-1.4	Partner with SCE's Charge Ready Program to plan and fund electric vehicle charger installations and panel upgrades at JPA and LVMWD facilities in alignment with the EV infrastructure plan.	Started	2025	2026/2027	Korkosz, Jim	*Completed*
75	**MEASURE O-2:** Increase employee commute ZEV adoption to 25% by 2030 and 50% by 2045.	Action O-2.1	Install 30 additional EV chargers to support at least a 25 percent transition of employee-owned commuter vehicles to EV's or ZEV's (i.e., hydrogen fuel cell) by 2030. Locations should best serve commuters that report to different JPA and LVMWD facilities and optimize use of on-site solar generation.	Not Started	2026	2045	Korkosz, Jim	*As of 2024, there are 4 charging stations at Headquarters, two at Tapia, and currently none at Rancho or Westlake Filtration Plant. An installation schedule will be developed in 2026 and additional installations will be made in the coming years.*

76	**MEASURE O-2:** Increase employee commute ZEV adoption to 25% by 2030 and 50% by 2045.	Action O-2.2	Identify partnerships and funding opportunities such as enrollment in the LCFS program for credit generation, federal tax credit under 30C Alternative Fuel Infrastructure Tax Credit, and SCE rebates and partnerships to offset the costs to install EV charging infrastructure for commuters.	Not Started	2026	2045	Korkosz, Jim	*Coorindate with O-2.1.*
77	**MEASURE O-2:** Increase employee commute ZEV adoption to 25% by 2030 and 50% by 2045.	Action O-2.3	When feasible, incentivize employee conversion to ZEVs by offering discounted vehicle charging or fueling for commuters (charge for electricity only and not capital recovery for charging stations).	Started	On-going	On-going	Korkosz, Jim	*Employees pay for market rate electricity costs only (District covers the capital cost for installing stations).*
78	**MEASURE O-2:** Increase employee commute ZEV adoption to 25% by 2030 and 50% by 2045.	Action O-2.4	Promote employee use of EV's or ZEVs by providing educational materials on the benefits of EV's and ZEVs, available federal and state tax credits, and ROI for employees given ~~free~~ discounted workplace charging.	Not Started	2025	On-going	Korkosz, Jim	*To be implementing prior to installing additional stations*
79	**MEASURE O-3:** Reduce employee commute Vehicle Miles Traveled (VMT) by 15% by 2030 and 30% by 2045.	Action O-3.1	Allow for continued benefits of a full or partial work-from-home policy where employees telecommute or utilize flexible schedule to reduce transit time, VMT, and GHG emissions.	Started	On-going	On-going	Crocker, Sophia	
80	**MEASURE O-3:** Reduce employee commute Vehicle Miles Traveled (VMT) by 15% by 2030 and 30% by 2045.	Action O-3.2	Identify opportunities to fund rideshare incentives to employees who carpool. Offer other incentives to employees to use an alternative mode of transportation to commute (e.g., public transportation, bikes).	Not Started	2025/2026	2027/2028	Crocker, Sophia	*To be evaluated and implemented if deemed feasible.*
81	**MEASURE O-3:** Reduce employee commute Vehicle Miles Traveled (VMT) by 15% by 2030 and 30% by 2045.	Action O-3.3	Provide preferred parking for carpooling vehicles to incentivize carpooling by employees. Evaluate opportunities for other incentives to offer to employees for carpooling or lower VMT.	Delete Action	N/A	N/A	Crocker, Sophia	*Analyzed and deemed impractical. District garage and lots are small and most parking spots are already convenient. No further action required.*
82	**MEASURE O-3:** Reduce employee commute Vehicle Miles Traveled (VMT) by 15% by 2030 and 30% by 2045.	Action O-3.4	Promote employee use of carbon-free and low carbon transportation by providing educational materials on the benefits of commute options including public transportation, EV/ZEV options, and vanpools.	Not Started	2025/2026	2027/2028	Crocker, Sophia	*To be coordinated with O-3.2*
83	**MEASURE O-4:** Develop a net zero waste program such that waste sent to the landfill is reduced by 90% by 2030 and maintain through 2045.	Action O-4.1	Implement a program to separate organic waste from other materials. Contract with local waste disposal companies to route organic waste to food recovery centers, anaerobic digestion, or composting facilities such that 75 percent of organics generated from JPA and LVMWD operations is collected and diverted from the landfill by 2025.	Not Started	2026	2027	Hurtado, Veronica	*Under consideration but not implemented. The District lunchrooms are being considered (Headquarters, Tapia and Rancho), which are the only significant source of organic wastes that would be eligible for the Waste Management Organics Recycling program. Food collections bins could be added, but depending on pick-up schedule, they could become an odor nuisance.*
84	**MEASURE O-4:** Develop a net zero waste program such that waste sent to the landfill is reduced by 90% by 2030 and maintain through 2045.	Action O-4.2	Conduct a waste assessment, including records examinations, facility walk-throughs, and waste sorting, across all facilities to identify waste sources generated, identify purchasing and management practices, examine current waste reduction practices and their effectiveness, and prioritize the most effective waste reduction efforts on an area and materials-focused basis.	Not Started	2026/2027	2026/2027	Hurtado, Veronica	Staff will continue to explore opportunities. None identified yet.
85	**MEASURE O-4:** Develop a net zero waste program such that waste sent to the landfill is reduced by 90% by 2030 and maintain through 2045.	Action O-4.3	Investigate funding opportunities to develop an organics program and deploy organic waste bins at all JPA and LVMWD facilities.	Not Started	2026	2026	Hurtado, Veronica	*To be coordinated with O-4.1*
86	**MEASURE O-4:** Develop a net zero waste program such that waste sent to the landfill is reduced by 90% by 2030 and maintain through 2045.	Action O-4.4	Pursuant to AB 901, report the quantity and destination of disposed biosolids from wastewater treatment plants to CalRecylcle quarterly.	Started	On-going	On-going	Hurtado, Veronica	Biosolids/Compost volumes get reported quarterly to CalRecycle. This began in January 2020.
87	**MEASURE O-4:** Develop a net zero waste program such that waste sent to the landfill is reduced by 90% by 2030 and maintain through 2045.	Action O-4.5	Host staff training sessions to provide educational information on waste reduction practices to increase waste diversion at JPA and LVMWD facilities.	Not Started	2026	2026	Hurtado, Veronica	*To be coordinated with O-4.1*
88	**MEASURE O-5:** Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	Action O-5.1	Continue water conservation and recycling efforts and programs by implementing the Potable Master Plan, Integrated Regional Water Management Plan, Recycled Water Master Plan, Urban Water Management Plan, Water Shortage Contingency Plan, and Flow Restrictor Program.	Started	On-going	On-going	Jones, Craig	*Ongoing - UWMP will be completed June 2026; RC staff working with consultant - to model UWUO regulation impacts and develop strategy/goals/options for maintaining compliance and optimizing conservation program efforts, water loss, etc.*
89	**MEASURE O-5:** Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	Action O-5.10	Explore methods such as the deployment of a floating solar array to reduce the rate of evaporation from water storage facilities (e.g., Las Virgenes Reservoir).	Not Started	2025/2026	2026	McDermott, Joe	*Not Started and will be coordinated with Action Item I-1.2.*
90	**MEASURE O-5:** Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	Action O-5.11	Investigate new advanced tech-nology systems to maximize the ground-water recovery wells in Westlake Village to maintain local water supply. Invest in such technology as it becomes feasible and cost-effective. Consider other innovative ideas such as maximizing the storage potential of the Russel Valley Basin by installing injection wells to store excess water for later extraction.	Not Started	2028/2029	2045	McDermott, Joe	*Not Started. To be pursued in 2028/2029.*
91	**MEASURE O-5:** Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	Action O-5.12	Update rates and modify fixed fees as needed so that the majority of fixed costs for water and wastewater services continue to be captured regardless of the amount of water consumption and wastewater collection and treatment.	Started	On-going	On-going	Patterson, Don	*Implemented in new rates with 2025 Cost of Service Study.*
92	**MEASURE O-5:** Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	Action O-5.2	Implement the Pure Water Project Las Virgenes – Triunfo (Measure I-11) to reduce dependence on imported water and help ensure long-term water supply reliability.	Started	On-going	2030	Slosser, Oliver	*Design efforts nearing completion and construction is pending*

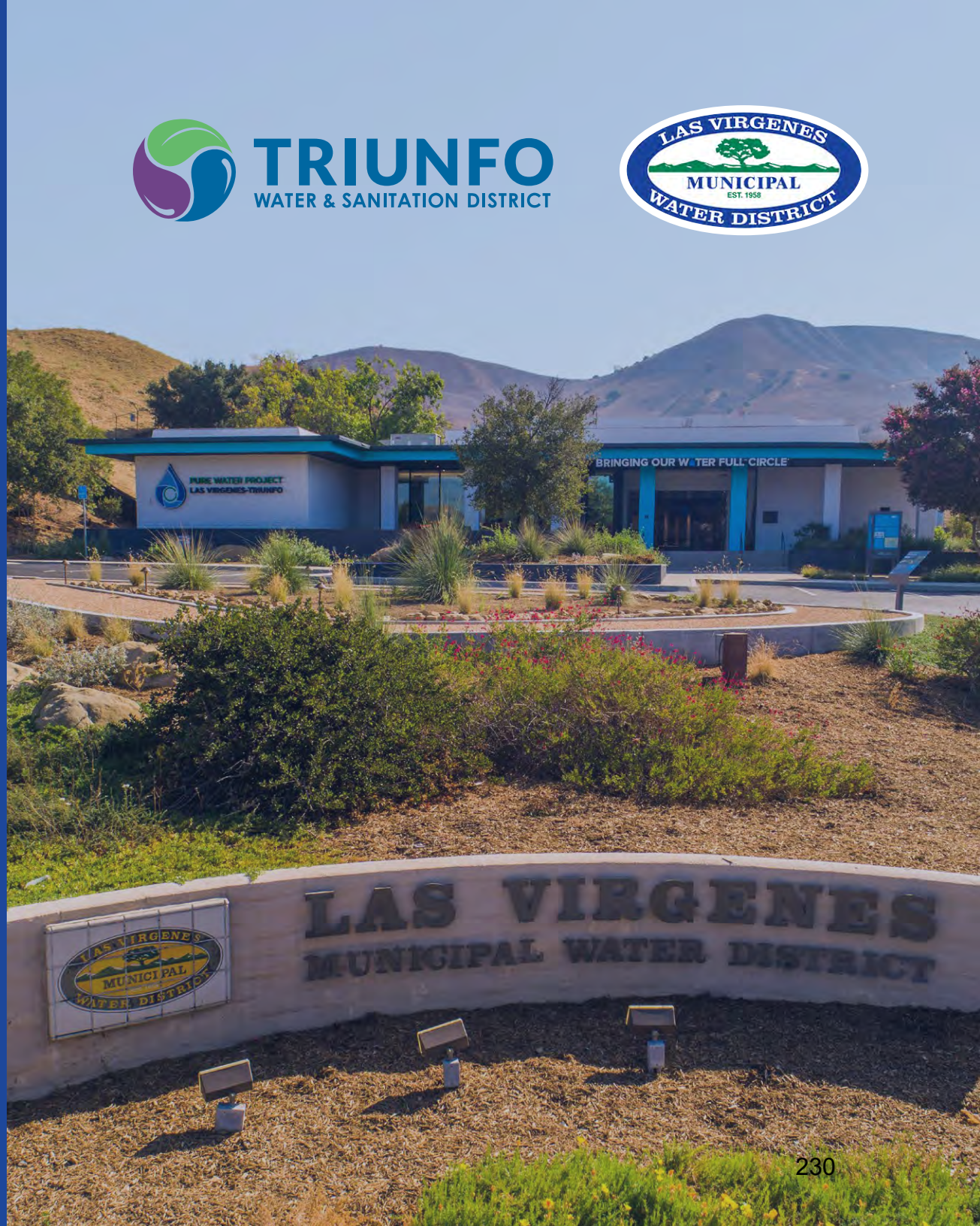
93	**MEASURE O-5:** Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	Action O-5.3	Continue to reduce recycled water use for irrigation by 25 percent and potable water by 20 percent by 2030 compared to 2020 consumption levels.	Started	On-going	On-going	Jones, Craig	*Potable water reduction was 20% in 2025 (meets target). Recycled water reduciton was 23% in 2025. Additional reductions will be necessary to meet new State Mandates. New targets are under development.*
94	**MEASURE O-5:** Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	Action O-5.4	Continue outreach and engagement efforts to increase registration to 80 percent and use of the WaterSmart Portal to aid customers in managing usage and identifying leaks.	Started	On-going	On-going	Bosson, Ursula	*Started and ongoing. Currently at 35.91% registration rate through December, 2025 - up from 33.1% from the end of 2024.*
95	**MEASURE O-5:** Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	Action O-5.5	Expand programs which educate customers on water conservation initiatives through workshops and speaking engagements. Continue to host and expand participation in the LVMWD Landscape Workshop Series providing information on drought-tolerant landscaping, available rebates for water irrigation retrofits, and water efficiency strategies in new and existing single-family residences and commercial/multi-family accounts.	Started	On-going	On-going	Jones, Craig	*Held 11 Public workshops _Sustainable Landscape Workship Series in 2023 and 6 workshops in 2024; 7 workshops in 2025*
96	**MEASURE O-5:** Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	Action O-5.6	Continue with efforts to implement a landscape management plan for the JPA and LVMWD that consolidates and expands upon the goals and policies for landscaping at JPA and LVMWD properties. Identify whether and where there are additional resource-consumptive landscapes on property that can be changed out to more water-conserving, slower growth plants that require less maintenance. Continue to implement potable water conservation strategies in landscape design and maintenance (such as replacing water intensive areas with drought-resilient native plants. using low-flow water fixtures, installing sophisticated irrigation software to control water, investing in systems to monitor pipe leakage, and limiting turf development).	Started	On-going	On-going	Jones, Craig	*Started and ongoing. Landscaping/Firescaping at Westlake Filtration Plant completed Fall 2025. District Landscape Policy developed and implemented. LVMWD Bark Park - butterfly garden - completed 2025 - partnership with City of Calabasas and Malibu Foundation.*
97	**MEASURE O-5:** Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	Action O-5.7	Require new and redeveloped LVMWD/JPA owned properties to be low water use through landscaping with climate appropriate plants, permeable paving, green infrastructure, and incorporating other low-impact development design features to allow for increased infiltration, even in heavy rains.	Started	On-going	On-going	Jones, Craig	*Started and ongoing. Climate Appropriate Landscape Policy – Administrative Handbook complete. Design efforts underway for the landscaping at the Advanced Water Purification Facility are incorporating these requirements. Additionally, incorporating fire hardening design and maintenance into landscapes to protect and harden district facilities from widlfires.*
98	**MEASURE O-5:** Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	Action O-5.8	Continue to implement and expand on successful water conservation rebate programs (e.g., high efficiency toilets and clothes washers, weather-based irrigation controller, etc.) with a focus on providing opportunities for outdoor water efficiency improvements such as rotating sprinkler heads, in alignment with the current Statewide water conservation goals.	Started	On-going	On-going	Jones, Craig	*Started and ongoing. Irrigation Retrofit Pilot Program was launched in September 2023 and completed March 2024. The Full scale Irrigation Retrofit program that includes smart controllers launched in August of 2024 and is on-going. Planning stages underway for launching additional "turf transformation" programs to encourage water efficient landscapes - through design assistance, etc. Yoursmartyard.org launched October 2025 - partnership with Yardzen - offering customers discounted packages for custom landscape design consultations (IRWM DRWCP). Other opportunities to be considered for development and implementation in future years.*
99	**MEASURE O-5:** Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	Action O-5.9	Develop and adopt a schedule for installation of water meters in existing buildings and irrigation zones to establish a water consumption baseline at JPA and LVMWD owned properties with the Facilities Division. Reduce JPA and LVWMD water consumption per capita at facilities in alignment with the current statewide goals.	Not Started	2026/2027	2030	Jones, Craig	*Not Started.*
100	**MEASURE O-6:** Develop resource programs and protocols to protect staff from climate extremes.	Action O-6.1	Develop and distribute a survey to staff to identify climate change impacts that pose health and safety risks to employees. As part of the survey, ask employees which existing policies and programs adequately provide them with resources to mitigate impacts and ask what potential programs and policies may provide additional resources to limit health and safety concerns associated with climate hazards.	Not Started	2026	2026	Crocker, Sophia	
101	**MEASURE O-6:** Develop resource programs and protocols to protect staff from climate extremes.	Action O-6.2	Develop internal protocols for employees working under extreme heat conditions and air quality emergencies, in alignment with Cal/OSHA heat illness and prevention guidance.	Completed	N/A	N/A	Crocker, Sophia	*Update as needed*
102	**MEASURE O-6:** Develop resource programs and protocols to protect staff from climate extremes.	Action O-6.3	Develop protocols for wildfire emergencies and host annual practice/drills to ensure service continuity and employee safety.	Started	On-going	On-going	Crocker, Sophia	*Coordinate with Water Operations Director*
103	**MEASURE O-6:** Develop resource programs and protocols to protect staff from climate extremes.	Action O-6.4	Provide employees with educational materials on relevant climate hazards and associated health and safety impacts (i.e., extreme heat induced health impacts) to increase awareness of risks and share best practices to increase adaptive capacity.	Started	On-going	On-going	Crocker, Sophia	*We currently administer Heat Illness Prevention Training to affected staff.*
104	**MEASURE O-7:** Maximize operational flexibility and redundancies, including new alternative water supplies, water transfer agreements, interties, flexible exchanges, additional system interconnections, and points of delivery.	Action O-7.1	Partner with neighboring water providers, starting with District 29, to develop additional emergency water system interties to ensure water service continuity and reliability.	Started	On-going	2045	McDermott, Joe	*Plans and designs are currently underway for two interties with District 29. Conceptual planning for adding ocean desalination to the water supply portfolio via a connection with District 29 or an in-lieu exchange agreement is also underway.*

105	**MEASURE O-7:** Maximize operational flexibility and redundancies, including new alternative waer supplies, water transfer agreements, interties, flexible exchanges, additional system interconnections, and points of delivery.	Action O-7.2	Continue partnering with Calleguas Municipal Water District and LAWDP to improve connectivity with Metropolitan Water District's Colorado River Aqueduct (CRA) system via the East-West Feeder, Sepulveda Pass and other opportunities.	Started	On-going	2045	McDermott, Joe	*Ongoing. Sepulveda Pass Feeder Phase 1 design/build efforts are underway, which can bolster LVMWD supply by ~700 acre-feet annually during droughts. Continuing to advocate for Sepulveda Pass Feeder Phase 2, which can bolster LVMWD supply by another 2,000 acre-feet per year (2,700 acre-feet total).*
106	**MEASURE O-7:** Maximize operational flexibility and redundancies, including new alternative water supplies, water transfer agreements, interties, flexible exchanges, additional system interconnections, and points of delivery.	Action O-7.3	Continue to coordinate with neighboring jurisdictions to ensure adequate water availability and peak load water supply for fire suppression efforts in alignment with CAL FIRE's recommendations.	Started	On-going	On-going	Johnson, Darrell	*Ongoing. All water storage tanks are "topped off" pending red flag warnings*
107	**MEASURE O-7:** Maximize operational flexibility and redundancies, including new alternative water supplies, water transfer agreements, interties, flexible exchanges, additional system interconnections, and points of delivery.	Action O-7.4	As necessary, increase storage capacity where feasible at water system facilities to prepare for wildfire and drought periods.	Started	On-going	On-going	Johnson, Darrell	*Ongoing. All water storage tanks are "topped off" pending red flag warnings and additional sources of water supply are being explored as part of the Water Supply Reliability and Diversification Study.*
108	**MEASURE O-7:** Maximize operational flexibility and redundancies, including new alternative water supplies, water transfer agreements, interties, flexible exchanges, additional system interconnections, and points of delivery.	Action O-7.5	Study and produce a report that identifies and recommends alternative water supply sources for the purpose of diversifying the District's water supply portfolio to increase resiliency to climate change and other natural disasters - (Water Supply Diversification Study)	Started	2025	2026	McDermott, Joe	*To date, 3 workshops have been conducted with stakeholders and a report is scheduled to be presented to the Board of Directors by summer 2026.*
109	**MEASURE O-7:** Maximize operational flexibility and redundancies, including new alternative water supplies, water transfer agreements, interties, flexible exchanges, additional system interconnections, and points of delivery.	Action O-7.6	Study the feasibility for implementing sea water desalination (e.g. OceanWell)	Started	2024	2026	McDermott, Joe	*The Study for on shore infrastructure improvements has been completed, offshore requirements are being studied, pilot testing in Las Virgenes Reservoir has been completed and a demonstration test in the ocean is scheduled for 2026.*
110	**MEASURE O-7:** Maximize operational flexibility and redundancies, including new alternative water supplies, water transfer agreements, interties, flexible exchanges, additional system interconnections, and points of delivery.	Action O-7.7	Secure an agreement and purchase water that can be stored in a groundwater basin via a third party for use during drought and other emergencies that trigger a water shortage	Completed	2024	2025	Pedersen, David	*The District purchased 6,000 acre-feet of water and storage rights with the ability to extract and deliver up to 850 acre-feet in any single year from a groundwagter basin in Central Valley via an Agreement with Irvine Ranch Water District. Pending completion of the Water Supply Diversification Study, additional water banking may b e desirable.*

Las Virgenes Municipal Water District &
Las Virgenes-Triunfo Joint Powers Authority

Climate Action & Adaptation Plan

September 2023



ACKNOWLEDGMENTS

The CAAP was prepared by a LVMWD project team in partnership with the Triunfo JPA and with support from consultants. The following are specifically acknowledged for their contributions.

LVMWD PROJECT TEAM

Joe McDermott,
Director of Engineering
and External Affairs

John Zhao,
Director of Facilities
and Operations

Craig Jones,
Resource Conservation
Manager

Douglas Anders,
Administrative Services Coordinator

Debbie Rosales,
Financial Analyst

CONSULTANT SUPPORT

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers

Rincon Consultants, Inc.

Kennedy Jenks

Kennedy Jenks

TABLE OF CONTENTS

1. Introduction 1
2. Scientific Context for Climate Change 11
3. Climate Change Vulnerabilities 16
4. GHG Emissions Inventory and Forecast 36
5. Climate Action Targets 47
6. GHG Emissions Reduction and Adaptation Measures ... 51
7. Implementation and Monitoring Strategy 79
A. Appendix 91

Click on this button at the lower-right corner of the document at any time to be redirected back to the Table of Contents: TOC

Figures

Figure 1-1. Water Delivered for Select Years (AF) by LVMWD 4
Figure 1-2. LVMWD/JPA Vicinity Map 5
Figure 1-3. LVMWD and Triunfo JPA Service Areas 6
Figure 1-4. Historical and Forecasted Service Population by LVMWD and TWRF 8
Figure 2-1. Greenhouse Gas Effect and Associated Climate Impacts 12
Figure 2-2. GHG Global Contribution 13
Figure 2-3. Comparison of GHG GWPs 13
Figure 2-4. Atmospheric Carbon Dioxide Levels 14
Figure 3-1. Climate Change Impacts on the Combined (LVMWD and JPA) Service Area 18
Figure 3-2. Fire Hazard Severity Zones and Critical Facilities 20
Figure 3-3. Woolsey Fire and Critical Facilities 21
Figure 3-4. FEMA Flood Zones and Critical Facilities 23
Figure 3-5. Landslide Susceptibility Areas and Critical Facilities 25
Figure 3-6. A Recent History of Drought Conditions in Los Angeles County 26
Figure 3-7. State Water Project Table A Allocations 27
Figure 4-1. LVMWD and JPA GHG Emissions by Scope 37
Figure 4-2. LVMWD and JPA GHG Emissions Inventory by Sector 41
Figure 4-3. LVMWD and JPA GHG Emissions Inventory by Scope 42
Figure 4-4. Historical and Projected Water Demand 44
Figure 4-5. LVMWD and JPA GHG Emissions Forecast 45
Figure 5-1. LVMWD and JPA Forecast and Climate Action Targets 50
Figure 7-1. CAAP Implementation and Monitoring Process 89

Tables

Table 3-1. Wildfire – Climate Risk Matrix Scoring 30
Table 3-2. Extreme Heat – Climate Risk Matrix Scoring 31
Table 3-3. Drought – Climate Risk Matrix Scoring 32
Table 3-4. Flood and Extreme Precipitation – Climate Risk Matrix Scoring 33
Table 3-5. Landslide – Climate Risk Matrix Scoring 34
Table 4-1. LVMWD and JPA 2000 GHG Emissions Inventory 39
Table 4-2. LVMWD and JPA 2012 GHG Emissions Inventory 39
Table 4-3. LVMWD and JPA 2021 GHG Emissions Inventory 40
Table 4-4. LVMWD's 1990 GHG Emissions Back-Cast 43
Table 4-5. LVMWD and JPA GHG Emissions Forecast 46
Table 5-1. LVMWD and JPA Climate Action Targets 49
Table 6-1. GHG Reduction and Adaptation Measures by Sector 52
Table 7-1. Implementation Timeline by CAAP Action 82

ACRONYMS, ABBREVIATIONS, AND GLOSSARY

A list of acronyms, abbreviations, and glossary terms used in the Climate Action and Adaptation Plan.

A

AB – Assembly Bill

Action – The act, policy, or measure that will be implemented and achieved to reduce greenhouse gases and/or increase resilience to climate change.

Adaptation – The process of adjustment to actual or expected climate and its effects, either to minimize harm or exploit beneficial opportunities. In natural systems, human intervention may facilitate adjustment to expected climate.

Anthropogenic – Made by people or resulting from human activities.

Atmosphere – The envelope of gases surrounding the earth. These gases include nitrogen (78.1%), oxygen (20.9%), and argon, helium, GHGs, ozone, and water vapor in trace amounts.

B

BAU – Business-as-Usual Forecast. This forecast estimates emissions into the future if no additional actions were taken.

Biofuels – A renewable fuel source derived from biomass such as algae or animal waste.

C

CAAP – Climate Action and Adaptation Plan

CARB – California Air Resources Board

CCA – Community Choice Aggregation. A CCA is a nonprofit electricity provider.

Carbon dioxide (CO_2) – A gas produced by burning organic compounds containing carbon and by respiration.

Carbon dioxide equivalent (CO_2e) – A metric measure used to directly compare emissions from various GHGs based on their global warming potential conversion factor.

Carbon footprint – The total emissions caused in a year by an individual, event, organization, or product, expressed in carbon dioxide equivalent.

Carbon Neutrality – Achieving a balance between emitting carbon and atmospheric carbon removal.

Cal Recycle – California Department of Resources, Recycling, and Recovery

Cascading Impact – Climate hazard-caused impacts that compromise infrastructure or disrupt critical services (i.e., power supply or water conveyance) broadening the scope of impact past a singular subject to reliant subsystems and populations.

CEQA – The California Environmental Quality Act

Climate – The usual condition of temperature, humidity, atmospheric pressure, wind, rainfall, and other meteorological elements in an area of the earth's surface over a long period of time (typically 30 years or more).

Climate Change – A change in the average conditions – such as temperature and rainfall – in a region over a long period of time.

Climate Driver – An increase in the proportion of greenhouse gases in the atmosphere is the primary human-caused driver source of change to the earth's climate.

Climate Hazard – A dangerous or potentially dangerous condition created by the effects of the local climate.

Co-benefit – The secondary benefits that occur due to implementation of a program, measure or policy.

CPA – Clean Power Alliance. A CCA in the Los Angeles region.

CWC – California Water Commission

D

Decarbonization – The reduction or removal of carbon dioxide.

DWR – California Department of Water Resources

Dry Weather Diversion – A diversion of non-stormwater and stormwater flows from the storm drain system into the sanitary sewer system.

E

EF – Emissions Factor

EO – Executive Order

Electrification – The process of generating power from electricity, and in many contexts, the transition to such power from an earlier power source.

Emissions – The release of a substance (usually a gas when referring to the subject of climate change) into the atmosphere.

EV(s) – Electric Vehicle(s)

F

FEMA – Federal Emergency Management Agency

Fossil fuel – A general term for fuel formed from decayed plants and animals that have been converted to crude oil, coal, natural gas, or heavy oils by exposure to heat and pressure in the earth's crust.

G

Greenhouse gas (GHG) – A gas that absorbs infrared radiation, traps heat in the atmosphere, and contributes to the greenhouse effect.

Greenhouse Effect – A process that occurs when gases in Earth's atmosphere traps the Sun's heat.

GWP – Global Warming Potential – total contribution to global warming resulting from the emission of one unit of that gas relative to one unit of the reference gas, carbon dioxide, which is assigned a value of 1.

H

I

ICLEI – International Council for Local Environmental Initiatives

Impact – Effects on natural and human systems including effects on lives, livelihoods, health, ecosystems, economies, societies, cultures, services, and infrastructure due to the interaction of climate hazards and the vulnerabilities of the system or asset effected.

IPCC – United Nations Intergovernmental Panel on Climate Change – prepares comprehensive Assessment Reports about the stat of scientific, technical and socio-eco nomic knowledge on climate change, its impact and future risks, and options for reducing the rate at which climate change is taking place.

J

JPA – Las Virgenes – Triunfo Joint Powers Authority

K

L

LED – Light-emitting diode

LVMWD – Las Virgenes Municipal Water District

M

Methane (CH_4) – A hydrocarbon that is a greenhouse gas that is produced through anaerobic (without oxygen) decomposition of waste in landfills, wastewater treatment plants, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Metric Ton (MT) – common international measurement for the quantity of greenhouse gas emissions – one metric ton is equal to 2,204.6 pounds or 1.1 short tons.

MT CO_2e – Metric tons of carbon dioxide equivalent is the standard units to measure GHG emissions.

MWD – Metropolitan Water District of Southern California

N

Nitrous oxide (N_2O) – A powerful greenhouse gas with a high global warming potential; major sources of nitrous oxide include soil cultivation practices, especially the use of commercial and organic fertilizers, fossil fuel combustion, nitric acid production, and biomass burning.

O

Offroad Equipment – Any non-stationary device powered by an internal combustion engine or electric motor used primarily off roadways such as agricultural, landscaping or construction equipment.

OPR – California Governor's Office of Planning and Research

P

PSPS – Power Safety Power Shutoffs

PV – Photovoltaic (solar energy)

Q

R

Renewable Diesel – Direct substitute for diesel fuel refined from lower carbon and renewable source material.

RCP – Representative Concentration Pathway

Resilience – The capacity of an entity (an individual a community, an organization, or a natural system) to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience.

S

SB – Senate Bill

SCE – Southern California Edision

Scope – Categorization of GHG-generating activities based on the level of the entity's operational control of the source.

Service population – Residents receiving services

SWP – State Water Project

T

TWSD – Triunfo Water & Sanitation District

TWRF – Tapia Water Reclamation Facility

U

U.S. EPA – United States Environmental Protection Agency

UWMP – Urban Water Management Plan

V

VMT – Vehicle miles traveled

Vulnerability – The propensity or predisposition to be adversely affected.

W

WBCSD – World Business Council for Sustainable Development

Wet Weather Diversion – A diversion of both non-stormwater and stormwater flows from the storm drain system into the sanitary sewer system.

Y

Z

ZEV – Zero emission vehicle

1.

INTRODUCTION



A Climate Action and Adaptation Plan (CAAP) for a municipal water district provides a strategic framework of measures and strategies designed to address the impacts of climate change on water resources, water supply, and water and wastewater infrastructure within the jurisdiction of Las Virgenes Municipal Water District (LVMWD or District) and the Las Virgenes – Triunfo Joint Powers Authority (JPA). The JPA is a long-term partnership between LVMWD and Triunfo Water and Sanitation District (TWSD). LVMWD is the Administering Agent for the JPA. The goal of this CAAP is to both mitigate contributions to climate change (climate action) and adapt operations and systems to the threats and impacts of a changing climate (climate adaptation). The CAAP will play a crucial role in ensuring a reliable and resilient water supply and wastewater services in the face of climate change challenges. It demonstrates a proactive commitment to both reducing the impacts of climate change and adapting to the changing conditions to provide safe and sustainable water and wastewater services to the community.

LVMWD AND TRIUNFO JPA MISSION AND VISION

The CAAP supports the mission of the District and the JPA to provide high-quality, reliable water and wastewater treatment services in a cost-effective and environmentally sensitive manner. This mission applies to all LVMWD and joint LVMWD/JPA activities, as they collectively provide drinking water, recycled water, wastewater services, and biosolids composting.

This CAAP has been developed to align with LVMWD and JPA goals and long-range planning efforts, with the intent to adapt District/JPA operations and infrastructure to a changing climate and reduce greenhouse gas (GHG) emissions over time. Through innovative strategies, collaborative partnerships, and responsible stewardship, LVMWD and the JPA aspire towards a sustainable, cost effective, and equitable water supply, valuing every drop and bringing water full circle. By embracing adaptive measures and progressing towards carbon neutrality, LVMWD and the JPA are dedicated to providing high-quality water and wastewater services in a cost effective and environmentally resilient manner. The following section provides an overview of the CAAPs purpose, a system/facilities overview, and the plans that the CAAP aligns with to ensure cohesion among long-range planning efforts by LVMWD and the JPA.

TRIUNFO WATER & SANITATION DISTRICT

LAS VIRGENES MUNICIPAL WATER DISTRICT

CAAP PURPOSE

The CAAP is a long-range planning document that provides LVMWD and the JPA with a roadmap for achieving long-term GHG emissions reduction and improved resilience to climate change impacts in alignment with the State of California goals, mandates, and current legislation. It includes an analysis of LVMWD and JPA operations, associated GHG emissions sources, forecasted future emissions, climate vulnerabilities, and emissions reduction and adaptation goals and strategies. This document is intended to inform future policy and planning decisions on operations, water resources, capital investments, conservation, and local resource programs. Additionally, the CAAP aligns with LVMWD and JPA long-range plans including the 2020 Las Virgenes Municipal Water District Urban Water Management Plan, 2014 Integrated Master Plan for Las Virgenes Municipal Water District and Triunfo Sanitation District (IMP), and 2019 Hazard Mitigation Plan. The CAAP will support LVMWD and JPA efforts to adjust operations as feasible in order to adapt to climate change effects and to obtain infrastructure grant/loan funding necessary for increasing resiliency.

The CAAP establishes GHG emissions reduction targets that align with those goals set by the State of California, as well as with the international consensus regarding the GHG reductions needed to avoid the most serious climate change impacts. The emissions inventory and forecast presented in Chapter 4 provide a basis for establishing targets for future GHG reductions. LVMWD and the JPA are establishing an annual reduction rate to meet the State's 2045 carbon neutrality goal, as set forth by Assembly Bill (AB) 1279. By setting a straight line to the 2045 target, LVMWD and the JPA commit to reducing mass GHG emissions 69 percent below 1990 levels by 2030, surpassing Senate Bill 32, which requires a 40 percent reduction in emissions from 1990 levels.

The CAAP creates a roadmap that will provide LVMWD and the JPA with a broad range of strategies and measures to mitigate or reduce GHG emissions in line with State goals based on operational feasibility, cost, and the availability of State and federal grant funding. It will help LVMWD and the JPA to reduce overall GHG emissions from its operations and will align them with State mandates and legislation. In addition to establishing a pathway to an emissions reduction goal of 69 percent below 1990 levels by 2030 and carbon neutrality by 2045, the CAAP:

- Incorporates legislation and guidance from State, federal, and international sources,
- Identifies cost-effective energy efficiency and decarbonization measures,
- Provides co-benefits, such as improved operational resilience and improved air quality, and
- Integrates actions to transition away from fossil fuel use in alignment with California's clean fleet goals and overall strategies to reduce GHG emissions from the transportation sector.



CAAP Intent and Use

The CAAP provides a comprehensive analysis of climate threats and operational GHG emissions sources, as well as a programmatic guide for opportunities to increase resiliency and reduce GHG emissions. It is not intended to serve as a qualified GHG Reduction Plan per the California Environmental Quality Act (CEQA) requirements of Section 15183.5(b). Although the CAAP discusses climate-related impacts and provides GHG reduction strategies, it cannot be used to tier or streamline development projects as it relates to CEQA requirements. LVMWD and the JPA provide critical services to the communities they serve and are committed to implementing GHG reduction strategies to the extent they are both feasible and cost-effective. The CAAP's intent is to serve as an informative document that introduces concepts related to climate action planning and establishes a set of strategies that align with the State's GHG-reduction goals and associated legislation that can be used to implement mitigation and adaptation strategies. By defining specific reduction goals, LVMWD and the JPA can track their progress towards meeting their goals and measure the success of their CAAP strategies. LVMWD and the JPA are committed to developing new measures and strategies, leverage emerging technologies and products, and updating the CAAP in an effort to adapt to emerging climate threats and maintain progress with their established carbon neutrality target.



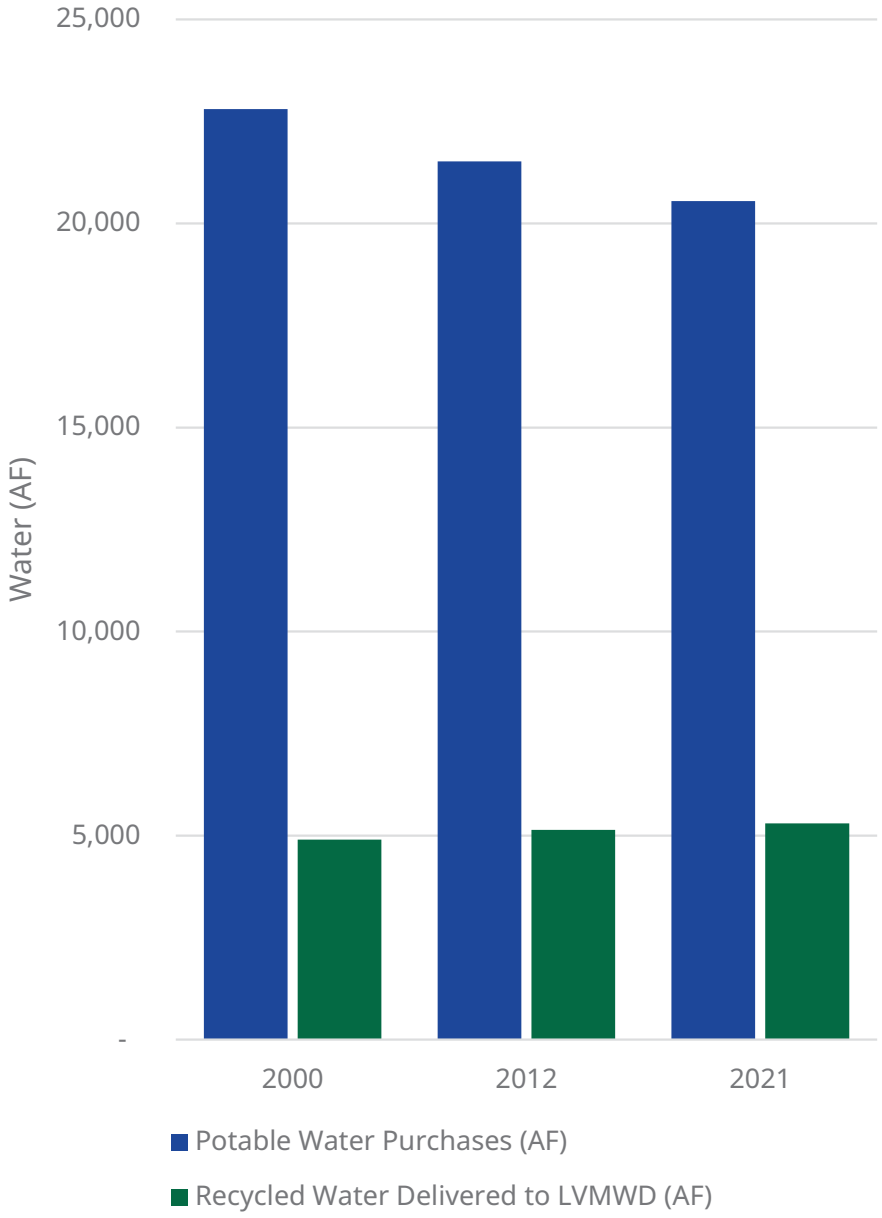
LVMWD/JPA System Overview

This CAAP covers LVMWD facilities and operations and JPA operations. LVMWD acts as Administering Agent for the Triunfo JPA, which is a long-term partnership between LVMWD and the Triunfo Water and Sanitation District (TWSD). The JPA co-owns, and LVMWD operates and maintains, several shared wastewater facilities, including the Tapia Wastewater Reclamation Facility, a backbone reclamation water main, the Rancho Las Virgenes Composting Facility, spray fields for seasonal disposal of excess recycled water, and a 5-megawatt solar farm. GHG emissions associated with the operation and maintenance of TWSD's infrastructure are not measured as part of the GHG inventory, as outlined in Chapter 4.

Collectively, the JPA provides wastewater treatment, recycled water, and biosolids composting to more than 100,000 residents in the cities of Agoura Hills, Calabasas, Hidden Hills, Westlake Village, unincorporated areas of western Los Angeles County, and eastern Ventura County, including Oak Park. LVMWD provides potable water services to 70,000 of its residents. LVMWD's potable water distribution system includes 25 storage tanks, 24 pump stations, and almost 400 miles of pipelines. LVMWD's recycled water system consists of 62 miles of pipelines, 3 storage tanks, 3 open reservoirs, and 4 pump stations. The potable water system serves potable retail customers, primarily residential, and the recycled water system provides water resources to irrigate parks, golf courses, roadway landscapes, commercial properties, and multi-family landscapes. Water delivered per year, in acre-feet (AF), by LVMWD in 2000, 2012, and 2021 is shown in Figure 1-1. Water deliveries for these years are shown in alignment with years included in the multi-year GHG inventory, as seen in Chapter 4. Highlighting 1990, 2000, 2012, and 2021 illustrates shifts in water deliveries over two decades of service. The GHG emissions associated with these water deliveries are primarily from the purchase and consumption of electricity used for water treatment, conveyance, and delivery of water throughout the service area, as well as emissions associated with the Tapia Water Reclamation Facility.



Figure 1-1. Water Delivered for Select Years (AF) by LVMWD



Long-Range Planning

As an urban water supplier, LVMWD is required to prepare an Urban Water Management Plan (UWMP) every 5 years in response to the requirements of the UWMP Act, California Water Code Sections (CWC) 10610 through 10656. UWMPs are required to support the long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs over a 20-year planning horizon during different climate scenarios. In July 2021, LVMWD's Board of Directors approved the most recent 2020 Urban Water Management Plan (UWMP 2021). LVMWD coordinated their planning efforts with several local water agencies to calculate demand projections, characterization of shared supplies, and planning for potential water shortages. This partnership included Calleguas Municipal Water District, Triunfo Water and Sanitation District, and The Metropolitan Water District of Southern California (MWD). To be consistent with anticipated growth in operations, water supply and demand projections are incorporated into the CAAP.

The 2014 Integrated Master Plan (IMP) for Las Virgenes Municipal Water District and Triunfo Sanitation District summarizes the findings of the Potable Water Master Plan, Sanitation Master Plan, and Recycled Water Master Plan, all adopted in 2014. The Potable Water Master Plan and Recycled Water Master Plan each evaluate historical and future water demands making several recommendations to secure water and avoid additional costs. The Sanitation Master Plan includes recommendations for specific sanitation projects for LVMWD to undertake such as refurbishment of existing assets, operation optimization, and sanitation system upgrades to allow LVMWD to plan for expansion and projected capacity needs in the future. The IMP recommends relieving demands from the potable system through specific recycled water construction projects and re-working the wastewater system to be more easily managed. Therefore, the CAAP aligns with and highlights opportunities within the IMP to reduce GHG emissions as a co-benefit.

Other long range planning documents such as the 2019 Las Virgenes Municipal Water District Hazard Mitigation Plan, have identified hazards that LVMWD is vulnerable to and recommend specific actions to minimize such vulnerabilities. This hazard mitigation plan developed by LVMWD explicitly sets a goal to increase the resiliency of LVMWD by "reducing risk from hazards by identifying resources, information, and strategies for risk reduction, while helping guide and coordinate mitigation activities." Included in the plan is a series of hazard mitigation actions to be completed by LVMWD over the next few years to address hazards. The CAAP complements the strategies and hazard mitigation actions detailed in the Hazard Mitigation Plan.

HISTORY AND CURRENT OPERATIONS

This section provides an overview of the history and operations for LVMWD and the JPA, including its water supply sources, treatment requirements, and infrastructure.

LVMWD/JPA Formation and Service Area

LVMWD was formed in 1958 to supply imported water to western Los Angeles County. The Triunfo JPA was established in 1964 to treat wastewater within the Malibu Creek watershed. The respective service areas, shown in Figures 1-2 and 1-3, are located in the cities of Agoura Hills, Calabasas, Hidden Hills, Westlake Village, unincorporated areas of western Los Angeles County, and eastern Ventura County and are within the South Coast Hydrologic region, as defined by the Department of Water Resources. Figure 1-2 also shows LVMWD's water supply sources.

The climate of the service areas is characterized as semi-arid, with mild winters, warm summers, and moderate rainfall. The usually mild climate occasionally has periods of extremely hot weather, winter storms, or hot and dry Santa Ana winds.

Water Sources and Supply

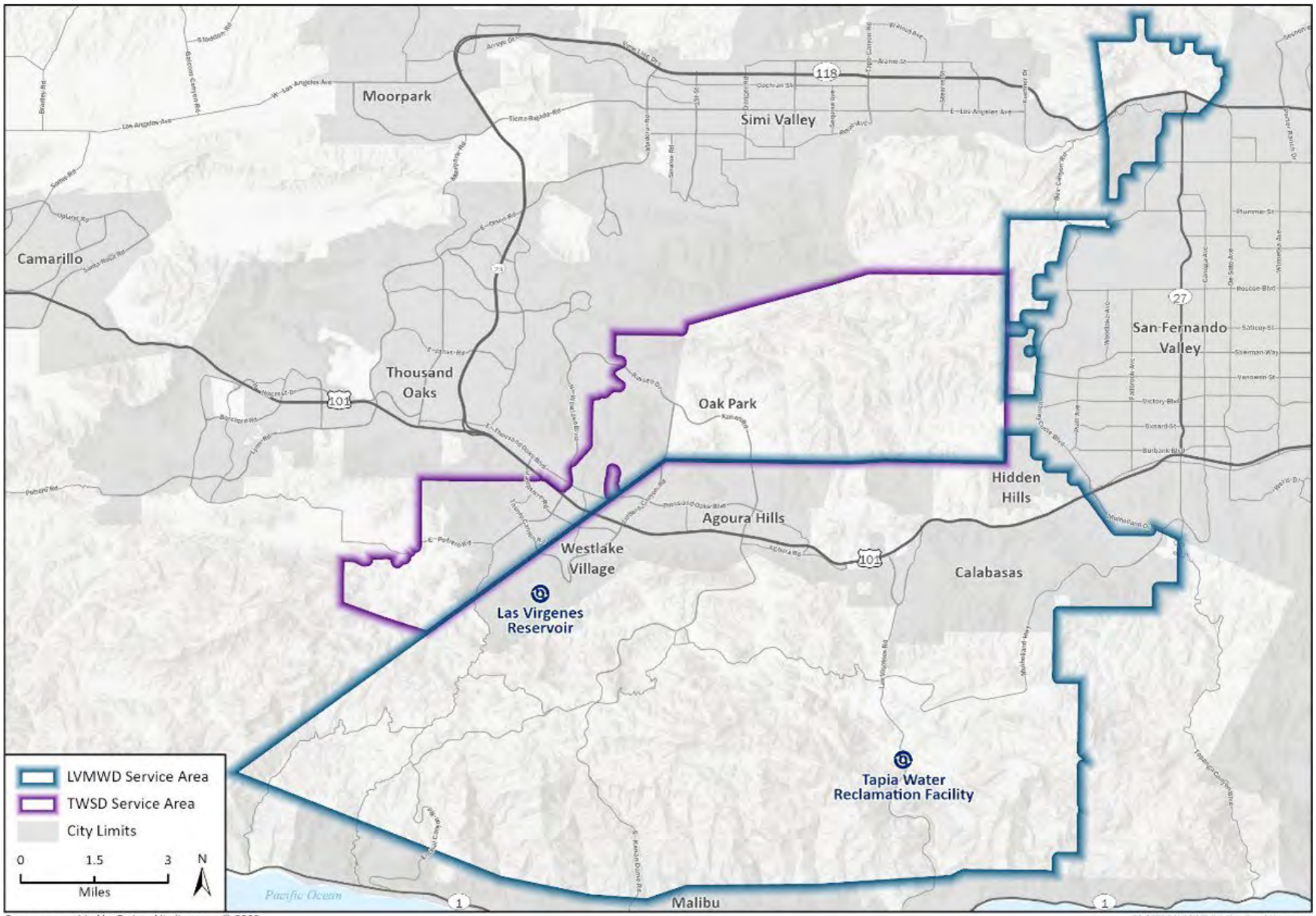
LVMWD and the JPA obtain water from various sources, including treated, drinkable water brought in from the MWD, recycled water derived from the TWRF, groundwater from the Russell Valley Basin in Westlake Village (used to complement the TWRF), and surface runoff collected into the Las Virgenes Reservoir. The imported water originates from the State Water Project (SWP). Water resources have been carefully managed to enhance water reliability, employing a strategy that emphasizes aggressive use of recycled water, minimal reliance on groundwater to supplement recycled water supplies, and storing water in Las Virgenes Reservoir during low-demand periods in the winter to meet peak demand periods during summer months.

Figure 1-2. LVMWD/JPA Vicinity Map





Figure 1-3. LVMWD and Triunfo JPA Service Areas



Domestic Water Delivery

LVMWD serves over 70,000 residents within a service area spanning 122 square miles, offering potable water, recycled water, and sanitation services. The water distribution system comprises 22 primary pressure zones, more than 400 miles of pipelines, 24 pumping stations, 25 storage tanks, and over 75 pressure regulating stations.

Wastewater and Recycled Water

Through the JPA, LVMWD operates the TWRF, which processes an average of 9.5 million gallons per day (MGD) of wastewater and has a total capacity of 16 MGD. The TWRF employs treatment methods to purify the wastewater to a high level, enabling its use for non-potable purposes like landscape irrigation and various commercial applications. Approximately 20 percent of all water supplied by LVMWD is recycled for irrigation purposes. The solid by-products generated during the treatment process are transported through a 4-mile-long buried pipeline to the Rancho Las Virgenes composting facility. At this facility, the solids undergo anaerobic digestion, dewatering, and composting, resulting in Class A Exceptional Quality compost that is made available for use by the public. Pictured to the right is the Rancho Las Virgenes Composing Facility.



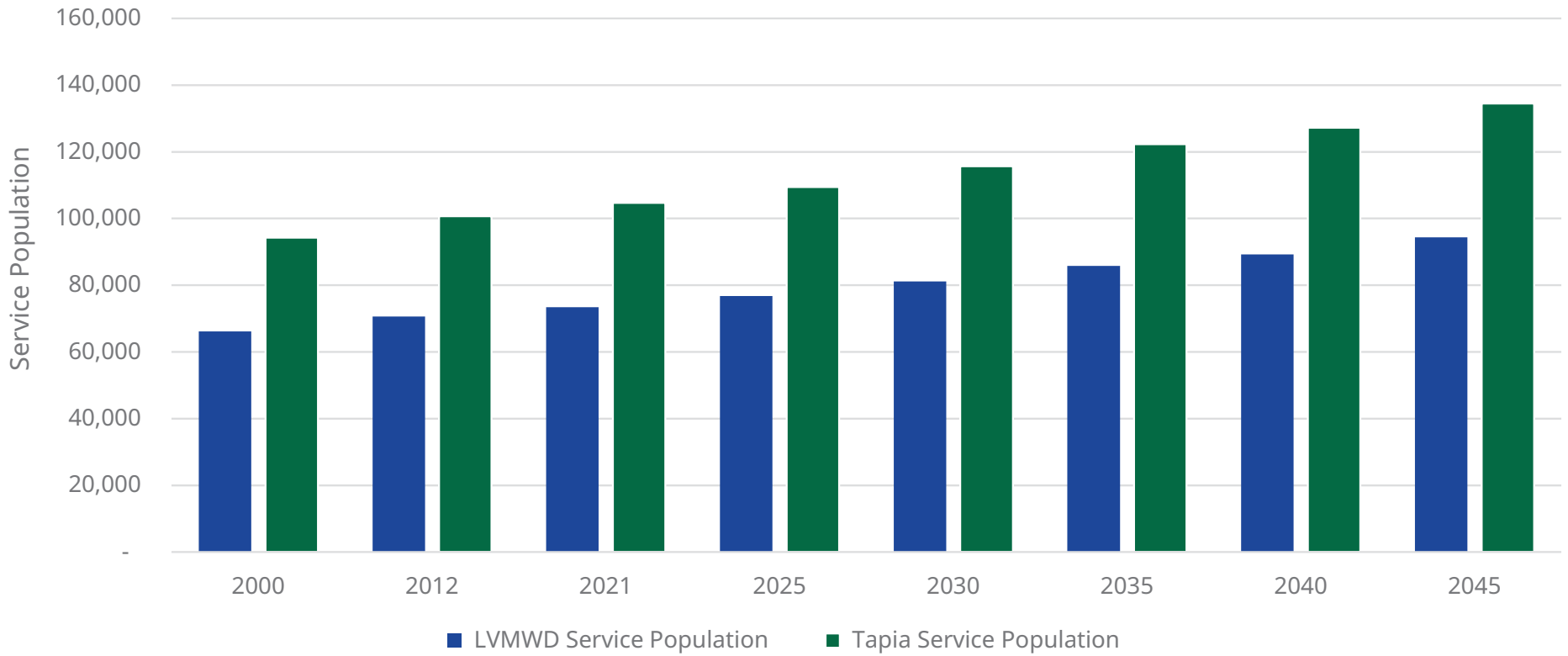
Environmental Commitment and Greenhouse Gas Reduction History

LVMWD and JPA GHG emissions are primarily related to the purchase and consumption of electricity used for operations and wastewater treatment throughout their service areas. Future GHG emissions are anticipated to increase due to planned service expansions and population increases, as estimated in the 2020 UWMP. As shown in Figure 1-4, service populations for LVMWD only (LVMWD Service Population) and for the areas served by the JPA that includes both LVMWD and Triunfo Water and Sanitation District services areas (Tapia Service Population) are estimated to grow from approximately 73,435 and 104,651 in 2021 to 94,392 and 134,516 in 2045, respectively. Chapter 4 describes LVMWD's historic, current, and forecasted emissions in further detail.

Furthermore, impacts from the changing climate such as increased frequency and severity of drought conditions are projected to potentially impact the quantity and quality of local water supplies, as well as the availability of imported water from the SWP. Chapter 3 describes exposure to climate change and vulnerabilities in further detail.

Prior to development of this CAAP, LVMWD and the JPA substantially reduced their GHG emissions through the implementation of operational efficiencies, renewable energy projects, and water conservation programs into their services. Some of these efforts and the associated effects on reducing GHG emissions are summarized below.

Figure 1-4. Historical and Forecasted Service Population by LVMWD and TWRF



Infrastructure Energy Efficiency and Renewable Energy

LVMWD and the JPA have continually invested in projects and efforts to upgrade infrastructure and improve the energy efficiency of its operations. This has included installing a solar system to reduce reliance on fossil fuels and increase energy resilience. The solar energy has resulted in lower energy costs and reduced GHG emissions over time. A back-up battery storage system under construction at the Rancho Composting Facility will provide additional resiliency. Additionally, LED upgrades have been completed at District Headquarters and TWRF, leading to increased energy efficiency, decreased electricity consumption, and reduced GHG emissions.

LVMWD contracted to buy power from a Solar Power Generation Facility (operational in 2014), which is owned and operated by Solar City at a fixed cost over a 20-year period. This facility is designed to generate peak power of approximately 1 million watts or one megawatt, which is used to pump recycled water for regional use. Solar City has estimated that over its lifetime, the solar facility will prevent more than 82 million pounds of carbon from entering the atmosphere or the equivalent of removing 750 cars from the road.[1] Operational in 2021, LVMWD's Solar Generation Project Phase II was developed to provide an additional 4 megawatts of renewable energy. At the time of development, this solar facility was projected to reduce electrical costs by an estimated $10.3 million over a 25-year period. The amount of power generated from the combined 5-megawatt solar facility is enough to operate the TWRF.[2]



Water Conservation and Reliability

LVMWD has developed strategies for water conservation through the Comprehensive Water Conservation Plan,[3] which aligns their water conservation targets with State goals. The plan outlines several water conservation programs aimed at reducing water use, reducing water costs for customers, and meeting state water conservation goals. Current LVMWD water conservation efforts include:

- Weather based Irrigation Controller Giveaway/Rebate Program
- High Water Use Account Review and One-on-One Consultations
- Rain Barrel Giveaway/Rebate Program
- Development and Implementation of a Landscape Transformation Initiative
- Improved Education and Outreach Efforts
- Advanced Water Meter Project

These efforts have led to an estimated water reduction of 421 AF per year, since 2018. As of 2023, the Weather Based Irrigation Controller Giveaway/Rebate Program has provided over 2,000 smart controllers to customers. LVMWD is actively developing additional programs to further water conservation efforts. Specifically, the Landscape Transformation Program, launched in 2023, will further efforts to promote the transformation to water efficient landscaping.

LVMWD and the JPA are committed to ensuring that its customers have access to reliable drinking water resources. The Pure Water Project Las Virgenes - Triunfo will play a critical role in providing reliable water in the future. The project, a joint effort between LVMWD and TWSD, is currently in the development stages, and will take surplus recycled water from the TWRF and further purify the water to meet or exceed drinking water standards. This effort is critical to helping ensure long-term drinking water supply reliability as LVMWD is currently reliant on imported drinking water from the State Water Project. Pure Water operations are expected to come online by no later than 2030.

1. *LVMWD. N.d. Solar Power Generation Facility.* ***https://www.lvmwd.com/our-services/wastewater-services/solar-power-generation-facility#:~:text=The%20solar%20power%20generation%20facility,recycled%20water%20for%20regional%20use.***
2. *LVMWD. N.d. Solar Generation Project Phase II.* ***https://www.lvmwd.com/the-district/departments/engineering-and-external-affairs/technical-services-planning-engineering/master-plans-and-engineering-documents/solar-generation-project-phase-ii***
3. *Comprehensive Water Conservation Plan. LVMWD. 2020.* ***https://www.lvmwd.com/home/showpublisheddocument/13413/637600622563770000***

Vehicle Fleet

LVMWD'S Advanced Meter Project[4] is minimizing fleet vehicle usage as customers with advanced meters will no longer need in-person monthly meter reads, leading to fewer LVMWD fleet vehicles on the road for meter reading. This significantly reduces fleet vehicle usage and reduces LVMWD's GHG emissions.

Wildfire Mitigation and Energy Resilience

The LVMWD and JPA service areas are in high wildfire risk zones. LVMWD and the JPA are committed to implementing measures to mitigate future wildfire risk, potential damage to facilities and infrastructure, power outages, and associated service disruptions. Completed and ongoing efforts to minimize wildfire risk and increase resilience to power outages include:

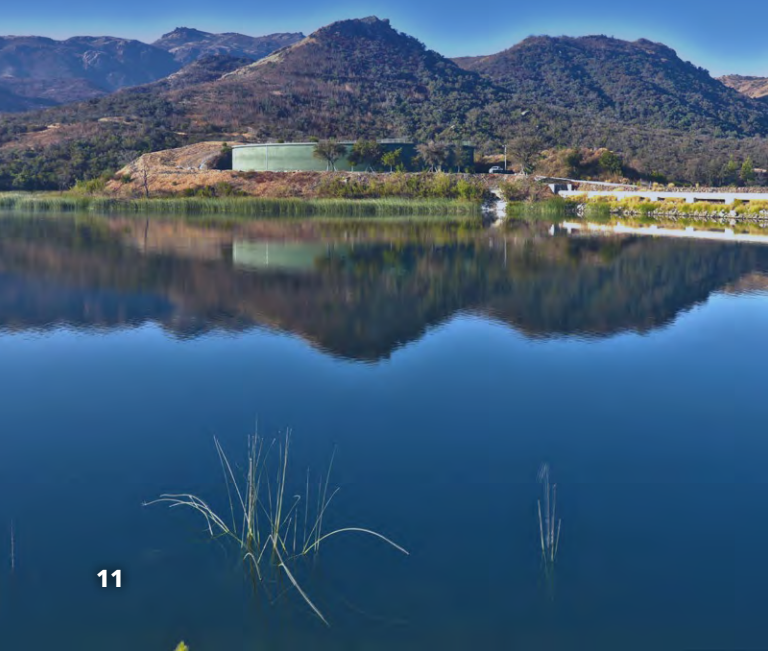
- Implementing vegetation and landscape management practices that reduce the amount of flammable materials,
- Clearing brush and trimming trees around critical infrastructure,
- Conducting structure hardening upgrades to improve resilience to wildfires, and
- Completing the installation of emergency power generation systems at several facilities.



4. *LVMWD. Advanced Meter Project. 2023.* ***https://www.lvmwd.com/our-services/construction-projects/lvmwd-advanced-meter-program***

2.

SCIENTIFIC CONTEXT FOR CLIMATE CHANGE



CLIMATE CHANGE CAUSES

While the scientific understanding of climate change continues to evolve, the mechanisms driving climate change have been well understood for decades. These mechanisms include the release of GHG emissions associated with human activities into Earth's atmosphere and the effects on the global climate. This section provides an overview of the scientific context of climate change attributed to human activity.

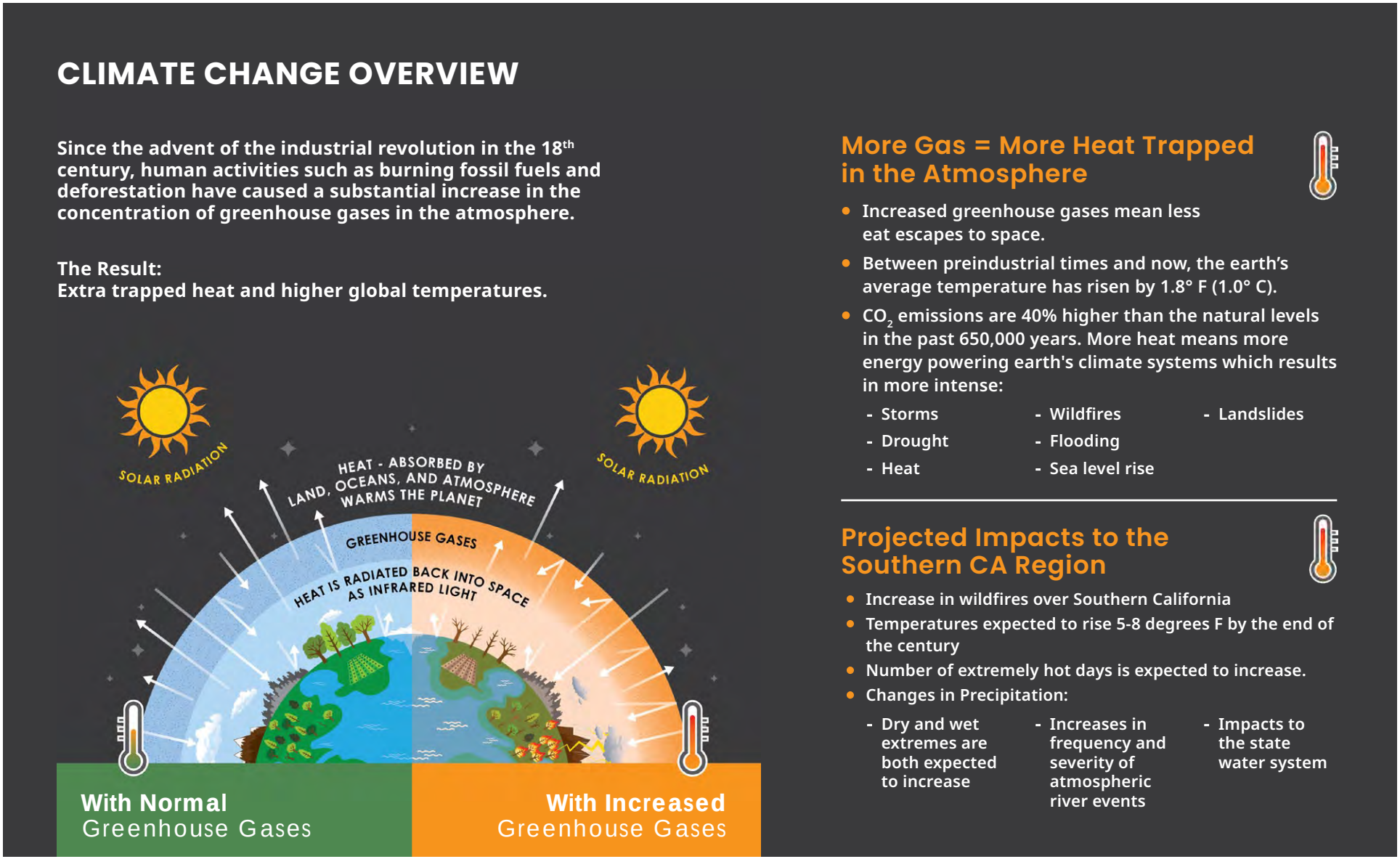
GHG Effect and Emissions Sources

Below is a discussion of the effects of GHG emissions, impacts of global warming, as well as a discussion of GHG emission sources, including those specific to LVMWD's and JPA's operations.

GHG Effect

Most of the energy that affects the Earth's climate comes from the sun. When solar radiation reaches the Earth, some fraction is absorbed by the Earth's surface, and some is reflected back into space. Gases in the Earth's atmosphere act like a blanket reducing the amount of energy radiated back into space from Earth's surface resulting in heat being trapped within the atmosphere. This is known as the "greenhouse effect" because atmospheric gases function similar to the windows in a greenhouse, which trap the Sun's rays and create a much warmer space inside the greenhouse than the outside air. The greenhouse effect regulates the Earth's climate, maintaining conditions suitable for life on Earth. However, a rapid increase of GHG emissions can cause excess heat to be trapped, affecting global temperatures and climate. More specifically, human activity, such as burning fossil fuels to generate electricity and heat, and the transportation of people and materials in vehicles has increased the amount of GHGs emitted into the atmosphere. The increase of emitted GHGs has led to an increased adsorption of infrared radiation by the Earth's atmosphere and increased temperatures near the surface. This process is depicted in Figure 2-1.

Figure 2-1. Greenhouse Gas Effect and Associated Climate Impacts[5]

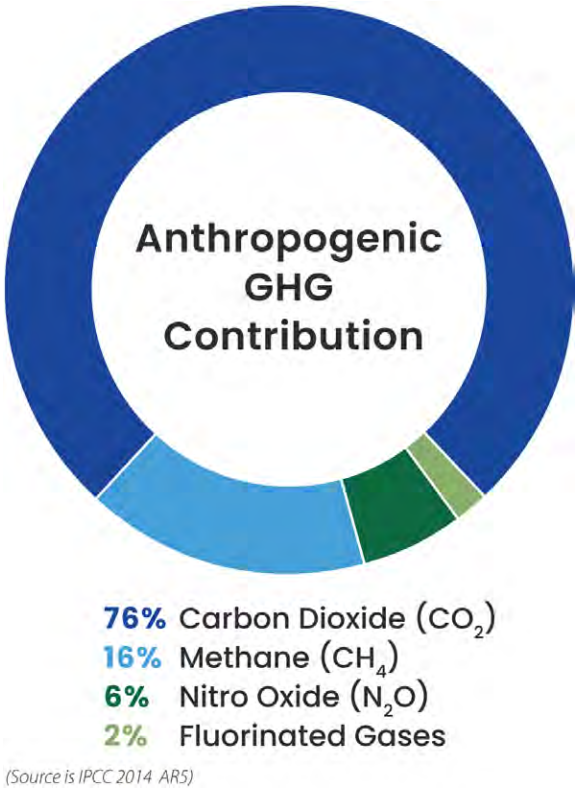


5. *Information in Figure 2-1 regarding the GHG effect was obtained from* ***https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions***

Global Warming Potential

The primary GHGs that are most responsible for the radiative greenhouse effect on Earth include carbon dioxide (CO_2), methane (CH_4), and nitrous oxides (N_2O). CO_2 contributes approximately 76 percent of total GHG emissions, largely due to combustion of fossil fuel for energy generation and fuel use. As shown in Figure 2-2, CH_4 and N_2O from agriculture and industrial activities contribute approximately 16 percent and 6 percent, respectively, to total GHG emissions. Other GHGs that are used in products and processes include fluorinated gases, which are released in small quantities that contribute about two percent of overall emissions.

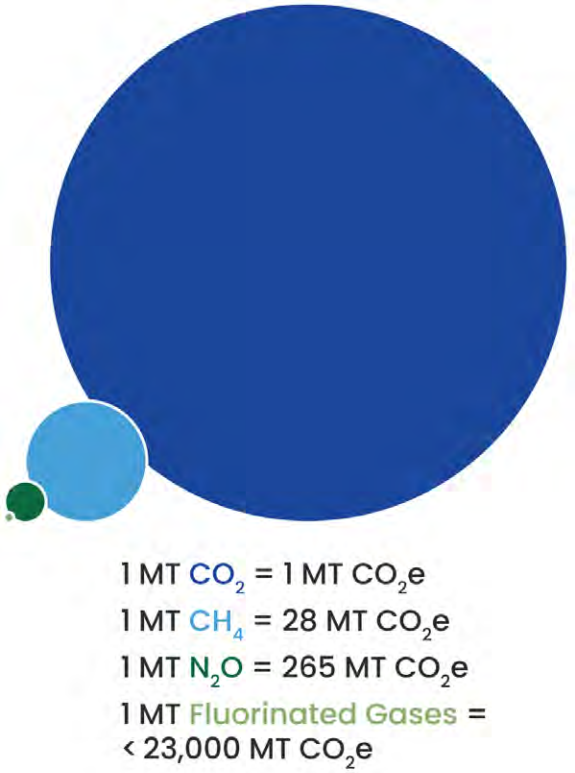
Figure 2-2. GHG Global Contribution



(Source is IPCC 2014 AR5)

Each GHG has its own global warming potential (GWP), which refers to the extent to which the GHG traps energy in the atmosphere.[6] The determination of a GHG's GWP utilizes CO_2 as a reference point and compares the potential impact of different GHGs where CO_2 has a GWP of 1. Using the latest 100-year GWP values published in the International Panel on Climate Change (IPCC) Fifth Assessment Report (IPCC 2014), CH_4 has a GWP of 28, meaning that each unit of CH_4 causes 28 times more global warming potential than 1 unit of CO_2, while N_2O has a GWP of 265.[7,8] Other GHGs include the fluorinated gases, which can have a GWP of up to 23,500. IPCC publishes Assessment Reports to update GWPs of several GHGs following advances in scientific knowledge on the radiative efficiencies and atmospheric lifetimes of GHGs. The IPCC's Fifth Assessment Report (2014) is among the most current and comprehensive peer-reviewed assessments of climate change. When individual GHGs are normalized based on their GWPs, we refer to them as carbon dioxide equivalents or CO_2e. Generally, GHG emissions are quantified in terms of metric tons (MT) CO_2e emitted per year. Figure 2-3 shows a comparison of the most common GHGs and their GWPs.

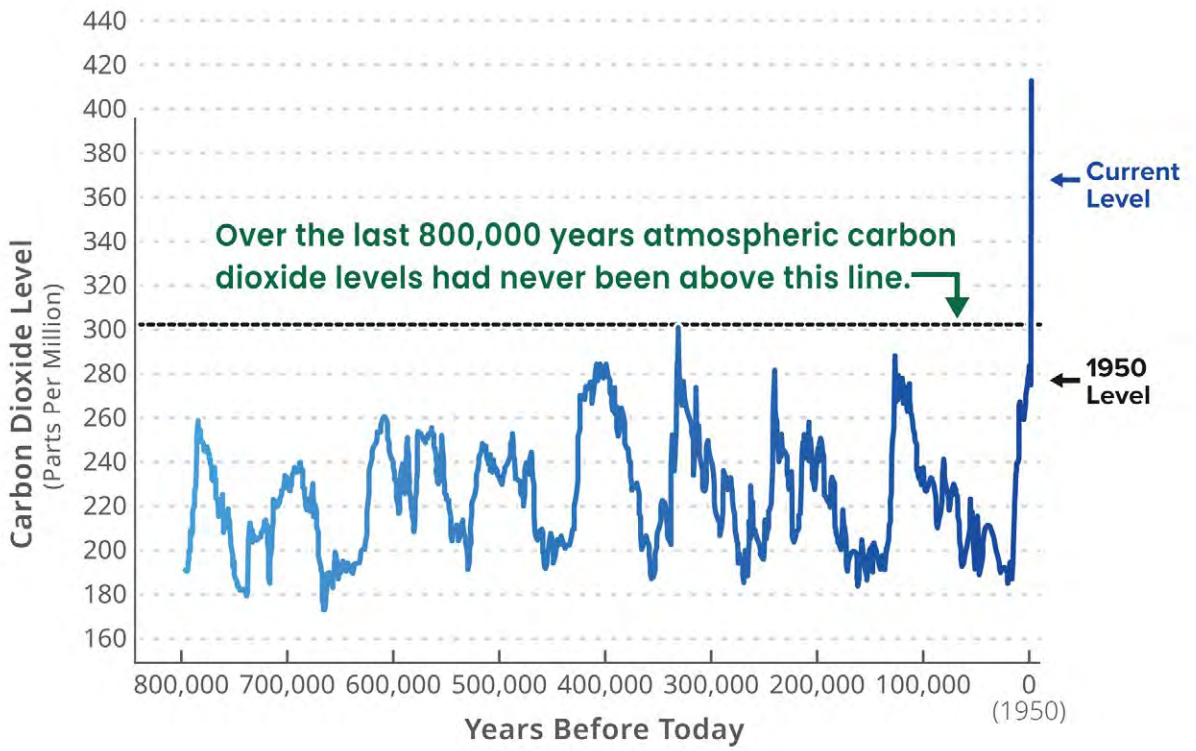
Figure 2-3. Comparison of GHG GWPs



6. *According to the United States Environmental Protection Agency, the GWP was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of one ton of a gas will absorb over a given period of time, relative to the emissions of one ton of CO_2 (EPA 2017).*
7. *International Organization for Standardization (ISO) published ISO 14064-1 in 2006 (revised 2018) to provide an international standard for the quantification and reporting of GHG emissions.*
8. *Greenhouse Gas Protocol. 2016.* ***https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf***

While CO_2 has the lowest GWP of the GHGs, it is by far the largest contributor to climate change effects due to the total mass of anthropogenic CO_2 emissions released annually; this is largely due to the combustion of fossil fuels. Since the start of the industrial revolution in the mid-nineteenth century, human activities have been emitting large quantities of GHGs into the atmosphere, enough to nearly double the amount of CO_2 from 280 parts per million to over 400 parts per million, which is 100 parts per million higher than any time in the last 800,000 years. The atmospheric concentration of CO_2 over time has been calculated by measuring the composition of air trapped in ice cores from Antarctica,[9] as shown in Figure 2-4.

Figure 2-4. Atmospheric Carbon Dioxide Levels



Source: ***https://climate.nasa.gov/evidence/***

GHG Emission Sources

Anthropogenic processes that release GHGs include: the burning of fossil fuels for transportation, heating, and electricity generation; agricultural practices that release methane, such as livestock grazing and crop residue decomposition; and industrial processes that release smaller amounts of high-GWP gases. Deforestation and land cover conversion also contribute to global warming by reducing the Earth's capacity to remove CO_2 from the air and altering the Earth's albedo,[10] or surface reflectance, allowing for absorption of additional solar radiation. According to the U.S. Environmental Protection Agency (USEPA), gross GHG emissions nationwide have increased by 1.3 percent since 1990. While the continued shift from coal to natural gas and increased use of renewables in the power sector helps to reduce GHG emissions, continued increases in population growth and industrialization can lead to further increases in GHG emissions unless technology and practices transition to low carbon alternatives.

9. *Bereiter et. al. 2008.* ***https://www.researchgate.net/publication/5370384_High-resolution_carbon_dioxide_concentration_record_650000-800000_years_before_present***
10. *Albedo refers to the amount of diffuse radiation of energy out of the total, ranging from 0 (a black body that absorbs all radiation) to 1 where no energy/radiation is absorbed. Source: National Snow & Ice Data Center (NSIDC). 2020.* ***https://nsidc.org/cryosphere/seaice/processes/albedo.html***

LVMWD and JPA GHG Emission Sources

Sources of GHG emissions associated with LVMWD and the JPA include the following:

- Electricity usage to pump groundwater, conduct water quality sampling and treatment, provide water conveyance and distribution throughout the service area, and operate LVMWD/JPA facilities such as pump stations, lift stations, water reclamation plants, and water recycling
- Combustion of fuels (such as natural gas) in buildings and stationery equipment
- Combustion of fuels (such as gasoline and diesel) for transportation (fleet vehicle internal combustion of fuel and employee commutes)
- Emissions released from the processing and treatment of wastewater (e.g., combustion of digester gas, N_2O from nitrification or denitrification, and emissions in effluent discharge)
- Waste emissions including combustion of fuels in waste collection vehicles and landfill equipment as well as emissions from the decomposition of waste generated by LVMWD/JPA operations at the landfill

A complete description of operations and associated GHG emissions are located in Chapter 4. Pictured to the right is LVMWD's Headquarters.



3.

CLIMATE CHANGE VULNERABILITIES



CLIMATE CHANGE EXPOSURE

The addition of excess GHGs to the atmosphere is responsible for trapping heat near the earth's surface, increasing the average temperatures across the globe. This increase in average temperatures is the cause of climate change and affects local health, natural resources, infrastructure, emergency response, and many other aspects of society. According to the IPCC, GHGs are now higher than they have been in the past 400,000 years, raising carbon dioxide levels from 280 parts per million to 410 parts per million in the last 150 years (IPCC 2021). The dramatic increase in GHG's is attributed to human activities beginning with the industrial revolution in the 1800s, which represented a shift from an agrarian and handicraft-based economy to one dominated by industry and machine manufacturing (IPCC 2021).

To evaluate the impact of climate change on LVMWD and JPA operations and infrastructure, future conditions were modeled using the State of California's Cal-Adapt tool.[11] These models predict that the combined service area and state water supplies are expected to experience a wide variety of impacts by the end of the century. According to California's Fourth Climate Change Assessment, the service areas will be affected by projected changes that include changes in precipitation patterns, wildfire risk, the prevalence of extreme heat events, and ocean temperatures and chemistry.

The Cal-Adapt tool provides climate data from global-scale models that have been localized (downscaled) to 3.7-mile by 3.7-mile grids (California Energy Commission [CEC] 2021). The data in Cal-Adapt specific to the combined service area is consistent with information provided by the California Fourth Climate Change Assessment, Los Angeles Regional Report (2018) to describe protected future changes for specific types of hazards. Other reports, including the California Department of Water Resource's Climate Change Vulnerability Assessment, provide information regarding climate change projections and impacts to the State Water Project and water supplies. Projections throughout this section are presented consistent with the Governor's Office of Planning and Research (OPR) using Representative Concentration Pathway (RCP) 8.5 as a conservative approach to assessing and adapting to climate change. RCP 8.5 is a high greenhouse emissions scenario in which global emissions continue to rise through the end of the twenty-first century. Additionally, projections are forecasted to mid-century (2035-2064) and end-of-century (2070-2099) as 30-year averages and are compared to a modeled historical baseline (1961-1990).

11. Cal-Adapt 2.0 is an online tool that presents historic and modeled projections based on 10 different global climate models. The tool was developed and is maintained by the University of California, Berkeley Geospatial Innovation Facility with funding and oversight by the CEC. This tool was used to present projection data related to minimum and maximum temperature, precipitation, extreme heat, warm nights, drought, and wildfire.

TRIUNFO WATER & SANITATION DISTRICT

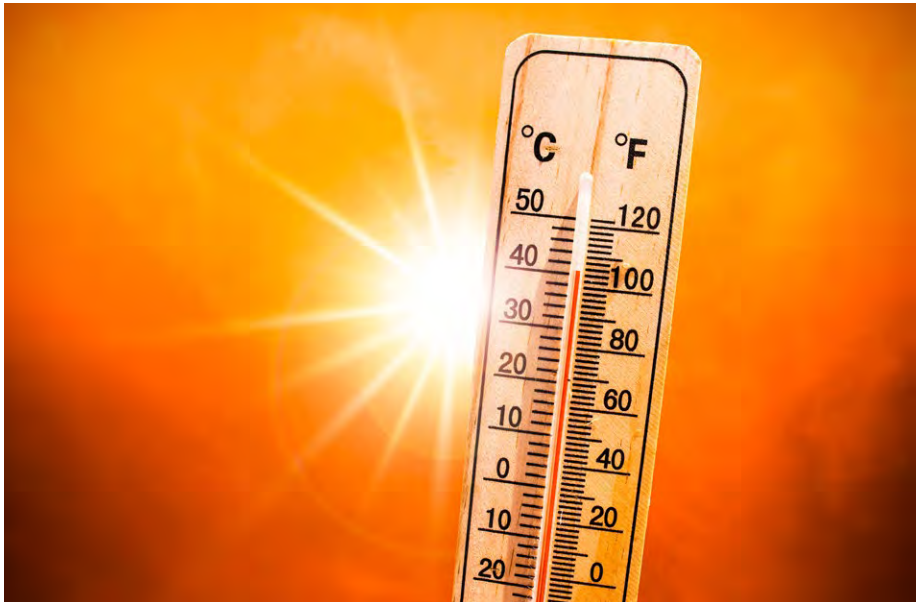
LAS VIRGENES MUNICIPAL WATER DISTRICT EST. 1958

Climate Drivers

The climate drivers of concern include temperature and precipitation.

Temperature

Average maximum temperatures are expected to increase in the combined service area. Compared to the observed baseline (1961-1990), average maximum temperatures in Calabasas (District Headquarters) are expected to rise between 4.3 °F and 8.1 °F by the end of the century. According to "Our Climate Crisis: A Guide for SoCal Communities in the Wildland Urban Interface" prepared by the Malibu Foundation, the cities of Calabasas, Agoura Hills, and Hidden Hills, will face the highest temperature increases in the Santa Monica Mountains region. Temperature increases influence extreme heat, drought, and wildfire, as discussed further in this Chapter.



Precipitation and Drought

Precipitation in the combined service area is highly variable from year to year. According to California's Fourth Climate Change Assessment, Los Angeles Region Report (2018), typically about five storms each year generate approximately 50 percent of total precipitation in the Los Angeles region. Model projections are inconsistent, however, small changes in average annual precipitation compared to the region's historic baseline are expected.[12]

Increased intensity of precipitation events is expected for the greater Los Angeles Area, including the combined service area, through the end of the century. Both dry and wet extremes are expected to occur in the future. By the end of the century, the wettest day of the year is expected to increase across most of the Los Angeles region, with some locations experiencing 25-30 percent increases. Maximum 1-day precipitation is projected to increase between 0.3 and 0.4 inch by the end of the century. Extremely dry years are expected to increase in the Los Angeles region, potentially doubling or more in frequency by the end of the century. The maximum length of dry spell currently has a 158-day average in the combined service area and is projected to increase between 8 and 16 days by the end of the century.[13]



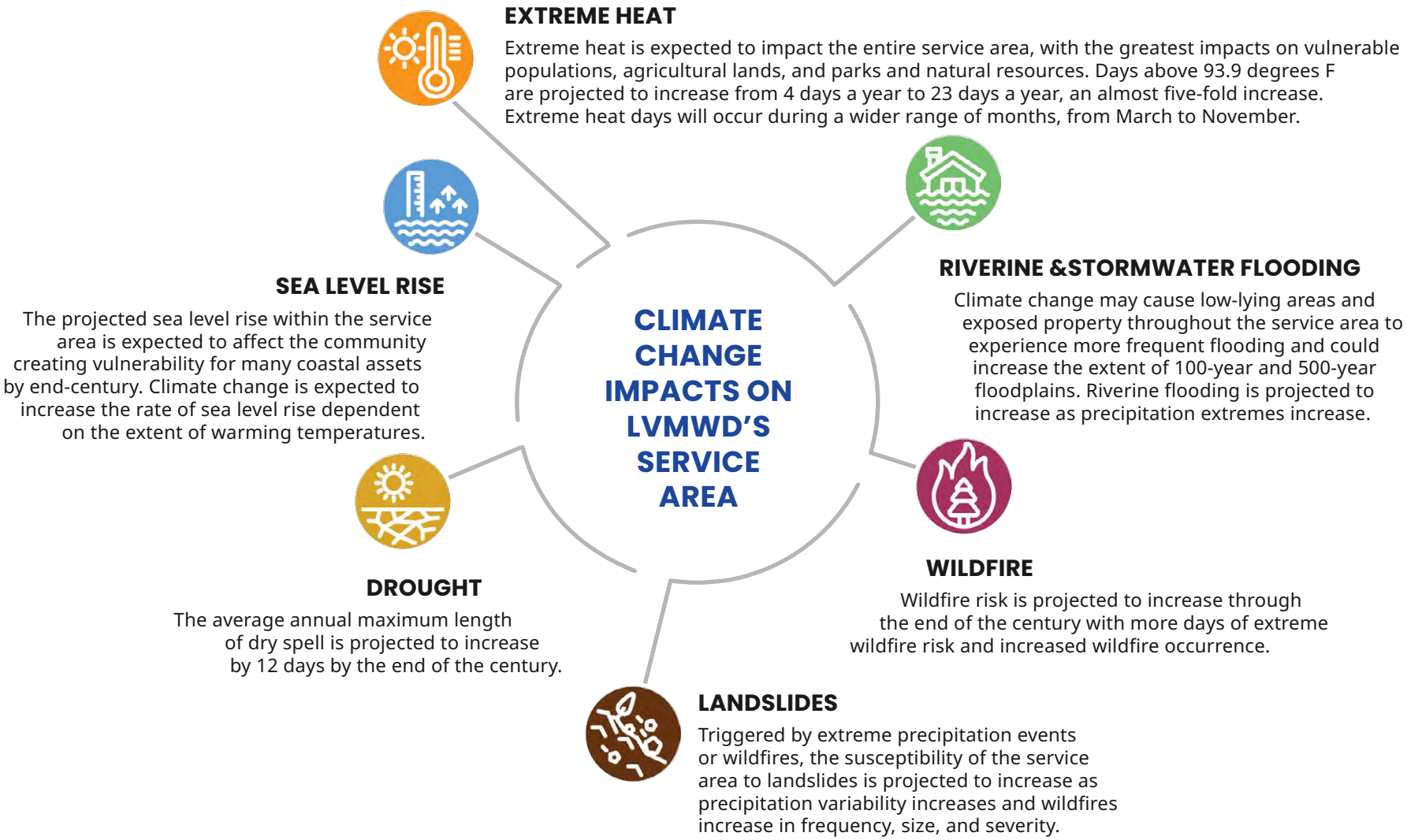
12. *Hall et al. 2018. Los Angeles Region Report: California's Fourth Climate Change Assessment.* ***https://www.energy.ca.gov/sites/default/files/2019-11/Reg%20Report-%20SUM-CCCA4-2018-007%20LosAngeles_ADA.pdf****. Accessed July 2023*

13. *California Energy Commission (CEC). 2023. Cal-Adapt.* ***https://cal-adapt.org/tools/local-climate-change-snapshot****. Accessed July 2023*

Regional Climate Hazards

LVMWD and JPA infrastructure, facilities and water supplies are exposed to climate hazards including drought, wildfire, extreme heat, extreme storms/precipitation events, floods, and landslides. A summary of climate change impacts is shown in Figure 3-1.

Figure 3-1. Climate Change Impacts on the Combined (LVMWD and JPA) Service Area



Wildfire

Wildfires in California have occurred with increased frequency and intensity over the past two decades. There are many areas in the combined service area designated by CAL FIRE as High and Very High Fire Hazard Severity Zones, with the greatest risk in the Santa Monica Mountains and Simi Hills. Additionally, many of the critical facilities in the potable, recycled, and sanitary water systems, are in Fire Hazard Severity Zones, as seen in Figure 3-2. Critical potable water, recycled water, and sanitary sewer facilities located within a ¼ mile of a fire hazard severity zone are highlighted in the figure. The combined service area is projected to experience increasing wildfire risk through the end of the century due to a variety of factors including an increase in temperatures and prevalence of drought conditions. The decadal probability of wildfire is projected to increase from the historical baseline of 10 percent to 30 percent by the end of the century.[14]

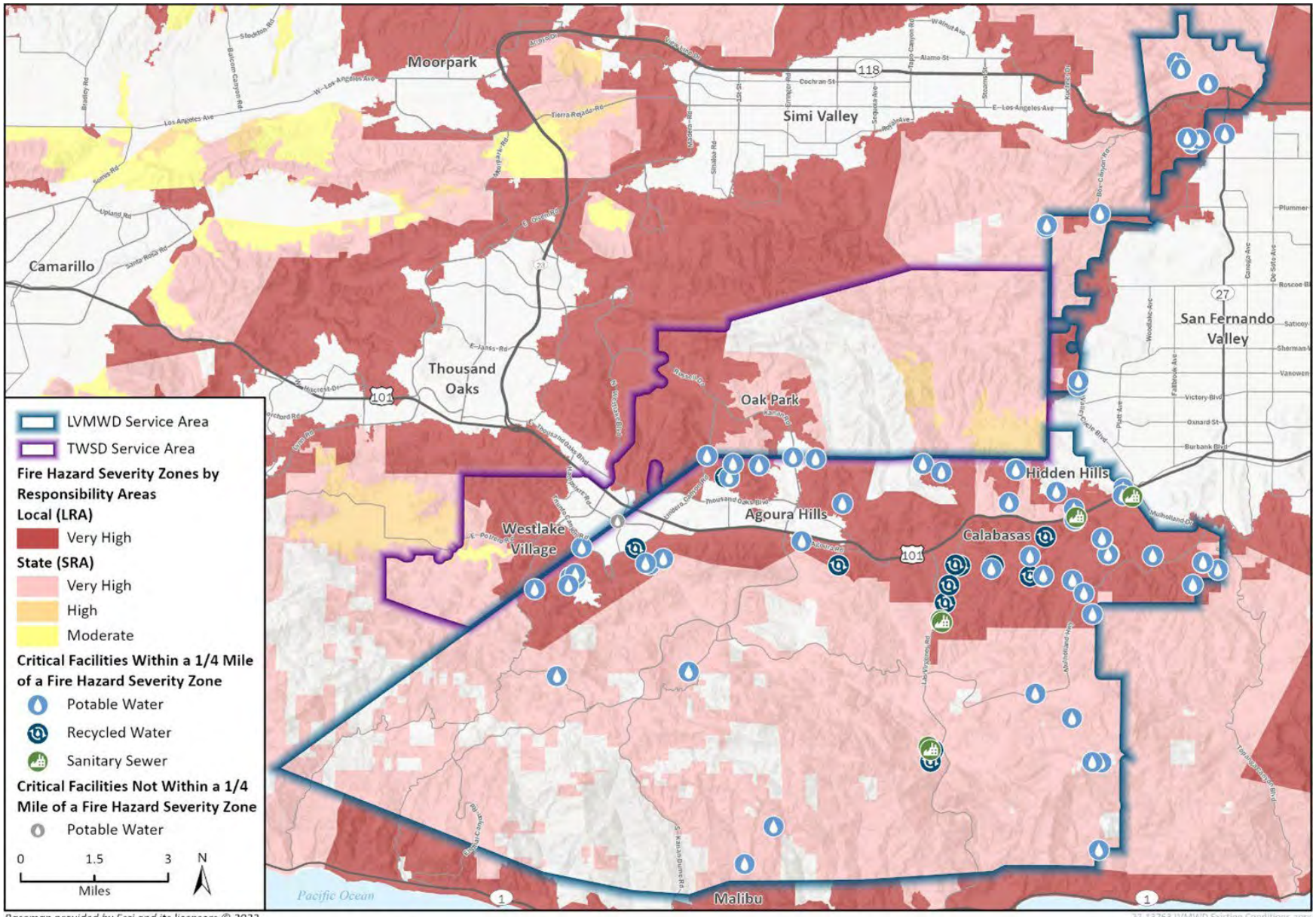
On November 8, 2018, the Woolsey Fire broke out in Ventura County and spread into combined service area, due to large amount of flammable vegetation and the influence of Santa Ana winds. On November 11, LVMWD's Board declared a state of emergency for the service area due to the significant impacts of the fire, authorizing response and recovery efforts and actions. LVMWD critical facilities and services were damaged and disrupted, including the Calabasas Headquarters. By November 9, LVMWD and the JPA lost power to nearly all of their critical facilities and backup generators were utilized to keep pump stations and other equipment operational. The Woolsey Fire footprint and location of LVMWD and JPA critical facilities are shown in Figure 3-3.



Photo credit: Peter Buschmann/U.S. Forest Service

14. California Energy Commission (CEC). 2023. Cal-Adapt. ***https://cal-adapt.org/tools/local-climate-change-snapshot****. Accessed July 2023*

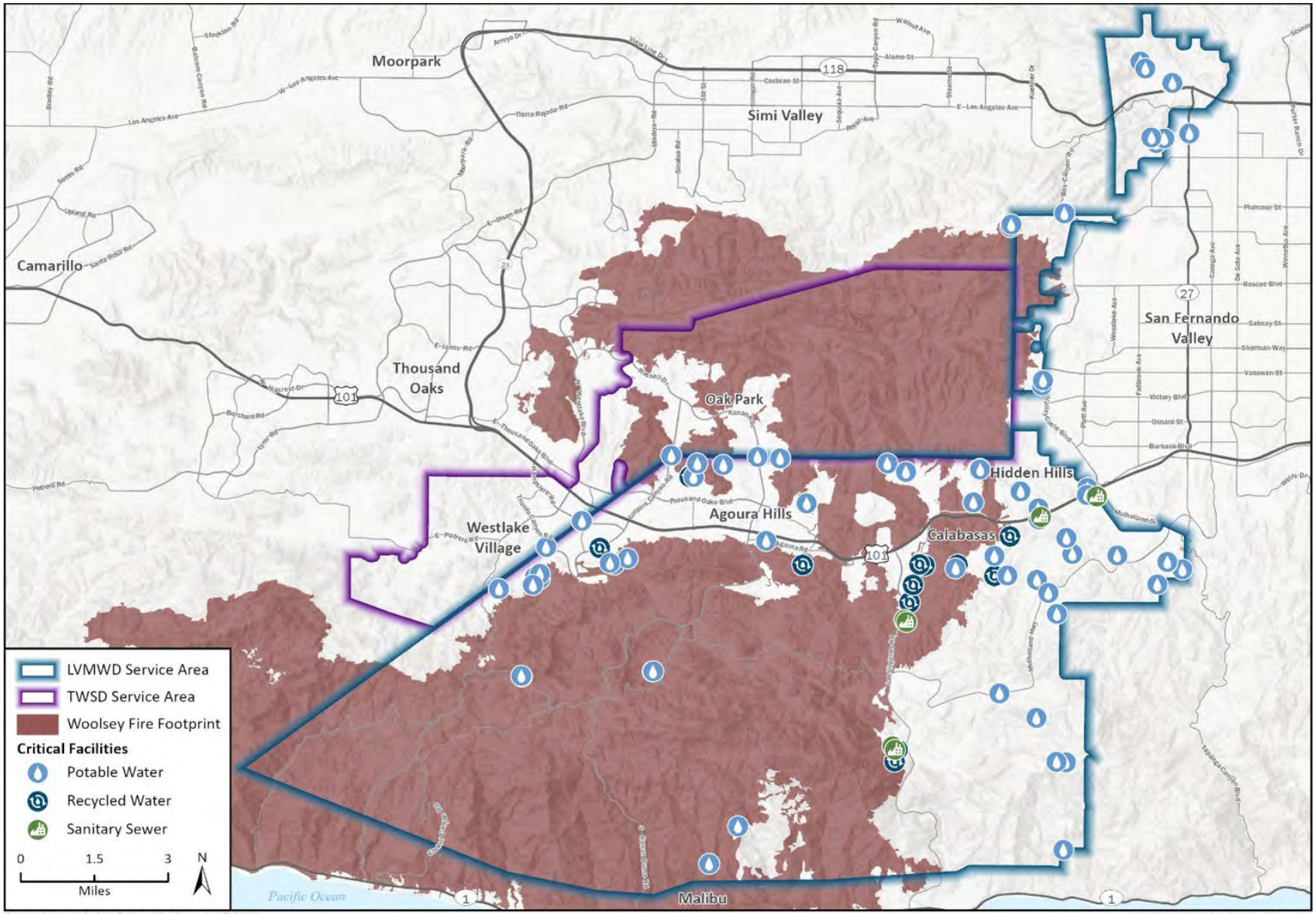
Figure 3-2. Fire Hazard Severity Zones and Critical Facilities



Basemap provided by Esri and its licensors © 2023.
Additional data provided by LVMWD, 2023; CAL FIRE, SRA 2007, LRA 2010 & 2012.

22-13763 LVMWD Existing Conditions.aprx
Fig 1 Fire Hazard Severity Zones and Critical Facilities

Figure 3-3. Woolsey Fire and Critical Facilities



Basemap provided by Esri and its licensors © 2023.
Additional data provided by LVMWD, 2023; CAL FIRE, FRAP, 2022.

27-13763 LVMWD Existing Conditions.aprx
Fig 2 Woolsey Fire and Critical Facilities

Flooding and Extreme Storms

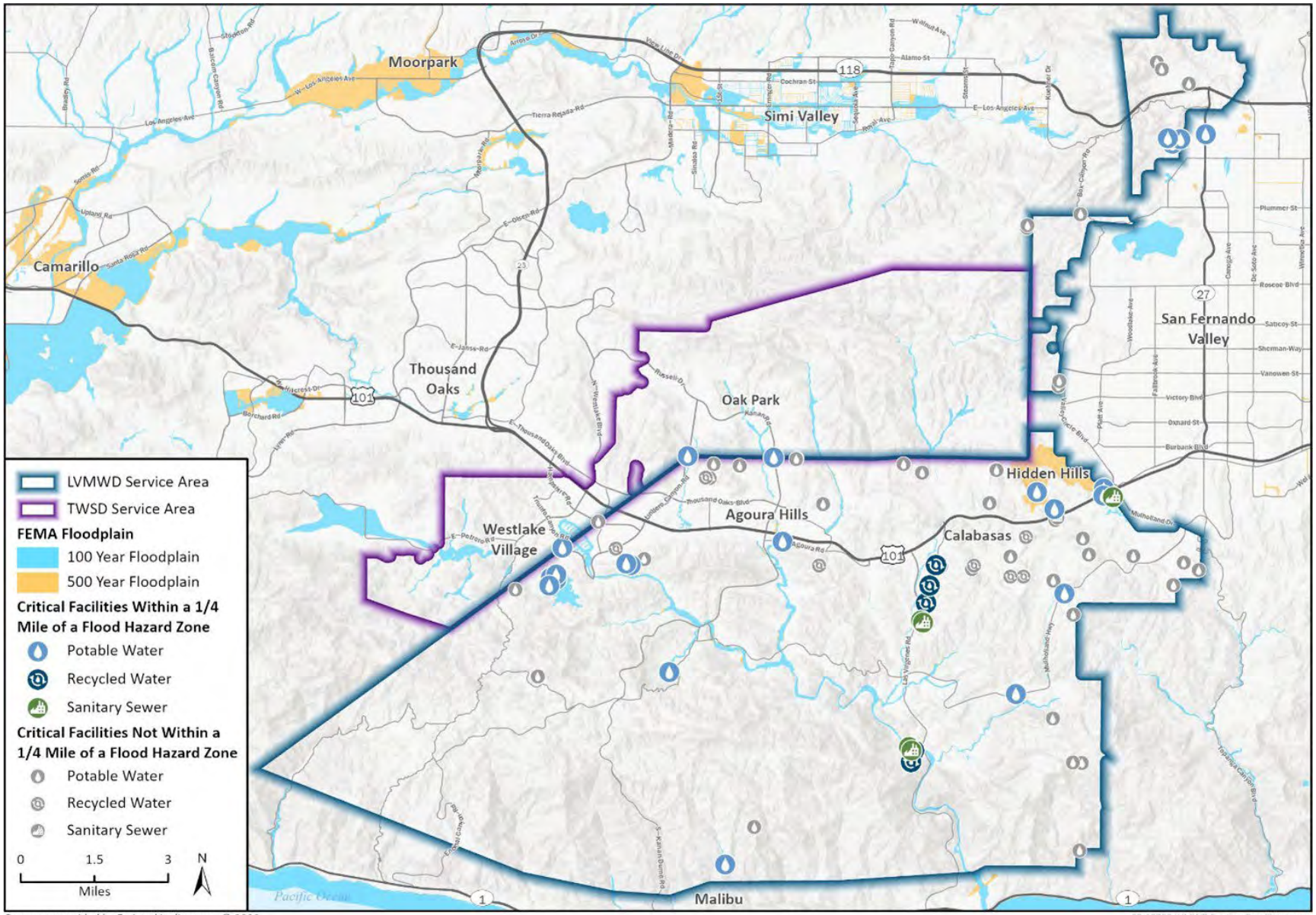
Low-lying areas in the combined service area are expected to experience more frequent flooding as a result of climate change. Riverine flooding is expected to increase as precipitation extremes increase. Waterways including the Malibu Creek are particularly susceptible to riverine flooding. Extreme precipitation events often produce large and high velocity flows, which may overwhelm stormwater systems, causing localized flooding. Climate models project that the frequency of atmospheric river/large storm events may increase in the future. Additionally, the peak season of atmospheric rivers is projected to lengthen, which may extend the flood-hazard season in Southern California.[15] The combined service area contains both 100-year and 500-year FEMA floodplains, with several critical facilities located in or near those floodplains, as seen in Figure 3-4. Critical potable water, recycled water, and sanitary sewer facilities located within a ¼ mile of a flood hazard zone are highlighted in Figure 3-4.



Photo credit: USFWS Pacific Southwest Region

15. *Hall et al. 2018. Los Angeles Region Report: California's Fourth Climate Change Assessment.* ***https://www.energy.ca.gov/sites/default/files/2019-11/Reg%20Report-%20SUM-CCCA4-2018-007%20LosAngeles_ADA.pdf****. Accessed July 2023*

Figure 3-4. FEMA Flood Zones and Critical Facilities



Basemap provided by Esri and its licensors © 2023.
Additional data provided by LVMWD, 2023; FEMA, 2021.

22-13763 LVMWD Existing Conditions.aprx
Fig 3 Flood Zones and Critical Facilities

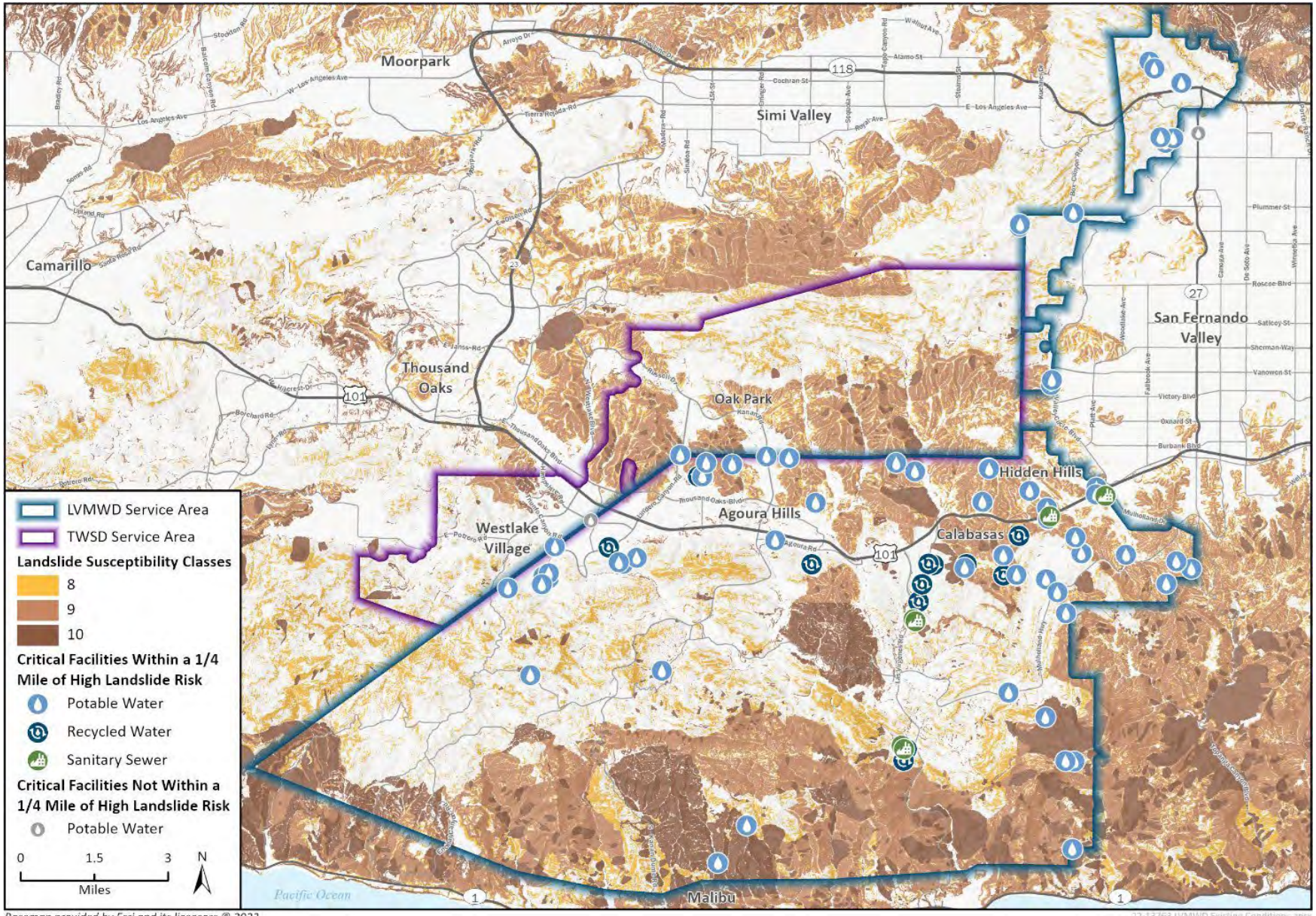
Landslides

Increased frequency and intensity of extreme precipitation events and wildfires may contribute to increased landslide susceptibility in the combined service area. Landslide susceptibility is typically highest in areas with unstable soils, weak rocks, and steep slopes. Landslide susceptibility in the combined service area is based on a range from 1 to 10, with 10 being the highest susceptibility. As seen in Figure 3-5, susceptibility levels of 8 to 10, are common throughout the combined service area, particularly in the Santa Monica Mountains and Simi Hills. Critical potable water, recycled water, and sanitary sewer facilities located within a ¼ mile of a high landslide susceptibility area are highlighted in the figure. Areas impacted by recent fires, including the 2018 Woolsey Fire, are especially prone to debris flow. Debris flow events are particularly dangerous because they often have little warning during severe storm events and are fast moving. Post-wildfire debris flows are likely to occur in burn scar for between 2-5 years after a wildfire, during significant rainfall events.[16]



16. U.S. Geological Survey (USGS). 2018. Emergency Assessment of Post-Fire Debris Flow Hazards. ***https://www.usgs.gov/programs/landslide-hazards/science/emergency-assessment-post-fire-debris-flow-hazards****. Accessed July 2023*

Figure 3-5. Landslide Susceptibility Areas and Critical Facilities



Basemap provided by Esri and its licensors © 2023.
Additional data provided by LVMWD, 2023; CGS, Map Sheet 58, 2018.

22-13763 LVMWD Existing Conditions.aprx
Fig 4 Landslide Susceptibility and Critical Facilities

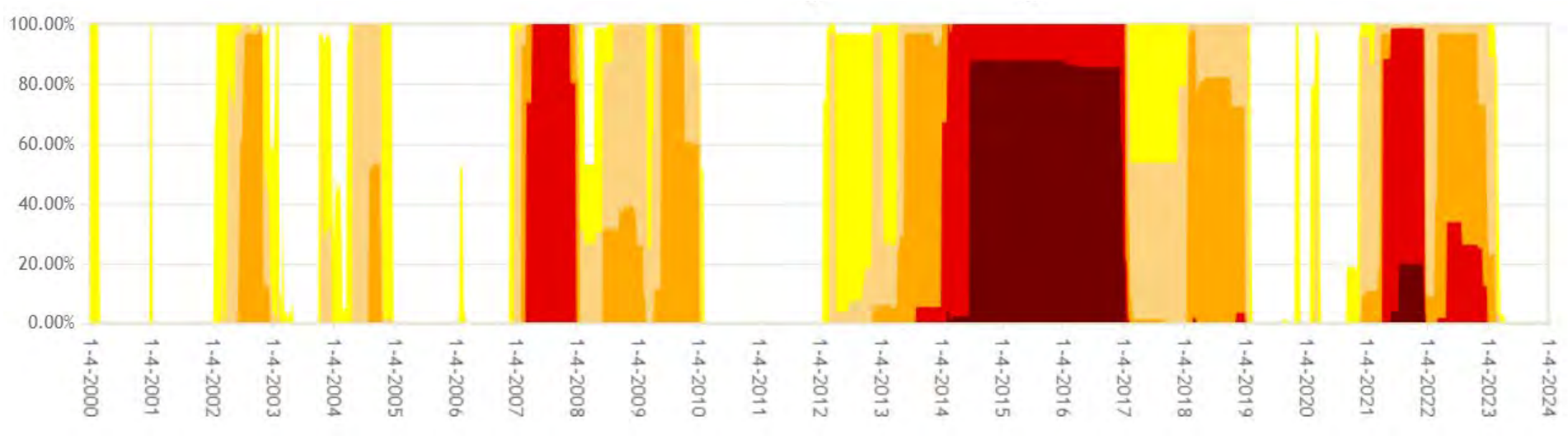
Extreme Heat

The number of extreme heat days per year is expected to increase in the combined service area. In this area, an extreme heat day occurs when the maximum temperature exceeds 97.4 °F. Historically, the area experiences three extreme heat days per year on average. By the end of the century, extreme heat days are expected to increase to between 16 and 34 days.[17]

Droughts

Climate change will increase the likelihood that low-precipitation years will coincide with above-average temperature years. Warming temperatures increase seasonal dryness and the likelihood of drought due to decreased supply of moisture and increased atmospheric demand for moisture as evaporation from bare soils and evapotranspiration from plants increases. Extremely dry years are projected to increase over Southern California, potentially doubling or more in frequency by the late-twenty-first century.[18] The U.S. Drought Monitor characterizes areas within LVMWD as Abnormally Dry (D0) and Moderate Drought (D1), as of May 2023. Drought intensity ranges from None to Exceptional Drought (D4). [19] The drought status of Los Angeles County for the past 23 years is shown in Figure 3-6. The county experienced moderate to exceptional drought periods in 2002, 2004-2005, 2007-2010, 2011-2019, and 2021-2023. Drought exposure will have a more prominent impact on LVMWD and the JPA through the SWP, as described below, than on local water sources, as a majority of its water supply is imported.

Figure 3-6. A Recent History of Drought Conditions in Los Angeles County



Source: U.S. Drought Monitor Los Angeles County CA. 2023. ***https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?fips_06037***

17. California Energy Commission (CEC). 2023. Cal-Adapt. ***https://cal-adapt.org/tools/local-climate-change-snapshot****. Accessed July 2023*

18. Hall et al. 2018. Los Angeles Region Report: California's Fourth Climate Change Assessment. ***https://www.energy.ca.gov/sites/default/files/2019-11/Reg%20Report-%20SUM-CCCA4-2018-007%20LosAngeles_ADA.pdf****. Accessed July 2023*

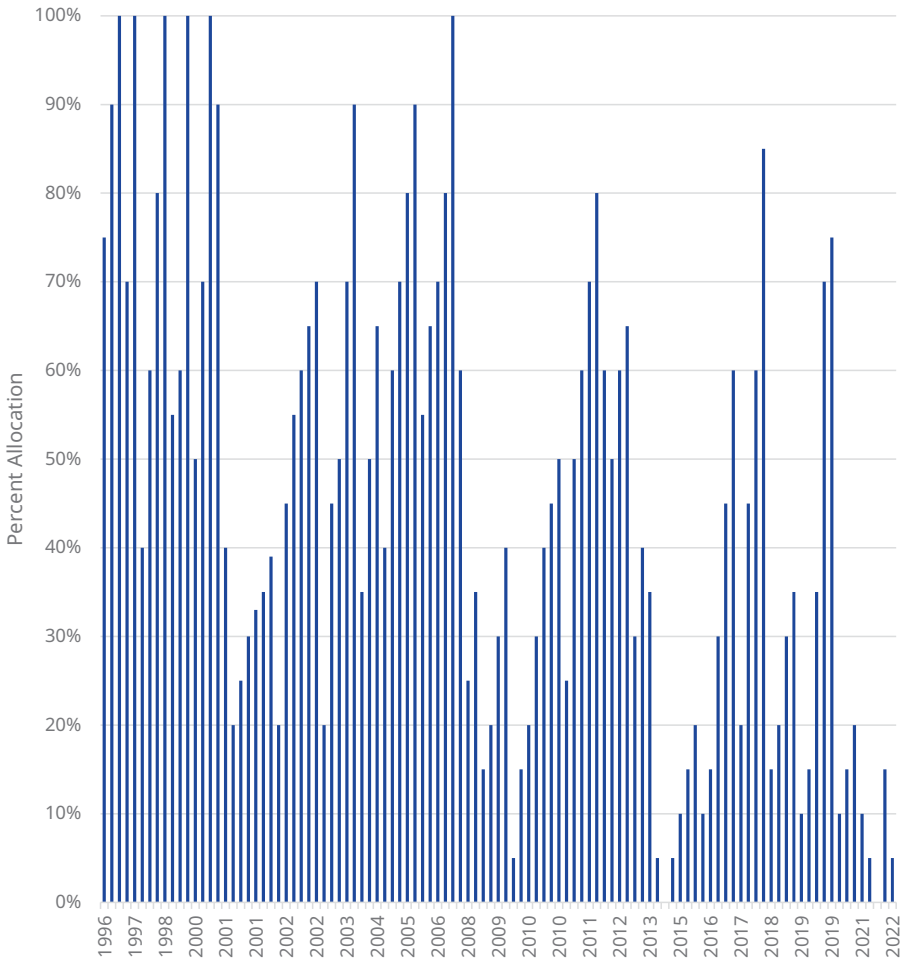
19. National Drought Mitigation Center at the University of Nebraska-Lincoln et al. 2023. U.S. Drought Monitor. ***https://droughtmonitor.unl.edu/****. Accessed July 2023*

State Water Project and California Department of Water Resources Climate Hazards

LVMWD primarily relies on potable water supplies provided by MWD. MWD receives water allocations from the SWP, a state water management project supervised by the California Department of Water Resources (DWR). As much as 10 percent of California's existing water supply could diminish by 2040 due to hotter and drier weather. Through the twenty-first century, there is expected to be increased evaporation, less snowfall, and increased consumption of water by soil, vegetation, and the atmosphere itself.[20] Over the past 40 years, there has been a clear downward trend in SWP (Table A) allocations (See Figure 3-7). In this context, imported water supply from the SWP is projected to be significantly impacted by climate change through the end of century. Several key reasons for SWP impacts include higher temperatures and shorter winters leading to reduction in Sierra Nevada and Colorado River Basin snowpack volume and increased evapotranspiration of watersheds from heightened temperatures. Smaller snowpack results in decreased flows in the Colorado River and greatly impacts SWP sourced water, which is designed to capture and store winter and spring runoff to prevent downstream flooding and deliver stored water during summer and fall months when it is needed. However, a diminished snowpack would result in larger volumes of runoff entering reservoirs during the winter and early spring and less runoff arriving in late spring and early summer, when it is needed. A reduced snowpack from increased temperatures also creates less retainable water and more surface water flowing to the ocean. This would lead to higher downstream flow during flood events and reduced late summer storage levels. Climate change is projected to bring about longer and more frequent periods of drought for the entire region. This prolonged drought occurrence may further impact LVMWD and the JPA as SWP allocations are likely to be reduced during such periods. These factors collectively pose significant challenges for water management and availability in the region.

California Department of Water Resources (DWR) analysis projects that there is a 22 percent probability that long-term average annual SWP deliveries will fall to approximately 50 percent of maximum allocations.[21]

Figure 3-7. State Water Project Table A Allocations



20. *California Natural Resources Agency et al. 2022. California's Water Supply Strategy: Adapting to a Hotter, Drier Future.* ***https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf****. Accessed July 2023*

21. *California Department of Water Resources (DWR). 2019. Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment.* ***https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Climate-Change-Program/Climate-Action-Plan/Files/CAP-III-Vulnerability-Assessment.pdf****. Accessed July 2023*

As DWR manages and oversees the SWP, LVMWD is reliant on its infrastructure and operations. DWR infrastructure are also exposed to various climate hazards that may have downstream impacts on LVMWD. With anticipated climate hazards, DWR faces an elevated exposure to increased short-term extreme hydrologic events. Several critical DWR facilities are particularly susceptible to flood hazards, potentially affecting SWP deliveries and overall operational continuity.

Furthermore, certain assets owned and managed by DWR are situated in wildfire hazard areas, making them vulnerable to damage or disruption. Additionally, all DWR locations are projected to experience more extreme heat days and higher average maximum temperatures due to climate change. Moreover, sea level rise is projected to increase the Sacramento-San Joaquin Delta's salinity, requiring extra Delta outflow to dilute the increasingly brackish Delta water to meet environmental standards. The extra Delta outflow comes at a cost of reducing Delta exports, meaning less water is available for distribution through the California Aqueduct to water suppliers and users located south of the Delta, including LVMWD. This scenario poses a challenge for water availability and management in the region, impacting various communities and water-related operations.[22]



22. California Department of Water Resources. 2019. Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment. ***https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Climate-Change-Program/Climate-Action-Plan/Files/CAP-III-Vulnerability-Assessment.pdf***. *Accessed July 2023*

CLIMATE CHANGE IMPACTS

Climate Change Impacts in the Combined Service Area

LVMWD and the JPA face significant risks associated with climate change impacts from the climate hazards described above. Their vulnerability increases when critical facilities, assets, and infrastructure are not designed, operated and/or maintained to function effectively under more extreme weather conditions or can be damaged by more extreme weather conditions. Critical facilities that are sensitive to climate hazards include pump stations, treatment facilities, LVMWD Headquarters, and other buildings and equipment associated with potable, recycled, and sanitary water systems.

LVMWD and JPA staff, with support from a consultant team, hosted a Climate Action and Adaptation Plan Strategy Workshop in March 2023 to assess climate risks to facilities, operations, and resources. As part of the workshop, a climate risk matrix was developed to assign a numerical risk score for each water sub-system based on each climate exposure. The matrix ranked each water sub-system from 1 to 9, with 1 indicating a system less impacted by a certain climate risk and 9 indicating a system most impacted by a certain climate risk. LVMWD's and JPA systems and sub-systems included in the matrix are seen below:

Potable Water

- MWD Imported Water
- Potable Distribution System
- Las Virgenes Reservoir
- Westlake Filtration Plant

Wastewater

- Sewer Collection System
- Tapia Wastewater Reclamation Plant
- Biosolids Composting (Rancho Las Virgenes Composting Facility)

Recycled/Pure Water

- Recycled Water Distribution
- Pure Water

Headquarters

- Central Operations and Administration



TWRF Aeration Basin

Wildfire

Table 3-1. Wildfire – Climate Risk Matrix Scoring

System	Sub-System	Climate Risk Score
Potable Water	MWD Imported Water	3
	Potable Water Distribution System	**8**
	Las Virgenes Reservoir	**8**
	Westlake Filtration Plant	**9**
Wastewater	Sewer Collection System	5
	Tapia Water Reclamation Plant	**7**
	Biosolids Composting	**8**
Recycled/ Pure Water	Recycled Water Distribution	6
	Pure Water	**7**
Headquarters	**Operations, Administration & Finance**	**8**



Staff ranked the potable water distribution system, Las Virgenes Reservoir, Westlake Filtration Plant, Rancho Las Virgenes Composting Facility, Tapia Water Reclamation Plant, Pure Water Las Virgenes-Triunfo, and District Headquarters at high risk to wildfire impacts, as seen in Table 3-1. All of these facilities are located in CAL FIRE Moderate, High, or Very High Fire Hazard Severity Zones and are susceptible to impacts from wildfire. During the Woolsey Fire, the Westlake Filtration Plant sustained damage to both the building itself and surrounding property. While the Plant still faces significant risk to future wildfire, the area around the building has been rehabilitated and now features a restored, water wise and more fire-resistant landscape.[23]

Wildfire can create risk of injury or death, damage to properties, critical facilities, and infrastructure, and need for evacuation. It can also trigger cascading impacts of worsened air quality, power outages and other service disruptions. During a wildfire event, LVMWD's water pipes, both underground and above-ground, may burn due to the heat from a wildfire. This may lead to contaminated drinking water which may threaten local public health and disrupt the District's service continuity. Wildfire may threaten the safety of LVMWD and JPA employees and customers and impede access to assets in need of repair or maintenance. Water supply availability may be disturbed if LVMWD supplies water for fighting fires. Additionally, sedimentation rates may increase in the Las Virgenes Reservoir if there is a large and/or frequent fire in the area surrounding the reservoir. Recent research conducted by the United States Geological Survey, shows that an increase in magnitude and frequency of wildfires is expected to double the rates of sedimentation in one-third of the West's large watersheds, reducing reservoir storage and affecting water supplies. Increased sedimentation can result in lost reservoir storage and decrease water quality. LVMWD may face additional challenges treating water from the reservoir if it is contaminated with ash, sediments, and contaminates created by active burning.[24]

Utility providers may temporarily shut off power to the combined service areas when wildfire risk is particularly high; this is referred to as a Public Safety Power Shutoff (PSPS). If a PSPS event lasts several days and involves the entire grid serving the District's water systems, service continuity may be disrupted, and staff may not be able to provide all its customers with water. Wildfire can also lead to smoke and associated air toxins which can lead to worsening air quality, creating or exacerbating respiratory issues for sensitive customers and employees and impact indoor areas without adequate air filtration systems.

23. LVMWD. 2020. Westlake Filtration Plant. ***https://www.lvmwd.com/our-services/drinking-water/facilities-infrastructure/westlake-filtration-plan****. Accessed July 2023*

24. Bland. 2017. The West's Wildfires Are Taking a Toll on Reservoirs. ***https://static1.squarespace.com/static/55dc9bade4b05820bf02d414/t/5a149cfe53450a59dc531297/1511300351736/Watershed1%28NewsDeeply%29.pdf****. Accessed July 2023*

Extreme Heat

Table 3-2. Extreme Heat – Climate Risk Matrix Scoring

System	Sub-System	Climate Risk Score
Potable Water	**MWD Imported Water**	**7**
	Potable Water Distribution System	4
	Las Virgenes Reservoir	**7**
	Westlake Filtration Plant	**7**
Wastewater	Sewer Collection System	3
	Tapia Water Reclamation Plant	4
	Biosolids Composting	5
Recycled/ Pure Water	**Recycled Water Distribution**	**7**
	Pure Water	5
Headquarters	Operations, Administration & Finance	4

Various infrastructure, equipment, and resources can be damaged, strained, or diminished during extreme heat events. Staff ranked MWD Imported Water, the Las Virgenes Reservoir, Westlake Filtration Plant, and Recycled Water Distribution at high risk to extreme heat, as seen in Table 3-2. As average maximum temperatures and extreme heat days, both in the combined service area and throughout California, are projected to increase through the century, evaporation of imported water and water in the Las Virgenes Reservoir is expected to increase. This may lead to or exacerbate future water scarcity issues.[25] Extreme heat and increased average maximum temperatures can lead to harmful algal blooms which can contaminate water supplies and require increased water treatment capacities.[26] Additionally, certain types of algal blooms produce dangerous toxins that can sicken people and wildlife. The overgrowth of algae consumes oxygen and blocks sunlight from underwater plants, potentially leading to the die off of aquatic life.[27]

Additionally, the ambient operating temperature within which the equipment operates is a significant factor in the equipment's lifespan. High ambient operating temperatures may lead to a reduction of the lifespan for motors and related equipment within LVMWD and JPA systems. LVMWD and the JPA may face increased costs associated with the additional cooling required for certain facilities and assets.[28] LVMWD has historically faced pump operating issues due to extreme heat impacts. During an extreme heat event, electricity utilities may turn off power in a PSPS in order to mitigate wildfire risk. If a PSPS event lasts several days and involves the entire grid serving LVMWD's and the JPA's systems, service continuity may be disrupted, and service disruptions may result to some or all customers. Future extreme heat events may pose significant health risk to LVMWD and JPA employees and customers who may suffer from heat stroke, heat exhaustion, or dehydration. Extreme heat may also lead to vegetation die-off, which can exacerbate wildfire risk in areas surrounding LVMWD and JPA facilities.



25. *Friedrich et al. 2018. Reservoir Evaporation in the Western Unites States: Current Science, Challenges, and Future Needs.* ***https://journals.ametsoc.org/view/journals/bams/99/1/bams-d-15-00224.1.xml****. Accessed July 2023*
26. *EPA. 2013. Impacts of Climate Change on the Occurrence of Harmful Algal Blooms.* ***https://www.epa.gov/sites/default/files/documents/climatehabs.pdf*** *Accessed July 2023*
27. *EPA. The Effects: Dead Zones and Harmful Algal Blooms.* ***https://www.epa.gov/nutrientpollution/effects-dead-zones-and-harmful-algal-blooms#:~:text=Dead%20zones%20are%20areas%20of,excess%20nutrients%20from%20upstream%20sources****.. Accessed July 2023*
28. *Water Utility Climate Alliance and Association of Metropolitan Water Agencies. 2020. It's Hot and Getting Hotter: Implications of Extreme Heat on Water Utility Staff and Infrastructure, and Ideas for Adapting.* ***https://www.amwa.net/system/files/linked-files/Heat%20Impacts%20copy.pdf*** *Accessed July 2023*

Drought

Table 3-3. Drought – Climate Risk Matrix Scoring

System	Sub-System	Climate Risk Score
Potable Water	**MWD Imported Water**	**9**
	Potable Water Distribution System	3
	Las Virgenes Reservoir	**9**
	Westlake Filtration Plant	6
Wastewater	Sewer Collection System	4
	Tapia Water Reclamation Plant	**8**
	Biosolids Composting	6
Recycled/ Pure Water	**Recycled Water Distribution**	**8**
	Pure Water	**9**
Headquarters	**Operations, Administration & Finance**	**9**

LVMWD and JPA staff ranked MWD Imported Water, the Las Virgenes Reservoir, Pure Water, and District Headquarters at high risk to drought impacts, as seen in Table 3-3. Warming temperatures combined with more frequent dry years will exacerbate drought impacts. Drought can lead to vegetation stress and die-off, which may exacerbate wildfire risk in the combine service area. Extended drought conditions may lead to a loss of District revenue and increased water rates which may disproportionally impact under-resourced populations. Drought can also impact the reliability of local water resources. While LVWMD's primary water supplies are imported from MWD, it also sources some groundwater supplies from the Russell Valley Basin, which is used to supplement recycled water system.[29] During periods of drought, local groundwater sources may run dry if there is not enough consistent reliable recharge from precipitation. Drought conditions may also have impacts to water stored in Las Virgenes Reservoir, which stores treated potable water from MWD. Specific drought impacts to imported water supplies is discussed below in the Climate Change Impacts to Imported Potable Water Supplies section.



29. LVMWD. 2020. Urban Water Management Plan. ***https://www.lvmwd.com/home/showpublisheddocument/13459/637616788962730000*** *Accessed July 2023*

Flood and Extreme Precipitation

Table 3-4. Flood and Extreme Precipitation – Climate Risk Matrix Scoring

System	Sub-System	Climate Risk Score
Potable Water	MWD Imported Water	5
	Potable Water Distribution System	5
	Las Virgenes Reservoir	3
	Westlake Filtration Plant	3
Wastewater	**Sewer Collection System**	**7**
	Tapia Water Reclamation Plant	5
	Biosolids Composting	3
Recycled/ Pure Water	Recycled Water Distribution	3
	Pure Water	2
Headquarters	Operations, Administration & Finance	5

LVMWD and JPA staff ranked the sewer collection system at high risk to flooding and extreme precipitation impacts, as seen in Table 3-4. During extreme precipitation events, power conveyance and distribution infrastructure can be damaged by wind and heavy rain which may cause service disruptions. Electrical equipment, operational, and administrative assets can be vulnerable if exposed to water damage. During heavy precipitation events, localized flooding may occur if storm-drain infrastructure or Malibu Creek in the combined service area becomes overwhelmed. Localized flooding may damage or inundate properties, structures, infrastructure, and other assets. It may also close streets and inhibit mobility of certain locations. Heavy rainfall may increase pollutant runoff and sedimentation into Las Virgenes Reservoir and other potable water sources. Contaminated runoff and sedimentation may require extra treatment capacities which may increase costs to LVMWD and the JPA.[30] Severe flooding may cause erosion issues near sewer lines and may lead to increased risks of flooding impacts to the sewer collection system. As of 2014, only two of the four pumps in the sewer collection system are equipped with variable pumping capacity (variable frequency drives) and have limited abilities for handling peak storm flows. Flooding and increased precipitation may lead to greater flows into Malibu Creek which may increase turbidity, contamination, and erosion. Extreme precipitation events may also oversaturate spray fields, overwhelming them and potentially impacting operations of water disposal.[31]


Photo credit: USFWS Pacific Southwest Region

30. EPA. 2023. Climate Adaptation and Source Water Impacts. ***https://www.epa.gov/arc-x/climate-adaptation-and-source-water-impacts***

31. LVMWD and Triunfo Sanitation District. 2014. Sanitation Master Plan. ***https://www.lvmwd.com/home/showpublisheddocument/4321/635392121338370000*** *Accessed July 2023*

Landslide

Table 3-5. Landslide – Climate Risk Matrix Scoring

System	Sub-System	Climate Risk Score
Potable Water	MWD Imported Water	2
	Potable Water Distribution System	6
	Las Virgenes Reservoir	4
	Westlake Filtration Plant	3
Wastewater	Sewer Collection System	6
	Tapia Water Reclamation Plant	2
	Biosolids Composting	2
Recycled/ Pure Water	Recycled Water Distribution	2
	Pure Water	6
Headquarters	Operations, Administration & Finance	3

LVMWD and JPA staff ranked the potable water distribution system, sewer collection system, and Pure Water at risk to landslides, as seen in Table 3-5. Landslides may damage critical facilities, structures, and infrastructure. This can cause service disruptions, impact community members, and isolate certain areas if roadways are compromised. Landslides can directly damage buildings and facilities by disrupting structural foundations either by deforming the ground on which an asset is located or by physically impacting an asset. [32] Facilities and infrastructure in and adjacent to the Woolsey Fire footprint are particularly susceptible to debris flows. Debris flows and landslides can negatively impact the sewage conveyance system and Tapia Wastewater Reclamation Facility by sending more sediment and debris into the system than the plant can take out. Landslides may also increase sedimentation in potable water sources and the Virgenes Reservoir, which may lead to lost reservoir storage and water quality impacts.



32. USGS. 2008. The Landslide Handbook – A Guide to Understanding Landslides. ***https://pubs.usgs.gov/circ/1325/pdf/C1325_508.pdf****. Accessed July 2023*

Climate Change Impacts to Imported Potable Water Supply

Long-term persistent hydrologic changes in California, including increases in the frequency, duration, and severity of dry periods and earlier Sierra Nevada snowmelt-based runoff, may significantly impact the operations of the SWP. Hydrologic changes can affect water quantity and quality, and therefore the ecosystems supported by the Sierra Nevada watersheds SWP relies on. Recent DWR analysis predicts that SWP delivery performance is at risk of climate change and will most likely fall short in the future. As outlined above in the SWP Climate Hazards section, there is a 22 percent probability that long-term average annual SWP deliveries will fall to approximately 50 percent maximum allocations. As imported water from the SWP is LVMWD's primary water source and supplies virtually all potable water demands, decreases in future allocations may lead to water shortages and loss of revenue to LVMWD. LVMWD and the JPA are moving forward with the construction and implementation of the Pure Water Project Las Virgenes-Triunfo, which will take recycled water from the Tapia Water Reclamation Facility and treat it to provide up to 30 percent of LVMWD's future potable water needs, locally. As future imported water supply becomes more volatile and unpredictable, the Pure Water Project will mitigate imported water reliability concerns by providing a long-term local potable water supply.[33] Wildfire, flooding, and landslides in the Sierra Nevada's or in other areas adjacent to SWP infrastructure and supplies, may lead to water quality impacts (i.e. from ash, contaminants, or sediments), which may have downstream impacts to imported water supplies. Severe flooding, extreme storms, and wildfire events may physically damage infrastructure, potentially disrupting SWP services statewide, including those to LVMWD.[34] Pictured below is the 5 million gallon tank at Las Virgenes Reservoir.



33. LVMWD. 2022. Pure Water Project Achieves Major Milestone. **https://www.lvmwd.com/Home/Components/News/News/5988/22**. Accessed July 2023

34. California Department of Water Resources (DWR). 2019. Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment. **https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Climate-Change-Program/Climate-Action-Plan/Files/CAP-III-Vulnerability-Assessment.pdf**. Accessed July 2023

4.

GHG EMISSIONS INVENTORY AND FORECAST



LVMWD AND JPA OPERATIONAL BOUNDARY AND GHG EMISSIONS SOURCES

As part of the LVMWD and JPA CAAP development process, a multi-year inventory of operational GHG emissions was prepared for 2000, 2012 and 2021. The inventory provides a measurement of GHG emissions associated with the operation and maintenance of LVMWD and JPA infrastructure, including buildings, facilities, fleet, equipment, as well as emissions from wastewater, waste streams, and employee commutes.[35]

Conducting a GHG inventory is an important component of the CAAP development process, as it allows LVMWD, the JPA, and their stakeholders to understand which activities contribute substantially to their GHG emissions footprint. The inventory also provides the groundwork for forecasting future GHG emissions and developing GHG emissions reduction targets.

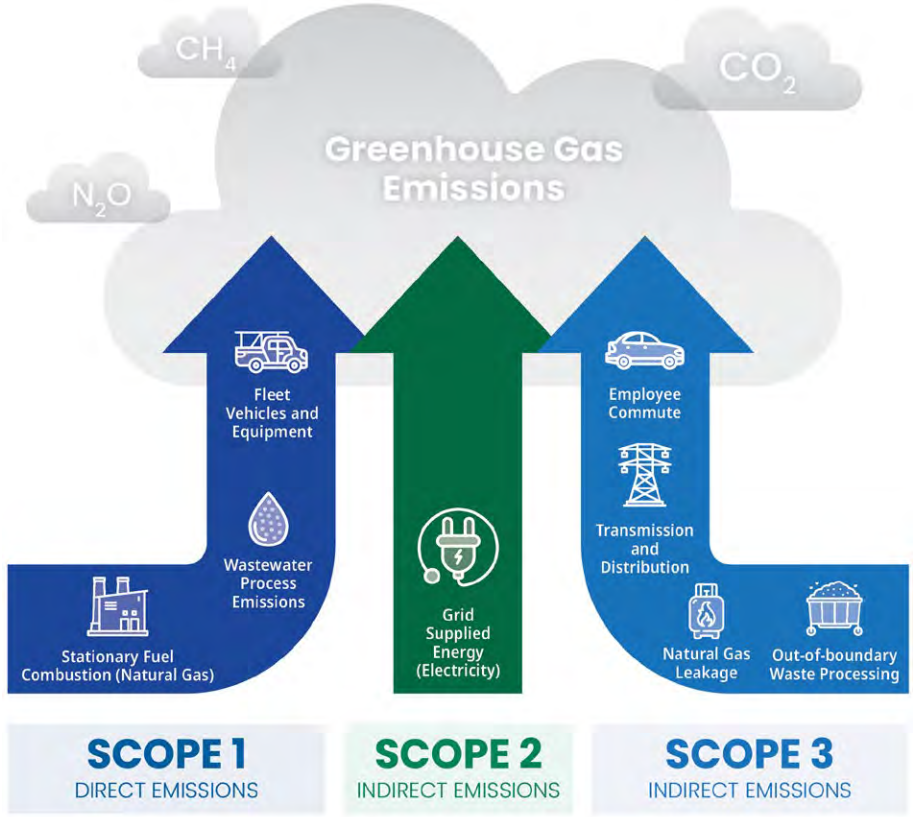
35. LVMWD acts as Administering Agent for the JPA, a long-term partnership between LVMWD and the Triunfo Water and Sanitation District (TWSD). The JPA co-owns, and LVMWD operates and maintains, several shared wastewater facilities, including the Tapia Wastewater Reclamation Facility, a backbone reclamation water main, the Rancho Las Virgenes Composting Facility, spray fields for seasonal disposal of excess recycled water, and a 5-megawatt solar farm. GHG emissions associated with the operation and maintenance of TWSD's infrastructure are not measured as part of this inventory.

The LVMWD and JPA GHG emissions inventory is consistent with standard reporting protocols from the World Resources Institute (WRI), World Business Council for Sustainable Development (WBCSD), and the International Council for Local Environmental Initiatives (ICLEI).[36,37] The WBCSD and WRI's Corporate Standard GHG Protocol requires that an inventory quantify emissions from all GHG-generating activities that fall under some level of the entity's operational control.[38] GHG-generating activities are categorized into three "scopes" which separate GHG emissions under an organization's operational control into direct and indirect GHG emissions.

- **Scope 1** consists of all direct GHG emissions that occur from sources that are controlled by the organization. For LVMWD and the JPA, these sources include natural gas consumption, vehicle fleet and equipment usage, and wastewater processing.
- **Scope 2** consists of indirect GHG emissions associated with the consumption of purchased or acquired electricity, steam, heat, or cooling. For LVMWD and the JPA, these emissions sources include the consumption of purchased of electricity.
- **Scope 3** consists of all other indirect GHG emissions not covered under Scope 2, such as emissions resulting from the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, outsourced activities, and waste disposal. For LVMWD and the JPA, these emissions sources include natural gas leakage,[39] transmission and distribution losses,[40] employee commute, and solid waste disposal.[41]

GHG-generating activities that were included in the inventory are categorized by scope as shown in Figure 4-1. These activities include natural gas combustion, wastewater process emissions, vehicle fleet and equipment usage, electricity usage, out-of-boundary waste processing, electricity transmission and distribution, natural gas leakage, and employee commute. Activities include both LVMWD-only and JPA facilities and operations.

Figure 4-1. LVMWD and JPA GHG Emissions by Scope



36. *WRI and WBCSD. The Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (GHG Protocol). Revised Edition. Accessed at* ***https://ghgprotocol.org/corporate-standard****.*
37. *ICLEI - Local Governments for Sustainability. Local Government Operations Protocol (May 2010). Version 1.1. Accessed at* ***https://s3.amazonaws.com/icleiusaresources/lgo_protocol_v1_1_2010-05-03.pdf****.*
38. *An organization has operational control over an operation when they have the full authority to introduce and implement its operating policies at the operation. Operational control can be established by wholly owning an operation or having full authority to introduce and implement GHG or non-GHG related policies.*
39. *Natural gas consumption is associated with some amount of leakage as a result of moving natural gas from the location where it was generated to the facility where it is used. These are GHG emissions that occur upstream and outside of LVMWD's operational control.*
40. *Electricity usage is associated with some amount of transmission and distribution losses as a result of moving electricity from the location where it was generated to the facility where it is used. These are GHG emissions that occur upstream and outside of LVMWD's operational control.*
41. *GHG emissions associated with solid waste disposal include those GHG emissions associated with, fuel combustion for landfill equipment, and waste decomposition emissions once landfilled.*

Conducting the multi-year inventory for LVMWD and JPA operations consisted of collecting summary data on each GHG-generating activity shown in Figure 4-1 for each year (2000, 2012, 2021), then converting the activity data to GHG emissions using GHG emissions factors such as those from the U.S. Environmental Protection Agency (EPA), ICLEI, and local utilities (e.g., Southern California Edison). Water districts can produce fluctuating GHG emissions year to year depending on the source of water delivered and the extent of water deliveries and wastewater treatment services provided, as well as environmental conditions. To address this variability, LVMWD and the JPA elected to conduct a multi-year inventory over two decades, rather than a single-year inventory. This multi-year inventory captures some of variability and provides an understanding of LVMWD and the JPA GHG emissions over a broader time period. Developing historic and current GHG inventories also allows LVMWD and the JPA to memorialize all the projects it has completed over the last 10 years that have reduced GHG emissions but have not been individually tracked. The following sections detail the progress LVMWD and the JPA have made on reducing GHG emissions through projects including energy efficiency improvements and solar panel installations.

The 2000 GHG inventory reflects conditions before recent GHG-reduction projects were implemented and serves as a baseline. The 2012 GHG inventory reflects conditions during the implementation of GHG-reduction projects. The 2021 GHG inventory is based on the most recent year in which data is completely available and reflects conditions after recent GHG-reduction projects have been completed.



HISTORIC AND CURRENT GHG EMISSIONS

In 2000, major sources of emissions associated with LVMWD and the JPA were electricity usage (79 percent of total emissions) and natural gas usage (7 percent of total emissions). All other sources were less than 5 percent of total emissions. In 2000, 22,804 AF of potable water and 4,904 AF of recycled water were delivered. The results of the 2000 GHG emissions inventory for LVMWD and the JPA are shown in Table 4-1.

In 2012, major sources of emissions associated with LVMWD and the JPA were electricity usage (82 percent of total emissions) and natural gas usage (5 percent of total emissions). All other sources were 5 percent or less of total emissions. These results show GHG emissions remained relatively constant between 2000 and 2012. While most emissions sources did not experience significant changes, GHG emissions from natural gas and natural gas leakage decreased by about 38 percent. This was primarily due to decreased natural gas usage, as staff had previously been procuring additional natural gas for an on-site fuel cell that was discontinued in the early 2000s. In 2012, 21,519 AF of potable water and 5,136 AF of recycled water were delivered. The results of the 2012 GHG emissions inventory for LVMWD and the JPA are shown in Table 4-2.

Table 4-1. LVMWD and JPA 2000 GHG Emissions Inventory

GHG-Generating Activity	Scope	2000	Average % Contribution to Total
Vehicle Fleet & Equipment	Scope 1	330	2%
Natural Gas	Scope 1	1,088	7%
Wastewater	Scope 1	253	2%
Electricity	Scope 2	11,643	79%
Electricity T&D Losses	Scope 3	563	4%
Natural Gas Leakage	Scope 3	305	2%
Employee Commute	Scope 3	322	2%
Waste	Scope 3	143	1%
Total in Metric Tons CO_2e		**14,647**	**100%**

Table 4-2. LVMWD and JPA 2012 GHG Emissions Inventory

GHG-Generating Activity	Scope	2012	Average % Contribution to Total
Vehicle Fleet & Equipment	Scope 1	323	2%
Natural Gas	Scope 1	679	5%
Wastewater	Scope 2	221	2%
Electricity	Scope 3	12,028	82%
Electricity T&D Losses	Scope 3	693	5%
Natural Gas Leakage	Scope 3	190	1%
Employee Commute	Scope 3	444	3%
Waste	Scope 3	143	1%
Total in Metric Tons CO_2e		**14,721**	**100%**

In 2021, major sources of emissions associated with LVMWD and the JPA were electricity usage (78 percent of total emissions) and employee commute (5 percent of total emissions). All other sources were less than 5 percent of total emissions. These results show a trend of decreasing GHG emissions since 2012, primarily due to decreasing GHG emissions from electricity. Emissions reductions from electricity were driven by an increase in carbon free electricity procured by LVMWD and the JPA's electricity provider in response to California's Renewable Portfolio Standard (RPS), which has reduced emissions in the electricity sector since 2012.[42] LVMWD and the JPA have brought online two solar fields since 2012, one megawatt in February 2014 and a 4-megawatt expansion in January 2021. These solar fields generated over 9,000 megawatt hours of solar in 2021, offsetting the electricity use of the Tapia Water Reclamation Facility. LVMWD and the JPA have also made energy efficiency improvements from 2012 to 2021, that have contributed to the decrease in electricity emissions. Improvements included the conversion of lights at several facilities including Headquarters to LEDs and upgrading aging air blowers and an air diffusion system at the Tapia Water Reclamation Facility. The 2021 GHG emissions inventory also showed nearly a 60 percent decrease in natural gas emissions compared to 2012. In 2021, 20,546 AF of potable water and 5,300 AF of recycled water were delivered. Water supply and service population were not significantly variable between 2000 and 2021. LVMWD and JPA service population grew by 11 percent and total water deliveries decreased by 7 percent. LVMWD's operational personnel nearly tripled from 2000 to 2021 to accommodate growing services and operations. The results of the 2021 GHG emissions inventory for LVMWD and the JPA are shown in Table 4-3.

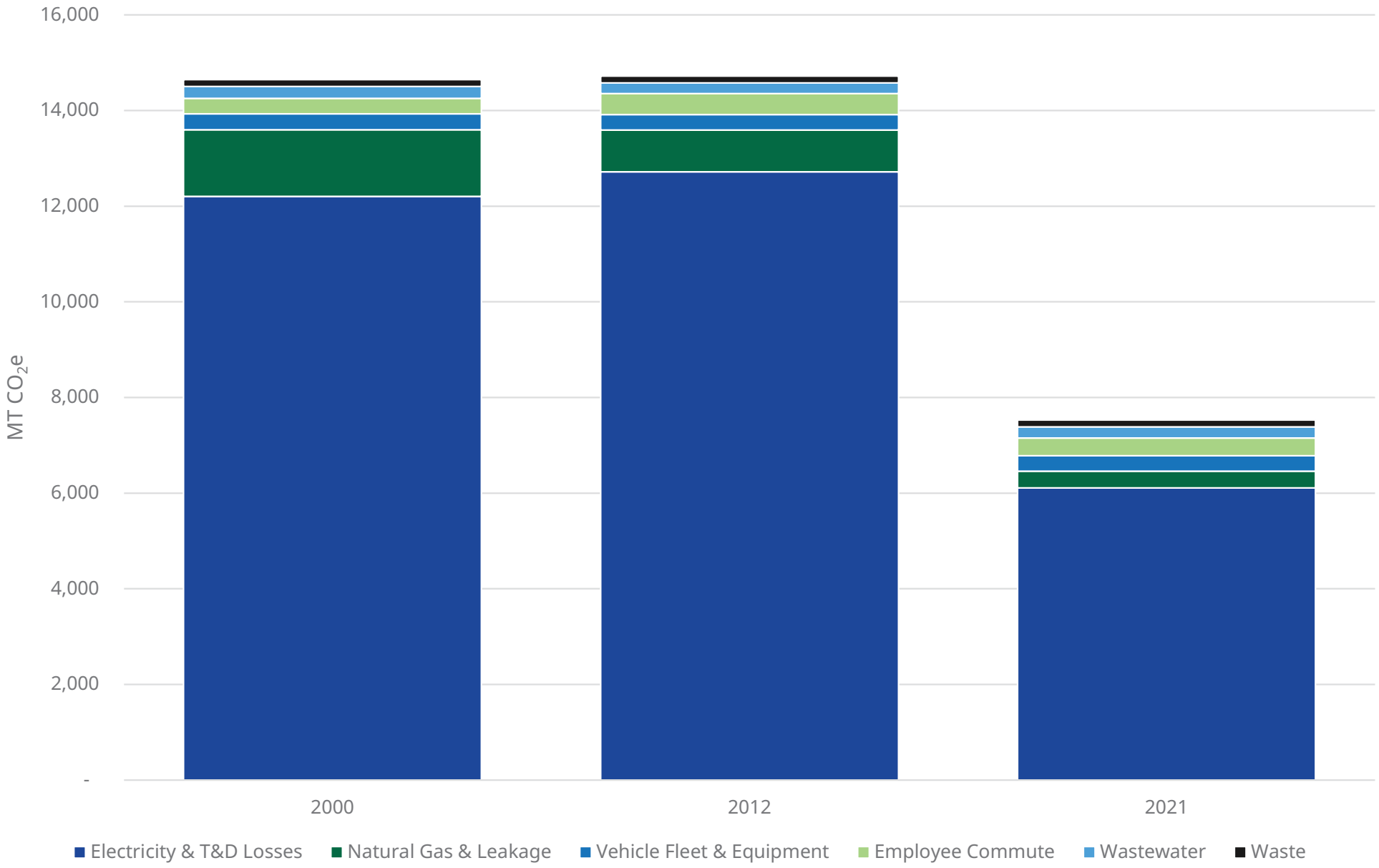
Table 4-3. LVMWD and JPA 2021 GHG Emissions Inventory

GHG-Generating Activity	Scope	2021	Average % Contribution to Total
Vehicle Fleet & Equipment	Scope 1	323	4%
Natural Gas	Scope 1	273	4%
Wastewater	Scope 2	232	3%
Electricity	Scope 3	5,853	78%
Electricity T&D Losses	Scope 3	258	3%
Natural Gas Leakage	Scope 1	76	1%
Employee Commute	Scope 3	371	5%
Waste	Scope 3	143	2%
Total in Metric Tons CO_2e		**7,528**	**100%**

GHG emissions have decreased by nearly 49 percent from 2012 to 2021, primarily due to significant decreases in natural gas and electricity consumption due mainly to utilizing carbon-free electricity from development of the 5 MW solar project. GHG emissions from 2000, 2012, and 2021 inventories are shown by sector in Figure 4-2.

42. California's RPS requires all retail electricity providers in California to procure 50 percent of their electricity supply from carbon-free resources by 2026, 60 percent by 2030, 90 percent by 2035, 95 percent by 2040 and 100 percent by 2045. This will effectively reduce the GHG emissions intensity of electricity across the state, including the electricity LVMWD purchases from Southern California Edison.

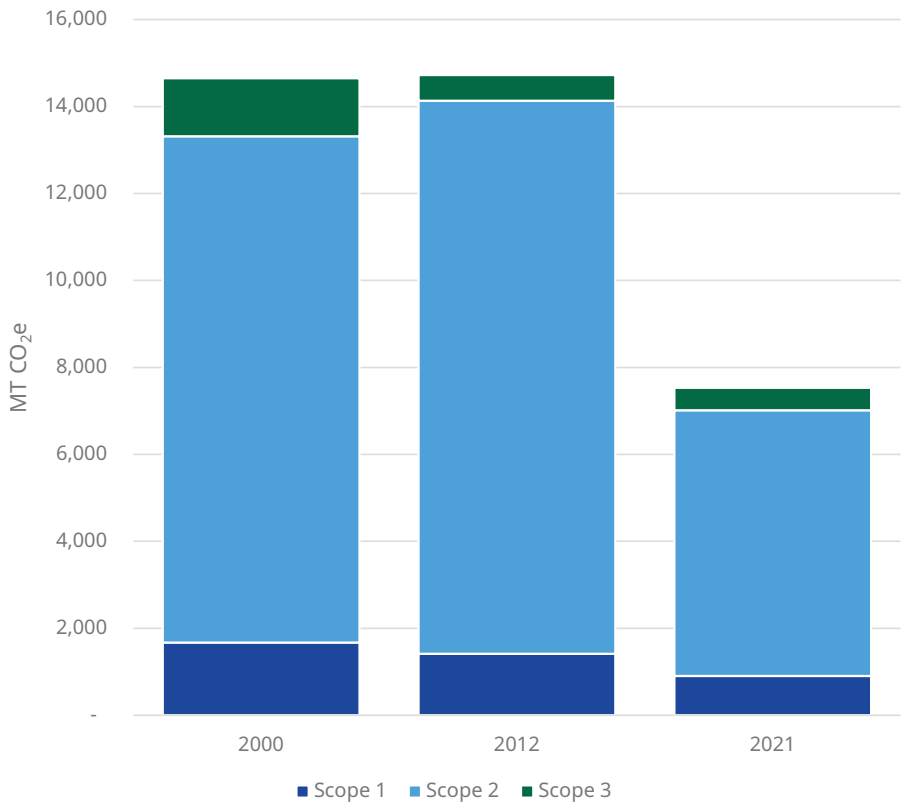
Figure 4-2. LVMWD and JPA GHG Emissions Inventory by Sector



GHG Emissions by Scope

In 2021, the majority of GHG emissions occur under Scope 2 (78 percent of total emissions), followed by Scope 1 (11 percent of total emissions) and Scope 3 (11 percent of total emissions). As such, the largest portion of GHG emissions generated by LVMWD and the JPA (i.e., Scope 1 and Scope 2 emissions) are under their operational control. The largest source of emissions – Scope 2 emissions associated with electricity usage – will continue to decrease over time as electricity sources become carbon free due to the California's RPS.4 GHG emissions by scope (1- direct emissions, 2- indirect emissions, and 3- indirect emissions) are shown in Figure 4-3 for 2000, 2002, and 2021.

Figure 4-3. LVMWD and JPA GHG Emissions Inventory by Scope



Scope 1 – Direct Emissions

Scope 1 GHG emissions associated with LVMWD and the JPA include emissions from vehicle fleet, combustion of natural gas in their facilities, and from the treatment of wastewater. Natural gas usage is the largest contributor to Scope 1 in 2000, 2012, and 2021.

Scope 1 emissions remained relatively steady between 2000 and 2012. However, Scope 1 emissions decreased between 2012 and 2021 due to decreased natural gas usage, as noted above. Vehicle fleet and equipment emissions and wastewater emissions remained relatively similar between 2000, 2012, and 2021, as operations did not change significantly over these time periods.

Scope 2 – Indirect Emissions

Scope 2 GHG emissions are 100 percent attributable to electricity purchased from Southern California Edison (SCE) and used by LVMWD and the JPA for their buildings and facilities. LVMWD and the JPA use electricity primarily for water pumping and wastewater treatment. In 2021, the Tapia Water Reclamation Facility's electricity consumption accounted for 44 percent of all electricity used at LVMWD and JPA facilities, although this was offset by renewable energy generated by the on-site solar power facility and other improvements such as replacement of Tapia Water Reclamation Facility's aging and inefficient air blowers and diffusion system. Scope 2 emissions have decreased between 2000 and 2021 due to the increased requirements for carbon free electricity procurement on SCE from California's RPS and energy efficiency improvements made by LVMWD and the JPA.

Scope 3 – Indirect Emissions

Scope 3 GHG emissions include employee commuting, electricity transmission and distribution, natural gas leakage, and waste disposal. Electricity transmissions and distribution and natural gas leakage decreased from 2000 to 2021, as reducing electricity and natural gas consumption lead to proportionate decreases in leakage of natural gas and electricity transmission and distribution losses. Employee commute emissions and waste emissions remained relatively similar between 2000, 2012, and 2021, as operations and staffing did not change significantly over these time periods. However, a per capita decrease in employee commute emissions was experienced in 2021, as less staff worked in person due to the COVID-19 pandemic.

HISTORICAL GHG EMISSIONS

The GHG emissions inventory helps LVMWD, the JPA, and other interested parties understand the relative magnitude of GHG emissions arising from each GHG-generating activity associated with current operations. This inventory also aided in the development of GHG emissions targets consistent with State goals. As described in Chapter 1 the State goals included in SB 32 and AB 1279, are based on reductions from the 1990 level of emissions. Because LVMWD and the JPA do not have a GHG emissions inventory for 1990, 1990 emission levels associated with their operations were estimated by back casting from the 2012 inventory. The methods used to develop a back-cast to their 1990 emissions level is described in the following section. LVMWD and JPA adopted emissions targets are based on 1990 levels and are discussed in more detail in Chapter 5.

Back-Cast to 1990

To aid in determining LVMWD's 2030 GHG emissions target, a back-cast of GHG emissions to 1990 was developed based on the 2012 inventory results. The 2012 GHG emission inventory was selected for the back-cast because the 2012 operations are like present day operations, and this is prior to the current GHG emissions reduction projects that came online. The 2012 GHG inventory also has the latest and most complete dataset. The 1990 back-cast assumes that LVMWD's emissions have followed approximately the same trajectory as the state's emissions such that for a given year, emissions for LVMWD and the state have increased or decreased approximately the same percentage relative to 1990. For example, the State experienced a four percent decrease in GHG emissions between 1990 and 2012; therefore, LVMWD's 1990 emissions were assumed to be about four percent higher than the 2012 emissions levels quantified in the 2012 GHG emissions inventory. Table 4-4 shows this calculation in more detail.

Table 4-4. LVMWD's 1990 GHG Emissions Back-Cast

Emissions	Total
State of CA 1990 Emissions (MMT CO_2e)	303
State of CA 2012 Emissions (MMT CO_2e)	291
1990 Change Factor (%)	(4.03%)
2012 Emissions (MT CO_2e)	14,721
1990 LVMWD Emissions (MT CO_2e)	15,314

Notes: State-level GHG emissions values used for the 1990 back-cast were sourced from CARB,[43] and exclude emissions from the industrial, agricultural, and high-GWP emissions sectors, for better comparison to LVMWD's 2012 emissions inventory, which also excludes these sectors. Parathesis indicate a negative number.

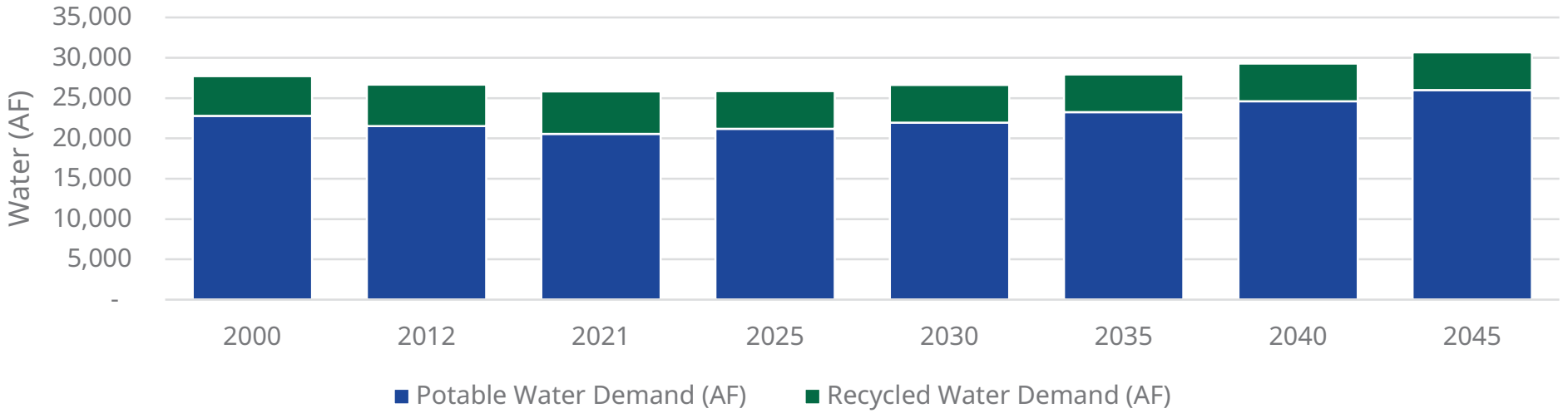


43. California Air Resources Board (2022). California Greenhouse Gas Emission Inventory - 2022 ***https://ww3.arb.ca.gov/cc/inventory/data/data.htm****. Accessed July 2023*

LVMWD AND JPA GHG EMISSIONS FORECAST

Using the 2021 inventory, future operational GHG emissions were forecasted for LVMWD and the JPA. The forecast provides an estimate for how GHG emissions will look in the future, based primarily on projected services over time. These projections were derived from LVMWD's UWMP. Electricity usage by LVMWD and the JPA is expected to increase in future years consistent with increased recycled water operations via the Pure Water Project, which is expected to come online in 2030. Projections used to forecast GHG emissions are based on the UWMP's 5-consecutive-year drought scenario which provides a conservative estimate of future water deliveries as a reflection of the driest 5-year historical sequence. This scenario is considered conservative as it included the largest water demand through 2045, compared to the other scenarios in the UWMP. Pure Water operations emissions are forecasted based on the CEQA documentation outlining expected future GHG emissions associated with amortized construction emissions, emergency engines, electricity use, fleet vehicles, and employee commute.[44] This forecast allows LVMWD and the JPA to estimate how GHG emissions will change based on expected water demand, and how much LVMWD and the JPA will need to reduce emissions in order to meet GHG reduction targets for 2030 and 2045. Historical and projected water demand[45] is shown in Figure 4-4. Potable water demand is expected to increase by up to 27 percent between 2021 and 2045, in accordance with the 2020 UWMP projected population growth in the combined service area. The actual increase in potable water demand may be less due to more recent efforts to reduce water demands in the wake of the 2020-2022 drought along with implementing new conservation regulations. With conservation efforts, recycled water demand is expected to decrease by approximately 12 percent between 2021 and 2045, as recycled water used for landscape irrigation and golf course irrigation is projected to decrease through 2045. Recycled water consumption may be reduced by as much as 20 percent if conservation efforts are prioritized. Limited opportunities for developing substantial new recycled water demands and LVMWD encouraging conservation are expected to influence future decreases in recycled water demand.[46]

Figure 4-4. Historical and Projected Water Demand



44. LVMWD. Appendix A Emissions Calculations. ***https://www.lvmwd.com/home/showdocument?id=14540***

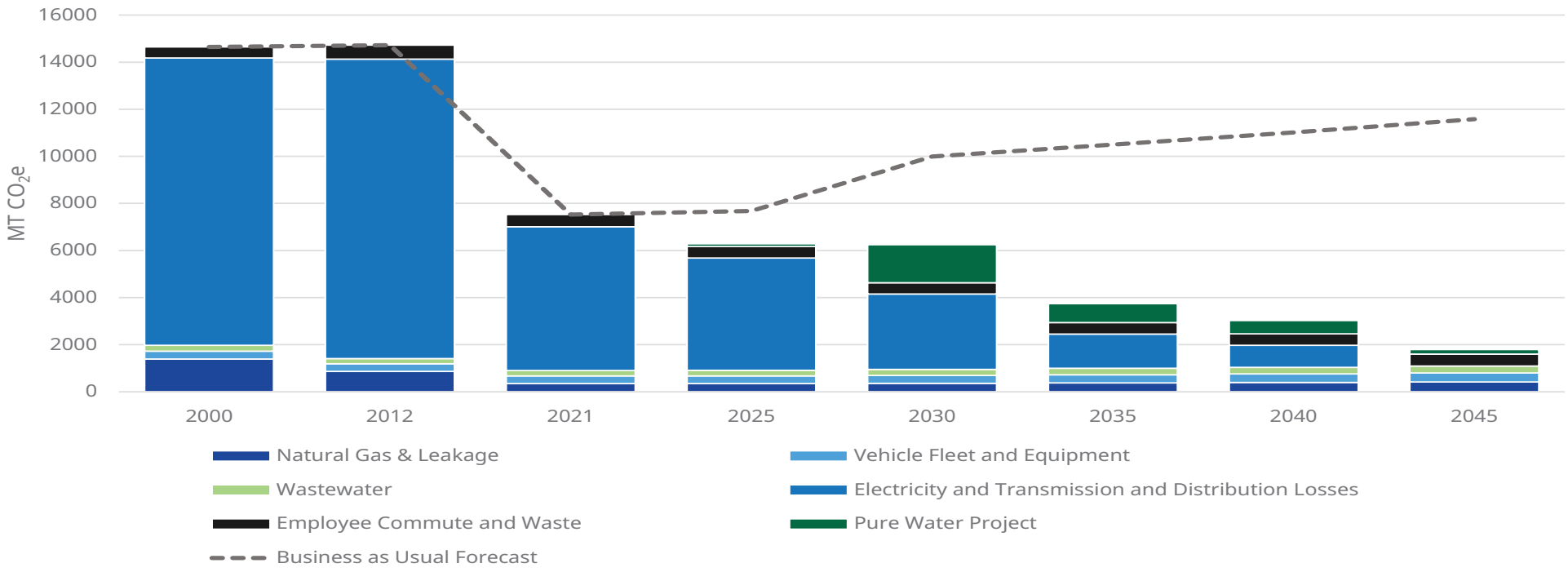
45. Projected water deliveries were used as a proxy for all LVMWD's future services, with the assumption that LVMWD operations scale approximately with water delivery to customers. Accessed July 2023

46. LVMWD. 2020 Urban Water Management Plan. ***https://www.lvmwd.com/home/showpublisheddocument/13459/637616788962730000****. Accessed July 2023*

To clearly demonstrate how LVMWD and JPA emissions will look in the future, two forecasts were developed – a business-as-usual (BAU) forecast, and an adjusted forecast. The BAU forecast shows what LVMWD's emissions would look like based on water delivery projections alone. The adjusted forecast adjusts the BAU forecast to account for State-level implementation of policies and programs that will help California reduce its emissions through 2045. The adjusted forecast includes the California RPS,[47] which will significantly reduce LVMWD and JPA GHG emissions from electricity through 2045 due to the requirements on utility providers to be entirely renewable and carbon-free by 2045. Based on review of other State legislation intended to reduce GHG emissions, such as Title 24 and the Advanced Clean Cars program, they were found to have limited impact on LVMWD and JPA operations and therefore were not included in the adjusted forecast.

Incorporating State-level policies and programs in the adjusted forecast creates a more realistic picture of what LVMWD and JPA emissions will look like in the future. The BAU forecast is useful for comparison with the adjusted forecast, to show the extent to which State-level policies and programs will help to reduce GHG emissions at LVMWD (Figure 4-5). Under the BAU forecast, overall emissions are projected to increase steadily through 2045, as service population and water services continue to grow, and as the Pure Water Project comes online in 2030. However, in the adjusted forecast, electricity emissions will significantly decrease through 2045, decreasing total emissions over time. The numerical results of the forecast are included in Table 4-5.

Figure 4-5. LVMWD and JPA GHG Emissions Forecast



47. Adopted in September 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the State's RPS Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Table 4-5. LVMWD and JPA GHG Emissions Forecast

Emissions Source	2025	2030	2035	2040	2045
Forecast Summary (MT CO_2e)					
BAU Forecast	7,681	9,996	10,499	11,018	11,579
Adjusted Forecast	6,287	6,249	3,740	3,028	2,260
Legislative Reductions	1,395	3,747	6,758	7,989	9,319
Adjusted Forecast Detail (MT CO_2e)					
Vehicle Fleet & Equipment	323	332	348	365	383
Natural Gas	273	281	295	309	324
Natural Gas Leakage	76	79	82	86	91
Wastewater	242	256	271	281	298
Electricity	4,564	3,069	1,400	898	0
T&D Losses	201	135	62	40	0
Employee Commute	347	330	324	324	336
Waste	143	147	154	162	170
Pure Water	117	1,619	805	563	197



5.

CLIMATE ACTION TARGETS



INTERNATIONAL CONTEXT

Climate change is a global phenomenon and a major driver for GHG reduction activities which have continued to evolve on the international level. The United Nations Framework Convention on Climate Change (UNFCC) is an international environmental treaty, signed by 154 states at the United Nations Earth Summit in June 1992. The Framework established responsibilities for participating countries to reduce their anthropogenic emissions and return to 1990 emissions levels. The treaty was superseded in 2016 by the Paris Agreement, which established a goal to keep the rise in global average temperatures below 2 °C with efforts to limit increases to 1.5 °C by reducing global GHG emissions to carbon neutrality by mid-century.[48] The Paris Agreement has been ratified by 191 members of the UNFCC.[49]

To assist in achieving these ambitious goals, the United Nations developed Sustainable Development Goals (SDG) intended to be achieved by the year 2030. The SDGs are a collection of 17 interlinked global goals designed to guide sustainable development. These international frameworks have become the drivers for many of California's own climate related legislation.

48. IPCC. Special Report. ***https://www.ipcc.ch/sr15/****. Accessed July 2023*

49. UN Climate Change. Paris Agreement. ***https://unfccc.int/process/the-paris-agreement/status-of-ratification****. Accessed July 2023*

TRIUNFO WATER & SANITATION DISTRICT

LAS VIRGENES MUNICIPAL WATER DISTRICT

CLIMATE ACTION AT THE STATE LEVEL

California has become a global leader in climate change action, having established extensive legislation, policies, and programs to reduce GHG emissions within the state over the last decade. The primary drivers of climate action at the state level are Assembly Bill (AB) 32, Senate Bill (SB) 32, and AB 1279. These regulations chart a path towards a carbon neutral California by 2045, as explained below.

Assembly Bill 32 – Codified the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires the California Air Resources Board (CARB) to prepare a Scoping Plan that outlines the main strategies the State will employ to meet the 2020 target. The AB 32 Scoping Plan was adopted in 2014.

Senate Bill 32 – The successor to AB 32 and requires the State of California to achieve a statewide reduction in GHG emissions of 40 percent below 1990 levels by 2030. The SB 32 Scoping Plan was adopted in 2017.

Assembly Bill – AB 1279, adopted in 2022, codifies the statewide carbon neutrality goal into a legally binding requirement for California to achieve carbon neutrality no later than 2045 and ensure 85 percent GHG emissions reduction under that goal. AB 1279 builds upon Executive Order B-55-18 which originally established California's 2045 goal of carbon neutrality.

Programs and policies that support the goals established in the above bills and which will impact GHG emissions for LVMWD and the JPA include the California Renewable Portfolio Standard (RPS), which, through SB 1020 and SB 100, requires electricity providers to procure 100 percent of electricity from renewable and carbon-free sources by 2045.[50] The Advanced Clean Fleets rule will also support the goals by requiring LVMWD to transition to a 100 percent zero-emission capable utility fleet by 2045. LVMWD and the JPA may choose to purchase only ZEVs beginning in 2024 and remove internal combustion engine vehicles at the end of their useful life or elect to meet the State's ZEV milestone targets as a percentage of the total fleet starting with vehicle types that are most suitable for electrification.[51]



50. As part of California's RPS program SB 100 signed in 2018 mandated that electricity providers increase GHG-free sources to 100 percent of total procurement by 2045. Furthering RPS requirements, SB 1020 established additional requirements that procurement from eligible renewable energy resources increase to 90 percent of total procurement by 2035 and 95 percent of total procurement by 2040.

*51. CARB. Advanced Clean Fleets. **https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets**. Accessed July 2023*

LVMWD AND JPA CLIMATE ACTION TARGETS

While LVMWD and the JPA are not beholden to AB 32, SB 32, or AB 1279, and currently faces no legislative requirements to reduce their GHG emissions, the State recognizes water agencies as one of the largest contributors to energy emissions in California, primarily due to the large quantities of electricity used to pump water. It is also anticipated that as California works towards the 2045 carbon neutrality goal, additional legislation and regulations will be established in the future that may require LVMWD and the JPA to adopt low-carbon practices and operations. As part of the process of developing a CAAP, LVMWD and the JPA have elected to establish climate action targets that align with the State's goals to serve as targets for their facilities and operations going forward and provide a framework for achieving voluntary GHG emissions reductions in future years. LVMWD and the JPA have already taken numerous steps to reduce emissions, conserving resources, and reduce energy use; the CAAP builds on those existing efforts.

The CAAP establishes a 2030 GHG emissions target in alignment with the annual reduction rate needed to eventually meet the State's 2045 carbon neutrality goal, as set forth by AB 1279. By setting a straight line from 2021 emissions levels to the AB 1279 target, the 2030 target will surpass the SB 32 goal of a 40 percent reduction in GHG emissions from 1990 level by 2030 and will put LVMWD on a pathway to achieving carbon neutrality by 2045.52 LVMWD and JPA climate action targets are shown in Table 5-1, along with the 1990 back-cast emissions level from the 2012 inventory,[53] adjusted forecast emissions, percent reduction from 1990 levels and the emissions gap (the difference between the AB 1279 absolute target pathway and adjusted forecast emissions). The target emissions trajectory in absolute emissions is shown in Figure 5-1. Figure 5-1 also shows the BAU forecast, adjusted forecast, and the 1990 baseline inventory back-cast.

Table 5-1. LVMWD and JPA Climate Action Targets

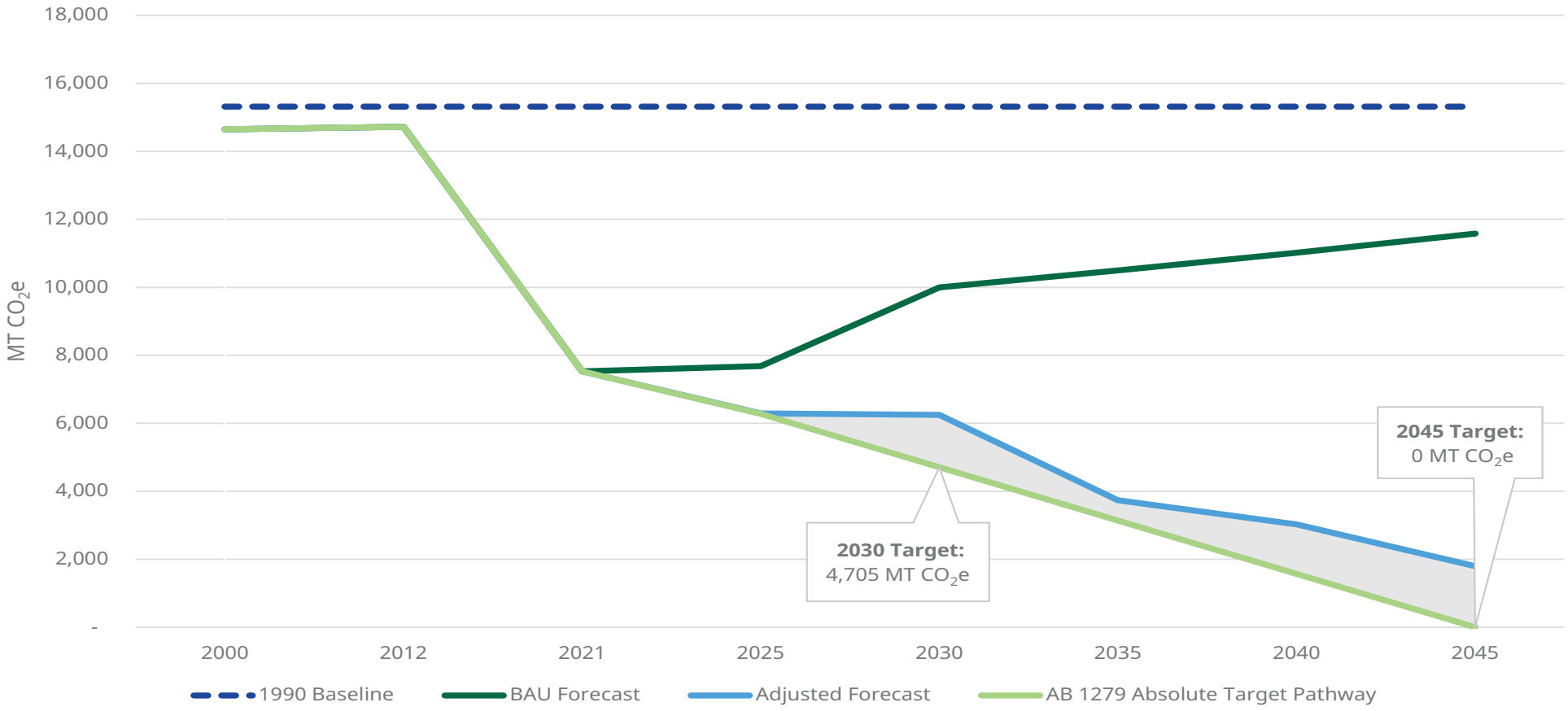
	2025	2030	2035	2040	2045
1990 Baseline	15,314	15,314	15,314	15,314	15,314
Adjusted Forecast	6,287	6,249	3,740	3,028	2,260
Target Pathway developed from 1990 Levels					
AB 1279 Absolute Target Pathway	6,273	4,705	3,136	1,568	0
Percent Reduction from 1990 Levels	59%	69%	80%	90%	100%
Emissions Gap	14	1,544	604	1,460	2,260



52. Carbon neutrality refers to achieving net-zero CO_2e emissions, such that any GHG emissions created are offset by GHG emissions sequestering activities.

53. A back-cast of GHG emissions to 1990 was developed based on the 2012 inventory results, as the 2012 GHG emission levels are before current GHG emissions reduction projects came online and 2012 operations were closer to the current operations than 2000 operations.

Figure 5-1. LVMWD and JPA Forecast and Climate Action Targets



GHG Emissions Gap

As shown in Figure 5-1, a gap remains between the projected emissions (blue line) and the target emissions (green line), even after accounting for reductions that will result from state legislation. This gap is equal to 1,544 MT CO_2e in 2030 and 2,260 MT CO_2e in 2045. This gap is how much LVMWD and the JPA will need to reduce their GHG emissions to meet the target of carbon neutrality by 2045.

LVWMD and the JPA aim to close this gap by implementing the GHG measures presented in Chapter 6. Several of these measures, along with the climate adaptation specific measures, will also increase their resilience to climate change in the coming years.

6.

GHG EMISSIONS REDUCTION AND ADAPTATION MEASURES



LVMWD and the JPA have developed GHG emissions mitigation and adaptation measures that support the reduction of GHG emissions to levels that align with the State's GHG emissions reduction goals and reduce climate risks to their operations, infrastructure, and natural resources. Collectively, these measures will reduce the gap between LVMWD and JPA forecasted GHG emissions and their reduction targets. While the measures do not fully achieve the 2045 GHG emissions reduction target identified in Chapter 5, they provide for substantial progress towards LVMWD's and the JPA's carbon neutrality target, with the expectation that additional legislation, technology, and measures shall be identified in the future to achieve further reductions. As discussed in Chapter 1, a primary benefit of adopting proactive plans with quantifiable progress towards CAAP goals is the identification of clear measures that with funding shall reduce GHG emissions and reduce climate risks. This Plan aligns with many of the goals and requirements of State and federal grant funding.

Table 6-1 summarizes each GHG reduction and adaptation measure and details the potential GHG emission reductions that can be achieved through full implementation of quantifiable measures. As shown in Table 6-1, implementation of these measures can significantly reduce GHG emissions and improve the operational resilience of LVMWD and JPA facilities. Through implementation of GHG quantifiable measures and actions, LVMWD and the JPA can achieve the 2030 GHG emissions reduction target, as seen in Table 6-1.

Unless otherwise mandated by the State or federal government, cost analysis and feasibility studies will be conducted, and individual reduction and adaptation measures will be implemented only if authorized by the Board of Directors for LVMWD and the JPA. Services provided by LVMWD and the JPA will need to remain affordable to customers. The Board of Directors for LVMWD and the JPA will have discretion in deeming the feasibility of implementing individual measures.

Table 6-1. GHG Reduction and Adaptation Measures by Sector

Measure Code	Mitigation/ Resilience	GHG Reduction Measure	2030 GHG Reduction Potential (MT CO_2e)	2045 GHG Reduction Potential (MT CO_2e)
Infrastructure				
I-1	Mitigation	Utilize carbon-free electricity for 100% of electricity needs by 2030.	453	0
I-2	Mitigation	Electrify new and existing stationary equipment to reduce natural gas consumption 75% by 2030 and 100% by 2045.	219	415
I-3	Mitigation	Utilize renewable diesel and alternative fuels to bridge the technology gap and decarbonize stationary equipment to reduce diesel consumption by stationary equipment 100% by 2030.	36	41
I-4	Mitigation, Resilience	Increase energy storage at facilities and buildings.	GHG Emissions Not Quantified	GHG Emissions Not Quantified
I-5	Mitigation	Improve energy efficiency at facilities and buildings.	GHG Emissions Not Quantified	GHG Emissions Not Quantified
I-6	Mitigation	Reduce process and fugitive GHG emissions associated with wastewater treatment.	5	6
I-7	Resilience	Maximize backup power facilities for all critical assets, in alignment with Measure I-4.	GHG Emissions Not Quantified	GHG Emissions Not Quantified
I-8	Resilience	Support the regional development of dry and wet weather stormwater diversions as a supplementary source for recycled potable water.	GHG Emissions Not Quantified	GHG Emissions Not Quantified
I-9	Resilience	Improve the Supervisory Control and Data Acquisition system.	GHG Emissions Not Quantified	GHG Emissions Not Quantified
I-10	Mitigation, Resilience	Require the incorporation and identification of mitigation and adaptation features into new capital projects.	GHG Emissions Not Quantified	GHG Emissions Not Quantified
I-11	Mitigation, Resilience	Implement the Pure Water Project Las Virgenes Triunfo.	GHG Emissions Not Quantified	GHG Emissions Not Quantified

Measure Code	Mitigation/ Resilience	GHG Reduction Measure	2030 GHG Reduction Potential (MT CO_2e)	2045 GHG Reduction Potential (MT CO_2e)
Operations				
O-1	Mitigation	Electrify or otherwise decarbonize the vehicle fleet such that 75% of the vehicle fleet are ZEV by 2030 and 100% of the vehicle fleet are ZEV by 2045.	102	342
O-2	Mitigation	Increase employee commute ZEV adoption to 25% by 2030 and 50% by 2045.	48	136
O-3	Mitigation	Reduce employee commute VMT by 15% by 2030 and 30% by 2045.	GHG Emissions Not Quantified	GHG Emissions Not Quantified
O-4	Mitigation	Develop a net zero waste program such that waste sent to the landfill is reduced by 90% by 2030 and maintain through 2045.	133	153
O-5	Mitigation, Resilience	Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.	855	0
O-6	Resilience	Develop resource programs and protocols to protect staff from climate extremes.	GHG Emissions Not Quantified	GHG Emissions Not Quantified
O-7	Resilience	Maximize operational flexibility and redundancies, including water transfer agreements, interties, flexible exchanges, additional system interconnections, and points of delivery.	GHG Emissions Not Quantified	GHG Emissions Not Quantified

Measure Code	Mitigation/ Resilience	GHG Reduction Measure	2030 GHG Reduction Potential (MT CO_2e)	2045 GHG Reduction Potential (MT CO_2e)
Natural Resources				
NR-1	2,3	Investigate and implement carbon capture and sequestration opportunities to offset all Water Reclamation Facility fugitive emissions by 2045.	6	48
NR-2	2	Catalog and improve the stability of hillside monitoring and stabilization efforts after heavy rain events in areas at risk of landslides and debris flows to minimize impacts to District infrastructure and equipment.	GHG Not Emissions Quantified	GHG Emissions Not Quantified
NR-3	2	Protect the Las Virgenes Reservoir from sedimentation associated with extreme climate events.	GHG Emissions Not Quantified	GHG Emissions Not Quantified
NR-4	2,4,5	Develop and implement a wildfire abatement and response policy.	GHG Emissions Not Quantified	GHG Emissions Not Quantified
GHG Emissions Reduction Summary				
Total GHG reduction potential with full implementation of all measures			**1,857**	**1,140**
Total GHG reductions needed to meet LVMWD's Reduction Goals3			**1,544**	**1,797**
GHG reductions remaining			**-313**	**657**

GHG = greenhouse gas; LVMWD = Las Virgenes Municipal Water District; MT CO_2e = metric tons of carbon dioxide equivalent; VMT = vehicle miles traveled; ZEV/EV = zero emission vehicle/electric vehicle
I = Infrastructure; O = Operations; NR = Natural Resources
1 As described in Chapter 5, LVMWD established GHG reduction goals in alignment with AB 1279 Absolute Target pathway.

MEASURE ORGANIZATION

CAAP measures include specific goals that LVMWD and the JPA will work towards to reduce GHG emissions and improve resilience to climate change. As vital service providers to their customers, LVMWD and the JPA expect to balance the implementation of climate action and adaptation measures with the cost of water and wastewater services to ratepayers. Increased rates could have equity and other impacts if not thoughtfully considered, thus, each measure can only be implemented once it is deemed financially feasible or when funding/financing has been identified. However, LVMWD and the JPA also understand that failing to prepare for climate change could substantially increase costs in the future, so care must be taken to strike the right balance. Therefore, consistent with LVMWD's and the JPA's overall mission, measures that could result in a significant increase in costs were removed from consideration. Measures are organized by asset, and consist of a suite of actions that support each measure:

1. **ASSET:** Measures are categorized into three asset categories:
    a. **Infrastructure**
    Infrastructure includes various components of its water and wastewater system that pump, transport, divert, store, treat and deliver water.
    b. **Operations**
    Operations include the staff, equipment, and systems that keep day-to-day operations and services running.
    c. **Natural Resources**
    Natural resources include materials and natural substances such as water, soil, vegetation, and wildlife.
2. **MEASURES:** Measures define quantitative and qualitative goals within each asset category that will contribute to reducing GHG emissions and/or increase resilience.
3. **ACTIONS:** Actions consist of the specific activities that will be completed in support of each measure, which together accomplish each measure's goal.

Some CAAP measures and their actions include quantifiable GHG emissions (i.e., with clearly defined GHG emissions reduction potential). Other actions are not quantifiable, and either contribute to the realization of GHG remissions reduction potential of other measures or actions or increase the resilience of LVMWD and the JPA to climate change. An example of a quantifiable action is purchasing a specific amount of carbon-free electricity, while a supportive (not quantifiable) action is conducting an annual return on investment analysis of carbon-free electricity packages. Measures and actions that seek to increase resilience to climate change are not considered quantifiable in this CAAP, as the quantified metric being considered is GHG emissions. Together, the CAAP measures and their actions establish a foundational pathway to make substantial progress towards achieving 2030 and 2045 GHG reduction goals and increasing resilience to climate change. Measures and actions will be tracked and re-evaluated on a regular basis to help ensure achievement of the projected reductions.

OBJECTIVES

The CAAP measures and actions were developed in alignment with LVMWD's strategic objectives, as outlined in the 2022 LVMWD Strategic Plan. LVMWD's strategic objectives are:

1. Develop a strategy to maintain a highly effective workforce,
2. Improve LVMWD's water supply reliability,
3. Support customers to meet water-use efficiency standards,
4. Eliminate the discharge of pollutants to Malibu Creek and preserve the natural beauty of the Watershed,
5. Achieve a high credit rating for LVMWD's three enterprises,
6. Reduce LVMWD's carbon footprint,
7. Keep customers, city officials and other stakeholders well-informed and provide new/improved customer tools to enhance service delivery,
8. Develop a process to act on efficiency improvement suggestions, and
9. Enhance LVMWD's asset management programs.

The strategic objectives were assessed and used to guide the development of a set of five CAAP objectives that connect the CAAPs goals of reducing GHG emissions and increase resilience to climate change and the overall strategic goals of LVMWD. The CAAP's objectives are outlined and described below.

OBJECTIVE 1: Enhanced Water Supply Diversification

Investments in a diverse water supply portfolio will allow LVMWD and the JPA to manage the associated projected climate risks and uncertainties. Efforts to increase dry (sanitary sewer) and wet weather (stormwater) diversions, minimize reliance on imported water, and develop reliable local water sources will strengthen and increase the resilience of the water supply portfolio.

OBJECTIVE 2: Better Protected Water Resources

Implementing natural resources, land, and ecosystem management efforts will protect water resources from climate risks. CAAP measures that align with this objective reduce the pressure on local natural resources by allowing more space for trees and native habitats, preserving natural water supplies and increasing resilience of water resources.

OBJECTIVE 3: Increased Operational Efficiency and Resource Management

Implementing programs that manage resource demand will allow LVMWD and the JPA to continue to provide high-quality water sustainably. Increasing operational efficiencies often contributes to reductions in resource consumption and cost savings.

To maintain a long-range, transparent, stable, and well-planned financial condition, resulting in current and future water users receiving fair and equitable rates, it will be important to implement projects and programs that reduce financial risk through resource management and increased operational efficiencies.

OBJECTIVE 4: Improved Operational Flexibility and Reliability

Retaining a reliable water supply and operations is at the heart of LVMWD's mission. Developing climate solutions and planning for issues such as energy shortages, power safety shutoffs, and drought allows LVMWD to make its operations more resilient and continue to provide water reliably and affordably to the community.

OBJECTIVE 5: Better Connected People and Water

Prioritizing projects that engage LVMWD's and the JPA's customers, community, and partners will facilitate increased community support and involvement in climate action and adaptation efforts. LVMWD and the JPA will continue to support programming that enhances existing relationships and better connects the community with efforts to conserve water and mitigate climate change impacts on LVMWD's and the JPA's service area, employees, and customers.

INFRASTRUCTURE MEASURES

MEASURE I-1: Utilize carbon-free electricity for 100% of electricity needs by 2030.

Electricity consumption is the single largest emission source for LVMWD and the JPA. While SB 100 drives the conversion of retail electricity to 100% renewable by 2045, procuring carbon-free electricity now expedites this timeline and will provide significant reductions in GHG emissions. By opting into a renewable electricity tier through the electricity provider, LVMWD and the JPA have the opportunity to achieve most of its GHG emissions reduction's goal. Furthermore, switching to low-carbon or carbon-free electricity will make other measures more impactful by further reducing GHG emissions. For example, electrification of buildings, equipment and vehicles will achieve a greater GHG emission reduction if the electricity sourced is low-carbon or carbon neutral. LVWMD and the JPA currently receive electricity from Southern California Edison (SCE). SCE offers a 50 percent green rate option and 100 percent green rate option to its customers. LVMWD and the JPA can also procure electricity from Clean Power Alliance (CPA), a community choice aggregation (CCA) entity providing customers in Los Angeles and Ventura counties carbon-free electricity. CPA provides options of 40 percent, 50 percent, and 100 percent carbon-free electricity. In addition to changing its electricity procurement strategy, developing additional on-site solar and pairing with battery storage (Measures I-4 and I-7), will both reduce GHG emissions and increase resilience to disturbances such as power outages.

Actions

- **Action I-1.1:** Install 1 MW of solar PV at Rancho Sprayfield by 2025.
- **Action I-1.2:** Conduct a feasibility study to understand the potential for installing up to 15 megawatt (MW) of floating solar photovoltaics at Las Virgenes Reservoir, including potential costs, payback periods, and resilience impacts.
- **Action I-1.3:** Conduct an assessment to identify the solar capacity needed to support the additional electricity demand for vehicle fleet and employee commuter fleet EV adoption.
- **Action I-1.4:** Identify partners to assess and pursue floating solar photovoltaics, such as firms that specialize in power purchase agreements (PPA) and SCE. Work with partners to pursue funding opportunities and tax credits for the installation of floating solar photovoltaics such as opportunities through the Department of Energy (DOE) Solar Energy Technologies Office (SETO and the federal Investment Tax Credit and Production Tax Credit.
- **Action I-1.5:** Based on the results of the studies and if deemed feasible, install up to 15 MW of floating solar photovoltaics at Las Virgenes Reservoir and additional on-site solar generation.
- **Action I-1.6:** Incorporate design elements into the Pure Water Project Las Virgenes – Triunfo to minimize GHG emissions to the greatest extent feasible. This should include energy efficient processes, identification of alternative fuels or technologies for processes that cannot be electrified, developing the project to be electricity ready where feasible, opportunities to directly link to on-site renewables and battery storage, and identification of the energy source to offset indirect electricity emissions, such as using the Renewable Energy Self-Generation Bill Credit Transfer (RES-BCT) tariff for renewable energy generation from other District sites where on-site renewables will not offset the emissions.
- **Action I-1.7:** Identify if the JPA/LVMWD can source electricity from Clean Power Alliance (CPA) and conduct an annual return on investment (ROI) analysis of carbon-free electricity packages available from SCE and CPA to determine which would be more cost-effective. Analysis should include a cost evaluation of switching all electricity accounts to 100 percent carbon-free electricity to ensure electricity consumption not covered by on-site solar will be 100 percent carbon-free.
- **Action I-1.8:** Depending on the results of the ROI analysis and if deemed feasible, switch some or all electricity accounts to 100 percent carbon-free electricity from with SCE "Green Rate" or to a CPA "100% Green Power".
- **Action I-1.9:** Conduct a study to identify what amount of pumping that can be scheduled utilizing a high level of renewable energy and offset the remaining amount with battery stored solar energy.

Target Metrics

- 100 percent carbon-free electricity by 2030
- Install additional on-site solar fields

GHG Emissions Reductions

- 453 MT CO_2e in 2030

Objectives

- Increased Operational Efficiency & Resource Management
- Improved Operational Flexibility & Reliability

MEASURE I-2: Electrify new and existing stationary equipment to reduce natural gas consumption 75% by 2030 and 100% by 2045.

Infrastructure electrification is promoted by several State-level programs, including SB 350[54] and AB 3232,[55] which require reductions in energy usage in buildings and a transition to a low-carbon building stock. SB 350 requires that the State double the energy efficiency savings in natural gas usage by 2030. AB 3232 requires the California Energy Commission (CEC) evaluate strategies to reduce the State's building stock GHG emissions by 40 percent below 1990 levels by 2030. The CEC's Building Energy Efficiency Standards (Title 24 Parts 6 and 11) includes building standards and codes that support decarbonization efforts through requiring improvements in energy efficiency of building equipment to occur at time of new construction and upgrades.

By phasing out natural gas equipment for electric equipment, while using carbon-free electricity, LVMWD's and the JPA's GHG emissions associated with this equipment will fall to zero. Replacing natural gas equipment should be completed over time as existing natural gas infrastructure needs to be replaced. When replacing items like hot water heaters and Heating, Ventilation, and Air Conditioning (HVACs) units, LVMWD and the JPA will look to replace natural gas combustion units with heat pumps that can operate at nearly 400 percent increased efficiency.[56] Replacing fossil fuel combustion equipment with electric alternatives will align with the State policies and Title 24 requirements. Phasing out natural gas backup generators is a lower priority in the near term, as they provide critical resilience benefits.

Actions

- **Action I-2.1:** Conduct a survey of existing natural gas operated equipment and identify operationally and financially viable electric alternatives. By 2025, establish a schedule to replace existing natural gas-consuming equipment with electric or carbon neutral alternatives (i.e., e-fuels).
- **Action I-2.2:** Develop and implement a policy requiring new equipment to be electric or carbon neutral. Require an infeasibility waiver to be submitted and approved when new equipment cannot be electrified. The infeasibility waiver process shall identify other opportunities to decarbonize the new stationary equipment (e.g., use of renewable diesel/e-fuel).
- **Action I-2.3:** Explore rebate, grant, or partnership opportunities to fund the replacement of natural gas-consuming equipment like HVAC and hot water heaters with electric-powered equivalents like heat pumps.
- **Action I-2.4:** Educate staff of the electrification requirement and implement the schedule to replace non-emergency use natural gas-consuming equipment with electric-powered equivalents to reduce natural gas consumption.

Target Metrics

- 75 percent reduction in natural gas by 2030
- 100 percent reduction in natural gas by 2045

GHG Emissions Reductions

- 219 MT CO_2e in 2030
- 415 MT CO_2e in 2045

Objectives

- Increased Operational Efficiency & Resource Management
- Improved Operational Flexibility & Reliability

54. CEC. Clean Energy and Pollution Reduction Act – SB 350. **https://www.energy.ca.gov/rules-and-regulations/energy-suppliers-reporting/clean-energy-and-pollution-reduction-act-sb-350**. Accessed July 2023

55. CEC. Assembly Bill 3232 and the California Building Decarbonization Assessment. **https://www.energy.ca.gov/sites/default/files/2021-08/AB3232_Building_Decarbonization_Assessment_Factsheet_ADA.pdf**

56. Tri-State. 2021. Advantages of Energy Efficient Heat Pumps. **https://tristate.coop/advantages-heat-pumps-energy-efficiency#:~:text=What's%20the%20efficiency%20performance%20of,coefficient%20of%20performance%2C%20or%20COP**. Accessed July 2023.

MEASURE I-3: Utilize renewable diesel and alternative fuels to bridge the technology gap and decarbonize stationary equipment to reduce diesel consumption by stationary equipment 100% by 2030.

LVMWD and the JPA currently use a combination of gasoline and diesel to fuel its fleet vehicles and stationary equipment, including backup emergency power generators. While zero-emission heavy-duty vehicles are not currently market-ready, using low-carbon intensity fuels like renewable diesel in existing vehicles and equipment does not require substantive equipment alterations and helps reduce GHG emissions over the short term. The use of alternative fuels allows for additional time to fully vet and/or pilot the new zero-emission technology before infrastructure investments are made, which could help improve the return on investment. The State's Low Carbon Fuel Standard (LCFS) regulation is driving the market to increase the availability and decrease the cost of alternative fuels that may offer a return-on-investment benefit to switch to alternative fuels now in equipment and fleet vehicles that do not need technology changes. Using renewable diesel in existing vehicles can decrease the costs of maintaining equipment over traditional diesel due to a decreased need for diesel particulate filter services, as renewable diesel has less impurities such as sulfur, oxygen, and other aromatic compounds.[57]

Actions

- **Action I-3.1:** Conduct a feasibility study to assess opportunities to decarbonize LVMWD's and the JPA's existing back-up generators using drop-in renewable diesel. As part of the assessment, determine a timeline for the renewable diesel transition, the quantity of renewable diesel needed, and any additional costs incurred from the transition. Include potential impacts of new renewable diesel equipment.
- **Action I-3.2:** Identify partners for a reliable source of renewable diesel and fuel (e.g., Diamond Green Diesel).
- **Action I-3.3:** Based on the feasibility study, develop a policy to transition all generators to renewable fuels.
- **Action I-3.4:** Develop and distribute educational materials to relevant staff members on the renewable diesel policy requirement and associated air quality and health benefits of the transition outlines in Action I-3.3.
- **Action I-3.5:** Pursue and monetize LCFS credits associated with renewable fuel conversions in vehicles.

Target Metrics

- 100 percent replacement of diesel with renewable diesel by 2030

GHG Emissions Reductions

- 36 MT CO_2e in 2030
- 41 MT CO_2e in 2045[58]

Objectives

- Increased Operational Efficiency & Resource Management
- Improved Operational Flexibility & Reliability

*57. Neste. Fueling Renewed Trust in Public Fleets. **https://www.neste.us/neste-my-renewable-diesel/industries/public-fleets**. Accessed July 2023.*

58. GHG emissions reductions are projected to increase by 2045 as forecasted fleet and equipment GHG emissions are projected to increase.

MEASURE I-4: Increase energy storage at LVWMD and JPA facilities and buildings.

Energy storage systems are a proven strategy to maximize use of renewable energy by storing the energy produced during peak renewable generation periods. By storing renewable energy, LVMWD and the JPA will increase their energy residence and reduce GHG emissions by charging the battery system during times of low grid emissions and discharging them during periods of high emission electricity. The batteries can also be used to conduct rate arbitrage, by charging during times when electricity is cheapest and offsetting the peak (most expensive) power periods through use of stored energy. Power loss can lead to operational failure as key facilities and systems, including pumps and the water reclamation facility, may not be able to operate. Battery storage systems will also add increased operational resilience by allowing facilities to operate for periods of time without power from the grid.

Actions

- **Action I-4.1:** Conduct an assessment to identify existing battery storage capacity and priority locations for battery storage installation.
- **Action I-4.2:** Conduct a feasibility study to evaluate the opportunities for charging on-site batteries with on-site solar. Based on the study, require the design of the Pure Water Project Las Virgenes – Triunfo to identify battery storage solutions to mitigate impacts from power outages in addition to back-up generators powered by renewable fuel.
- **Action I-4.3:** Explore funding opportunities to obtain and install a combined total of 5 MW battery storage at critical facilities. Identify opportunities through the Inflation Reduction Act of 2022 incentives including Energy Infrastructure Reinvestment Financing and the Solar Investment Tax Credit.
- **Action I-4.4:** Continue time of use program that identifies and establishes permanent shifts of high-electricity use to times when renewable energy is plentiful through educational programs on energy and thermal storage, load timing/controls, pre-cooling/pre-heating, and other time-energy demand measures.

Target Metrics

- Energy storage solutions implemented
- Assessments completed
- Funding obtained
- 5 MW battery storage installed

GHG Emissions Reductions

- GHG Emissions Not Quantified[59]

Objectives

- Increased Operational Efficiency & Resource Management
- Improved Operational Flexibility & Reliability

59. GHG emissions were not quantified for Measure I-4 as energy storage systems in themselves do not lead to reductions in GHG emissions, however they do support GHG reductions associated with on-site renewable energy sources.

MEASURE I-5: Improve energy efficiency at LVMWD and JPA facilities and buildings.

Improving pump efficiency, installing LED lighting, and installing energy recovery systems will all reduce the total demand for electricity from LVMWD's and the JPA's systems, saving money and reducing GHG emissions. Improving equipment efficiency also aligns with the California Building Energy Efficiency Standards (Title 24).

Actions

- **Action I-5.1:** Identify aging equipment due for replacement throughout JPA and LVMWD facilities and identify energy efficient alternatives to use for the replacement (e.g., EnergyStar certifications). Prioritize energy efficient electric equipment over natural gas and diesel equipment, where feasible. Include a return on an investment analysis as part of the replacement process that evaluates the capital investment for an energy efficient alternative piece of equipment, cost savings associated with improved energy efficiency, and identifies any grants or rebates associated with such equipment replacement. For equipment identified in Action I-2.2 that received the infeasibility waiver, ensure energy efficiency alternatives are selected.
- **Action I-5.2:** Develop and implement a policy requiring new equipment to achieve EnergyStar Certification, where feasible.
- **Action I-5.3:** Conduct energy audits every 5 years and implement top energy recommendations. As part of CAAP monitoring, track energy improvements due to implementation of energy audit recommendations annually.
- **Action I-5.4:** Expand the utilization of automated lighting controls for indoor/outdoor lighting for JPA and LVMWD facilities pursuant to the current CEC Building Energy Efficiency Standards (Title 24, Part 6 and 11).
- **Action I-5.5:** Pursuant to the CEC 2022 Building Energy Efficiency Standards (Title 24, Part 6 and 11), require all new construction and building upgrades utilize light emitting diode (LED) lighting technology only.
- **Action I-5.6:** Continue to explore opportunities to employ artificial intelligence (AI) and machine learning (ML) to better optimize treatment processes and to increase energy efficiency.
- **Action I-5.7:** Require the implementation of cool roofs in the construction of all new and upgraded JPA and LVMWD facilities, to minimize absorption of solar energy and reduce building energy use.

Target Metrics

- Energy conserved
- Energy efficiency systems and upgrades implemented

GHG Emissions Reductions

- GHG Emissions Not Quantified

Objectives

- Increased Operational Efficiency & Resource Management
- Improved Operational Flexibility & Reliability

MEASURE I-6: Reduce process and fugitive GHG emissions associated with wastewater treatment.

Because technology for reducing methane emissions from wastewater treatment plants can be expensive and requires advanced planning, this measure is focused on preliminary feasibility analysis and investigating funding opportunities for future implementation. Technology is advancing and programs such as LCFS may provide cost-effective opportunities to convert captured methane to biofuel for electricity generation or vehicle fleet use. It is anticipated that wastewater emissions will become a major focus of California for reducing GHG emissions in the future, at which point additional incentives for this work are expected to become available. Additionally, implementation of the Pure Water Project Las Virgenes-Triunfo, will divert and treat effluent from the Tapia Water Reclamation Facility for potable reuse. The project will eliminate the need to discharge unused recycled water to Malibu Creek, minimizing associated fugitive GHG emissions to nearly zero.[60]

Actions

- **Action I-6.1:** Conduct a feasibility and cost analysis on the pathways to eliminate emissions associated with the biogas generated at Tapia Water Reclamation Facility through either biogas utilization, disposal or sale. The study should include an assessment evaluating the cost for upgrading the anaerobic digesters, opportunities for upgrading the biogas to pipeline quality biomethane, and opportunities for partnerships with other nearby biogas producers to sell the biogas to entities such as SCG looking to meet SB 1440.
- **Action I-6.2:** Investigate potential partnerships with entities looking to obtain biogas for fuel production for which LVMWD and the JPA could be a source.
- **Action I-6.3:** In alignment with the implementation of the Pure Water Project Las Virgenes - Triunfo, evaluate and track reductions in total Nitrogen to identify the amount of reduced fugitive emissions.

Target Metrics

- 97 percent reduction in fugitive emissions by 2030
- 97 percent reduction in fugitive emissions by 2045

GHG Emissions Reductions

- 5 MT CO_2e in 2030
- 6 MT CO_2e in 2045

Objectives

- Increased Operational Efficiency & Resource Management
- Improved Operational Flexibility & Reliability

60. EPA. Pure Water Project Las Virgenes-Triunfo. ***https://www.epa.gov/wifia/pure-water-project-las-virgenes-triunfo****. Accessed July 2023*

MEASURE I-7: Maximize backup power facilities for all critical assets.

As outlined for Measure I-4, procuring energy storage solutions to support LVMWD's and the JPA's facilities and buildings can support GHG emission reductions and mitigate impacts from power outages. Water utilities are one of the major electricity consumers in California. With future electricity demand forecasted to grow, water utilities are particularly at risk of localized energy shortages. Backup power facilities can provide resilience and redundancy to mitigate service disruptions during power outages.[61] This measure will reduce the potential impact of future power disruptions on key facilities and operations to provide future continuity of services across a wider range of conditions. New backup power facilities should be located outside of hazard areas or provided with adequate protection to mitigate potential damage and disruption.

Actions

- **Action I-7.1:** Catalogue fixed and mobile backup power requirements for all LVMWD and JPA facilities and develop design criteria/minimum requirements.
- **Action I-7.2:** Establish backup power policy/requirements that cover fixed and mobile solutions, staging, and procurement.
- **Action I-7.3:** Secure Hazard Mitigation Grant Program, California Governor's Office of Emergency Services (CAL OES), and other grant funding for battery energy storage solutions and renewable diesel.
- **Action I-7.4:** If deemed feasible, secure battery energy storage systems and new generators that use renewable fuel (e.g., renewable diesel, biodiesel, etc.) for Tapia Reclamation Facility, the Westlake Filtration Plant, Rancho Composting Facility, and future facilities such as the Advanced Water Purification Facility.

Target Metrics

- Assessments developed
- Battery storage solutions installed

GHG Emissions Reductions

- GHG Emissions Not Quantified

Objectives

- Improved Operational Flexibility & Reliability

MEASURE I-8: Support the regional development of dry and wet weather stormwater diversions as a supplementary source for recycled potable water.

Climate change exposures, such as an increase in prolonged periods of multi-year drought, are projected to increase the risk of reduced SWP and Colorado River deliveries. There is also an indication that more rain will fall from extreme weather events, which would increase the potential value of stormwater capture. LVMWD and the JPA will focus on developing and enhancing regional capabilities to increase dry and wet weather (stormwater) diversions as a supplementary source for recycled potable water.

Actions

- **Action I-8.1:** Partner with neighboring jurisdictions to identify opportunities to develop dry and wet weather diversions to reduce imported water.
- **Action I-8.2:** Position for funding programs, such as LA County Measure W, to fund design work to increase dry and wet weather diversions.
- **Action I-8.3:** Conduct an assessment to identify developing regulatory compliance issues associated with wet weather diversions and outline potential solutions.

Target Metrics

- Acre-feet of diversions
- Funding identified and obtained
- Assessment conducted

GHG Emissions Reductions

- GHG Emissions Not Quantified

Objectives

- Enhanced Water Supply Diversification

61. EPA. Climate Impacts on Water Utilities. ***https://www.epa.gov/arc-x/climate-impacts-water-utilities#tab-3****. July 2023*

MEASURE I-9: Improve the Supervisory Control and Data Acquisition (SCADA) System.

A projected increase in the frequency and severity of climate hazards, such as extreme heat and extreme precipitation, will stress the ability of staff to react and respond. A more capable SCADA system will enable more efficient reactions and responses to changing conditions and potentially reduce GHG emissions associated with water loss. A SCADA system provides LVMWD and the JPA with automation and redundant control capabilities. An improved SCADA system can connect employees to monitoring equipment that can provide information on flooding hazards, water quality, drainage levels, and much more, in real time. The SCADA system can report on maintenance issues and alert employees of critical issues that may be impacting water and wastewater operations.[62]

Actions

- **Action I-9.1:** Conduct an assessment to identify opportunities to upgrade or add field instrumentation hardware including sensors, actuators, relays, control units, and samplers such as for automatic leak detection throughout the distribution system. Utilize artificial intelligence (AI) and machine learning (ML) to automate SCADA data collection and analysis to provide additional operational improvements and achieve energy efficiency.
- **Action I-9.2:** Based on the assessment, procure field instrumentation hardware to adequately monitor and control all water system processes.
- **Action I-9.3:** Explore potential funding opportunities to finance SCADA system upgrades and improvements.
- **Action I-9.4:** Establish procedures to regularly conduct maintenance of SCADA systems to identify potential improvements and operational inefficiencies.
- **Action I-9.5:** Implement setpoint optimization techniques using AI and ML at Tapia Water Reclamation Facility, Lift Stations 1 and 2, and Rancho Las Virgenes Composting Facility.

Target Metrics

- Field instrumentation hardware procured
- Funding obtained
- Procedures established
- Setpoint optimization techniques implemented

GHG Emissions Reductions

- GHG Emissions Not Quantified

Objectives

- Increased Operational Efficiency & Resource Management
- Improved Operational Flexibility & Reliability
- Better Connected People and Water

62. *LVMWD. Phase 2 White Paper: Tapping into Available Capacity in Existing Infrastructure to Create Water Supply and Water Quality Solutions.* ***https://www.mwdh2o.com/media/3uyc3rvk/las-virgenes_phase-2_final-report.pdf***

MEASURE I-10: Require the incorporation and identification of mitigation and adaptation features into new capital projects.

Climate change is projected to increase the variability of precipitation, the extent of wildfire risk, the frequency and amount of extreme precipitation, the susceptibility of landslides, the frequency and duration of extreme heat events, and the length and frequency of power outages. The Infrastructure Investment Plan and other master planning documents should consider the vulnerability of facilities, infrastructure, and water resources to relevant climate change impacts.[63] This measure will guide future capital development to be designed with these future climate conditions and risks in consideration.

Actions

- **Action I-10.1:** Develop a process to prioritize when to apply and implement climate change-informed design criteria for flooding, extreme heat, landslides, wildfire and liquefaction.
- **Action I-10.2:** Integrate and regularly update best available climate science and projections into relevant planning documents and programs including the Urban Water Management Plan, Infrastructure Investment Plan, Hazard Mitigation Plan, Potable Water Master Plan, Recycled Water Mast Plan, Integrated Master Plan, and Sanitation Master Plan.
- **Action I-10.3:** Develop protocols to improve monitoring capabilities to ensure ongoing identification of vulnerable critical District assets in need of upgrades or retrofits.

Target Metrics

- Design criteria development and implemented
- Planning documents and programs updated

GHG Emissions Reductions

- GHG Emissions Not Quantified

Objectives

- Better Protected Water Resources
- Increased Operational Efficiency & Resource Management
- Improved Operational Flexibility & Reliability

63. EPA. Climate Impacts on Water Utilities. ***https://www.epa.gov/arc-x/climate-impacts-water-utilities#tab-3****. Accessed July 2023*

MEASURE I-11: Implement the Pure Water Project Las Virgenes-Triunfo.

Implementing the Pure Water Project Las Virgenes – Triunfo is key to providing reliable potable water and reducing dependence on imported water in the future. The project will eliminate discharges to Malibu Creek, minimizing contaminants into the creek and fugitive GHG emissions. In 2022, the JPA Board of Directors approved the Programmatic Environmental Impact Reports for the Pure Water Project, providing a path forward for construction of the Advanced Water Purification Facility.[64] To guide the development of this facility in a climate resilient manner that minimizes GHG emissions, LVMWD and the JPA will work with developers and a consultant team to incorporate climate projections and potential impacts into the design process. Energy efficient equipment and fixtures at Pure Water Project facilities will also be installed and opportunities will be explored to implement additional on-site renewable and battery storage to increase operational resilience and mitigate GHG emissions.

Actions

- **Action I-11.1:** Continue with efforts to partner with a design/build team to design, construct, test, commission, and obtain governmental approval for the Advanced Water Purification Facility.
- **Action I-11.2:** Require the consultant team to review and integrate future climate projections and potential impacts into the design of the Advanced Water Purification Facility.
- **Action I-11.3:** Obtain funding for additional advising services to study and mitigate climate risks and GHG emissions specifically to the Pure Water Project Las Virgenes - Triunfo, through the EPA's Water Infrastructure Finance and Innovation Act, State of California's Clean Water and Drinking Water State Revolving Fund (SRF) programs, and Metropolitan's Local Resources Program (LRP).
- **Action I-11.4:** In alignment with Action I-36, conduct a feasibility study to identify the future energy needs of the Pure Water Project Las Virgenes – Triunfo and identify opportunities to minimize GHG emissions through energy efficiency, on-site renewables, and low-carbon and carbon-free electricity procurement.

Target Metrics

- Climate projection and potential impacts integrated into design
- Feasibility study completed
- Funding obtained

GHG Emissions Reductions

- GHG Emissions Not Quantified

Objectives

- Enhanced Water Supply Diversification
- Increased Operational Efficiency & Resource Management
- Improved Operational Flexibility & Reliability

64. LVMWD. Pure Water Project Achieves Major Milestone. 2022. ***https://www.lvmwd.com/Home/Components/News/News/5988/22****. Accessed July 2023*

OPERATIONS MEASURES

MEASURE O-1: Electrify or otherwise decarbonize the vehicle fleet such that 75% of the vehicle fleet are zero-emission vehicles (ZEV) by 2030 and 100% of the vehicle fleet are ZEV by 2045.

California has developed a robust set of clean transportation policies and goals to decarbonize the transportation sector through implementation of ZEV technology, where feasible, and the use of low-carbon intensity fuels everywhere else. The Advanced Clean Cars II regulation requires that by 2035 all new passenger cars, trucks, and SUVs sold in California be zero emissions.[65]The Advanced Clean Fleets rule requires that fleets, businesses, and public entities that own or direct the operation of medium- and heavy-duty vehicles in California must transition to 100 percent zero-emission capable utility fleets by 2045. Under the regulation, LVMWD and the JPA may choose to purchase only ZEVs beginning in 2024 and remove internal combustion engine vehicles at the end of their useful life or elect to meet the State's ZEV milestone targets as a percentage of the total fleet starting with vehicle types that are most suitable for electrification.[66]

Transitioning fleet vehicles to either EVs powered by carbon-free electricity or other zero-emission technology has the potential to bring this source to zero over time. The State also has several incentive and funding programs to support vehicle replacement and to promote infrastructure development. By beginning to implement the Advanced Clean Fleet Rule, LVMWD and the JPA can access early action incentives. Transitioning to ZEV heavy-duty vehicles will be prioritized closer to 2045, as options become technologically and financially feasible.

Actions

- **Action O-1.1:** Conduct a study of the existing vehicle fleet to develop a schedule and policy to replace existing vehicles with EV/ZEV alternatives such that 75 percent of vehicles are replaced with EV/ZEV's by 2030 and 100 percent by 2045. Consider vehicle function, associated costs, available incentives, and ROI from potential fuel and maintenance savings when identifying vehicles for replacement and their EV/ZEV alternatives.
- **Action O-1.2:** For vehicles not identified for replacement by 2030 and/or vehicles that do not have EV/ZEV options available:
  - Evaluate options to reduce the weight of vehicles and integrate technology that monitors vehicle idleness, integrating efficient, smaller diesel engines before they can be electrified or otherwise decarbonized.
  - Consider partnering with heavy-duty EV companies to conduct pilots and facilitate advancements in technology for such vehicles.
  - Continue monitoring EV/ZEV availability and updating the vehicle replacement schedule to transition such vehicles by 2045.
- **Action O-1.3:** Complete an EV infrastructure plan to analyze charging needs through 2045 and beyond. As part of plan, create a prioritized list of EV charging/fueling infrastructure at specific locations.
- **Action O-1.4:** Partner with SCE's Charge Ready Program to plan and fund electric vehicle charger installations and panel upgrades at JPA and LVMWD facilities in alignment with the EV infrastructure plan.

Target Metrics

- 75 percent fleet conversion to ZEV by 2030
- 100 percent fleet conversion to ZEV by 2045

GHG Emissions Reductions

- 102 MT CO_2e in 2030
- 342 MT CO_2e in 2045

Objectives

- Increased Operational Efficiency & Resource Management
- Improved Operational Flexibility & Reliability

65. CARB. Advanced Clean Cars II. **https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii**. Accessed July 2023

66. CARB. Advanced Clean Fleets. **https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets**. Accessed July 2023

MEASURE O-2: Increase employee commute ZEV adoption to 25% by 2030 and 50% by 2045.

Providing educational information on available Zero Emission Vehicle (ZEV) incentives/rebates and preferential parking for ZEVs in support of California's ZEV goals will further lower LVMWD's carbon footprint associated with employee commutes. The increase of Electric Vehicles (EVs) and ZEV use by employees for commuting is inevitable with the establishment of Zero-Emission Vehicle Regulation, which requires auto manufacturers to provide more ZEVs for sale in California to achieve the State's goal of 100 percent of sales of new passenger vehicles to be ZEV by 2035.[67] Programs like LCFS and the Clean Transportation Program (AB 118) provide credits or funding, for developing ZEV fueling infrastructure to incentivize the development of necessary ZEV infrastructure to support the new ZEVs on the road. Furthermore, CARB established a rebate program for individuals to replace their vehicles with a ZEV. As such, it is anticipated that California's goals and incentives will lead to an increased use of ZEVs by LVMWD employees.

Current estimates indicate that approximately 40 percent of EV owners charge at work.[68] Given this fact, LVMWD and the JPA will install EV charging stations at its facilities for employees. Implementing this measure will encourage LVMWD employees to invest in personal EVs by reducing range anxiety, one of the leading reasons individuals opt to not switch to an EVs. This measure will also allow employees who live further away to commute via EV without worrying about making to work and back on a single charge.

Actions

- **Action O-2.1:** Install 30 additional EV chargers to support at least a 25 percent transition of employee-owned commuter vehicles to EV's or ZEV's (i.e., hydrogen fuel cell) by 2030. Locations should best serve commuters that report to different JPA and LVMWD facilities and optimize use of on-site solar generation.
- **Action O-2.2:** Identify partnerships and funding opportunities such as enrollment in the LCFS program for credit generation, federal tax credit under 30C Alternative Fuel Infrastructure Tax Credit, and SCE rebates and partnerships to offset the costs to install EV charging infrastructure for commuters.
- **Action O-2.3:** When feasible, incentivize employee conversion to ZEVs by offering discounted vehicle charging or fueling for commuters (charge for electricity only and not capital recovery for charging stations).
- **Action O-2.4:** Promote employee use of EV's or ZEVs by providing educational materials on the benefits of EV's and ZEVs, available federal and state tax credits, and ROI for employees given free workplace charging.

Target Metrics

- 25 percent transition to ZEV among employees by 2030 and 50 percent transition by 2045.

GHG Emissions Reductions

- 48 MT CO_2e in 2030
- 136 MT CO_2e in 2045

Objectives

- Increased Operational Efficiency & Resource Management

67. CARB. Zero-Emission Vehicle Regulation. **https://ww2.arb.ca.gov/our-work/programs/zero-emission-vehicle-program/about**. Accessed July 2023
68. Idaho National Laboratory. **https://avt.inl.gov/sites/default/files/pdf/arra/PluggedInSummaryReport.pdf**. Accessed July 2023

MEASURE O-3: Reduce employee commute Vehicle Miles Traveled (VMT) by 15% by 2030 and 30% by 2045.

While LVMWD and the JPA do not have direct control over the manner in which its employees travel to and from their jobs, they can facilitate alternative commute strategies, including use of active and shared/subsidized transit and continuing with implementation of a telework program. Working remotely during the COVID-19 pandemic has reduced commuter vehicle miles traveled at LVMWD and the JPA. Currently office workers, one third of staff, telework up to 2 days a week. LVMWD and the JPA have implemented a policy allowing for continued remote work in perpetuity, which will both prevent an increase in GHG emissions and reduce commuter vehicle miles travelled (VMT) for employees. LVMWD and the JPA will expand and provide benefits to employees who utilize alternative forms of transportation for their commute. Rideshare incentives, pre-tax benefits, and other solutions like commuter competitions can be implemented over time in support of the goal of achieving a reduction in employee commutes.

Actions

- **Action O-3.1:** Allow for continued benefits of a full or partial work-from-home policy where employees telecommute or utilize flexible schedule to reduce transit time, VMT, and GHG emissions.
- **Action O-3.2:** Identify opportunities to fund rideshare incentives to employees who carpool. Offer other incentives to employees to use an alternative mode of transportation to commute (e.g., public transportation, bikes).
- **Action O-3.3:** Provide preferred parking for carpooling vehicles to incentivize carpooling by employees. Evaluate opportunities for other incentives to offer to employees for carpooling or lower VMT.
- **Action O-3.4:** Promote employee use of carbon-free and low carbon transportation by providing educational materials on the benefits of commute options including public transportation, EV/ZEV options, and vanpools.

Target Metrics

- 15 percent reduction of VMT by 2030
- 30 percent reduction of VMT by 2045

GHG Emissions Reductions

- GHG Emissions Not Quantified

Objectives

- Increased Operational Efficiency & Resource Management

MEASURE O-4: Develop a net zero waste program such that waste sent to the landfill is reduced by 90% by 2030 and maintain through 2045.

Waste generation contributes a small amount to the overall GHG emissions from LVMWD and JPA operations. Except when there are equipment outages at the Rancho Composting Facility, biosolids are already diverted by being converted into compost for reuse on landscapes. A majority of the GHG emissions resulting from waste sent to the landfill are caused by decomposition of organic material under anaerobic conditions.[69] The remainder of the emissions come from inorganic wastes, such as plastic, which have both upstream and downstream emissions. Therefore, increasing the diversion of organic and inorganic waste streams is a primary measure to reduce waste related GHG emissions. In alignment with SB 1383[70] and AB 341[71], LVMWD and the JPA will develop and implement a waste diversion plan to reduce organic waste sent to the landfill by 75 percent using 2014 levels as a baseline and strive to achieve zero-waste sent to landfills by 2045. This would include but not be limited to organic waste from employee break rooms. Additionally, LVMWD and the JPA will report biosolid quantity and destination to CalRecycle in compliance with AB 901.[72]

Actions

- **Action O-4.1:** Implement a program to separate organic waste from other materials. Contract with local waste disposal companies to route organic waste to food recovery centers, anaerobic digestion, or composting facilities such that 75 percent of organics generated from JPA and LVMWD operations is collected and diverted from the landfill by 2025.
- **Action O-4.2:** Conduct a waste assessment, including records examinations, facility walk-throughs, and waste sorting, across all facilities to identify waste sources generated, identify purchasing and management practices, examine current waste reduction practices and their effectiveness, and prioritize the most effective waste reduction efforts on an area and materials-focused basis.
- **Action O-4.3:** Investigate funding opportunities to develop an organics program and deploy organic waste bins at all JPA and LVMWD facilities.
- **Action O-4.4:** Pursuant to AB 901, report the quantity and destination of disposed biosolids from wastewater treatment plants to CalRecylcle quarterly.
- **Action O-4.5:** Host staff training sessions to provide educational information on waste reduction practices to increase waste diversion at JPA and LVMWD facilities.

Target Metrics

- 75 percent organic waste reduction by 2025 compared with 2014 baseline73

GHG Emissions Reductions

- 133 MT CO_2e in 2030
- 153 MT CO_2e in 2045

Objectives

- Increased Operational Efficiency & Resource Management

69. *According to the Local Governments for Sustainability (ICLEI) U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions, Appendix E – Solid Waste Emission Activities and Sources, GHG emissions are generated by non-biologic wastes only if they are combusted.*
70. *CalRecycle. California's Short-Lived Climate Pollutions Reduction Strategy.* ***https://calrecycle.ca.gov/organics/slcp/****. Accessed July 2023*
71. *CalRecycle. Mandatory Commercial Recycling.* ***https://calrecycle.ca.gov/recycle/commercial/****. Accessed July 2023*
72 *"Grit" that is collected at the TWRF and hauled to the landfill is not included in the GHG inventory since little to no GHG emissions are associated with this component.*
73. *SB 1383, effective 2022, sets statewide emissions reduction targets to 40 percent below 2013 levels by 2030 for methane, 75 percent reduction in organic material disposed in landfills from 2014 levels by 2025 and required jurisdictions to adopt ordinances or other enforceable mechanisms to impose penalties for non-compliance. LVMWD will be required to comply with local jurisdictions ordinances established to meet SB 1383 requirements.*

MEASURE O-5: Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.

LVMWD has a long history of promoting water conservation, which has resulted in measurable reduction in retail water usage and indirectly reduces GHG emissions. LVMWD has had a number of successful water conservation programs such as providing indoor rebates for water efficient appliances, landscape rebate programs, practicing and promoting water-efficient irrigation and low water usage planting, and developing education programs for customers. LVMWD achieved a 20 percent reduction in per capita water use as required by the Water Conservation Act of 2009 as a direct result of these programs. LVMWD will expand these water conservation efforts to achieve further reductions in per capita water use that will align with new state regulations. Reduced per capita water consumption allows LVMWD to meet the water demands of a growing population, reduce operational emissions, and increase resilience to future drought impacts. A 20 percent reduction by 2030 will be based on 2020 consumption levels.

Actions

- **Action O-5.1:** Continue water conservation and recycling efforts and programs by implementing the Potable Master Plan, Integrated Regional Water Management Plan, Recycled Water Master Plan, Urban Water Management Plan, Water Shortage Contingency Plan, and Flow Restrictor Program.
- **Action O-5.2:** Implement the Pure Water Project Las Virgenes – Triunfo (Measure I-11) to reduce dependence on imported water and help ensure long-term water supply reliability.
- **Action O-5.3:** Continue to reduce recycled water use for irrigation by 25 percent and potable water by 20 percent by 2030 compared to 2020 consumption levels.
- **Action O-5.4:** Continue outreach and engagement efforts to increase registration to 80 percent and use of the WaterSmart Portal to aid customers in managing usage and identifying leaks.
- **Action O-5.5:** Expand programs which educate customers on water conservation initiatives through workshops and speaking engagements. Continue to host and expand participation in the LVMWD Landscape Workshop Series providing information on drought-tolerant landscaping, available rebates for water retrofits, and water efficiency strategies in new and existing single-family residences and commercial/multi-family accounts.
- **Action O-5.6:** Continue with efforts to implement a landscape management plan for the JPA and LVMWD that consolidates and expands upon the goals and policies for landscaping at JPA and LVMWD properties. Identify whether and where there are additional resource-consumptive landscapes on property that can be changed out to more water-conserving, slower growth plants that require less maintenance. Continue to implement potable water conservation strategies in landscape design and maintenance (such as replacing water intensive areas with drought-resilient native plants. using low-flow water fixtures, installing sophisticated irrigation software to control water, investing in systems to monitor pipe leakage, and limiting turf development).
- **Action O-5.7:** Require new and redeveloped LVMWD/JPA owned properties to be low water use through landscaping with climate appropriate plants, permeable paving, green infrastructure, and incorporating other low-impact development design features to allow for increased infiltration, even in heavy rains.
- **Action O-5.8:** Continue to implement and expand on successful water conservation rebate programs (e.g., high efficiency toilets and clothes washers, weather-based irrigation controller, etc.) with a focus on providing opportunities for outdoor water efficiency improvements such as rotating sprinkler heads, in alignment with the current Statewide water conservation goals.
- **Action O-5.9:** Develop and adopt a schedule for installation of water meters in existing buildings and irrigation zones to establish a water consumption baseline at JPA and LVMWD owned properties with the Facilities Division. Reduce JPA and LVWMD water consumption per capita at facilities in alignment with the current statewide goals.
- **Action O-5.10:** Explore methods such as the deployment of a floating solar array to reduce the rate of evaporation from water storage facilities (e.g., Las Virgenes Reservoir).

- **Action O-5.11:** Investigate new advanced technology systems to maximize the ground-water recovery wells in Westlake Village to maintain local water supply. Invest in such technology as it becomes feasible and cost-effective. Consider other innovative ideas such as maximizing the storage potential of the Russel Valley Basin by installing injection wells to store excess water for later extraction.
- **Action O-5.12:** Update rates and modify fixed fees as needed so that the majority of fixed costs for water and wastewater services continue to be captured regardless of the amount of water consumption and wastewater collection and treatment.

Target Metrics

- Reduced water consumption by 20 percent by 2030 and maintain through 2045

GHG Emissions Reductions

- 855 MT CO_2e in 2030
- 0 MT CO_2e in 2045[74]

Objectives

- Increased Operational Efficiency & Resource Management
- Improved Operational Flexibility & Reliability

74. Senate Bill 100 requires all electricity providers in the state to provide 100 percent carbon free electricity by 2045; therefore, no GHG emissions reductions can be gained from water conservation measures in 2045, since the emissions factor for electricity will be zero.

MEASURE O-6: Develop resource programs and protocols to protect staff from climate extremes.

Climate change is projected to increase regional wildfire risk which is expected to contribute to worsened air quality from wildfire smoke and associated toxins. LVMWD and the JPA are expected to experience an increase in the number of extreme heat days per year and an increase in overall average maximum temperature. Extreme heat events and wildfire smoke events can create or exacerbate health conditions of vulnerable District staff members. This measure seeks to reduce the potential health impacts to District staff. The first step for LVMWD and the JPA is to educate employees of the health and safety risks associated with climate extremes and to conduct outreach to understand employee concerns. Development and implementation of specific protocols that align with California's Division of Occupations Safety and Health's (Cal/OSHA) standards and protocols will help protect LVMWD employees.[75]

Actions

- **Action O-6.1:** Develop and distribute a survey to staff to identify climate change impacts that pose health and safety risks to employees. As part of the survey, ask employees which existing policies and programs adequately provide them with resources to mitigate impacts and ask what potential programs and policies may provide additional resources to limit health and safety concerns associated with climate hazards.
- **Action O-6.2:** Develop internal protocols for employees working under extreme heat conditions and air quality emergencies, in alignment with Cal/OSHA heat illness and prevention guidance.
- **Action O-6.3:** Develop protocols for wildfire emergencies and host annual practice/drills to ensure service continuity and employee safety.
- **Action O-6.4:** Provide employees with educational materials on relevant climate hazards and associated health and safety impacts (i.e., extreme heat induced health impacts) to increase awareness of risks and share best practices to increase adaptive capacity.

Target Metrics

- Develop and distribute survey to staff
- Develop protocols
- Develop and share education materials

GHG Emissions Reductions

- GHG Emissions Not Quantified

Objectives

- Better Connected People and Water

75. State of California Department of Industrial Relations. Heat Illness Prevention. https://www.dir.ca.gov/dosh/heatillnessinfo.html. *Accessed July 2023*

MEASURE O-7: Maximize operational flexibility and redundancies, including water transfer agreements, interties, flexible exchanges, additional system interconnections, and points of delivery.

Climate change is projected to increase the intensity, duration, and frequency of extreme heat and extreme weather events, which will increase the probability of power and water service disruptions. Additionally, LVMWD's potable water system is largely dependent on imported water supplies that may be subject to scheduled and unscheduled water delivery interruption that may impact the ability to deliver potable water. This measure seeks to increase redundancies and operational flexibilities to protect service continuity during emergency/hazard scenarios and potable water disruptions. LVMWD and the JPA have a history of fostering strong partnerships with local and regional entities including Calleguas Municipal Water District, Los Angeles Department of Water and Power (LADWP), and neighboring jurisdictions.[76] Developing interties, water transfer agreements, and other redundancies will improve future reliability.

Actions

- **Action O-7.1:** Partner with neighboring water providers, starting with District 29, to develop additional emergency water system interties to ensure water service continuity and reliability.
- **Action O-7.2:** Continue partnering with Calleguas Municipal Water District and LAWDP to improve connectivity with Metropolitan Water District's Colorado River Aqueduct (CRA) system via the East-West Feeder, Sepulveda Pass and other opportunities.
- **Action O-7.3:** Continue to coordinate with neighboring jurisdictions to ensure adequate water availability and peak load water supply for fire suppression efforts in alignment with CAL FIRE's recommendations.
- **Action O-7.4:** As necessary, increase storage capacity where feasible at water system facilities to prepare for wildfire and drought periods.

Target Metrics

- Agreements, interties, system interconnections and other redundancies developed

GHG Emissions Reductions

- GHG Emissions Not Quantified

Objectives

- Enhanced Water Supply Diversification
- Improved Operational Flexibility & Reliability
- Better Connected People and Water

76. LVMWD. Las Virgenes-Calleguas Interconnection Project. ***https://www.lvmwd.com/our-services/construction-projects/construction-projects-completed/las-virgenes-calleguas-interconnection-project****. Accessed July 2023*

NATURAL RESOURCES MEASURES

MEASURE NR-1: Investigate and implement carbon sequestration opportunities to offset all Water Reclamation Facility fugitive emissions by 2045.

This measure provides opportunities for negative emissions through carbon sequestration on natural and working lands (e.g., rangeland, forests, woodlands, wetlands and coastal areas, grasslands, shrubland, farmland, riparian areas, and urban green space). Carbon sequestration programs will be an important tool to mitigate some of LVMWD's and the JPA's emissions. While carbon sequestration programs can require a large investment up-front, this cost could be mitigated through credit generation opportunities based on CARB's "Carbon Capture and Sequestration protocol" adopted in 2018 as well as through other voluntary and Federal carbon markets.[77]

Actions

- **Action NR-1.1:** Conduct an assessment to identify the potential capacity for planting new trees, identify a timeframe for implementation, outline a management plan for existing trees, and establish a tracking system to assess progress towards an annual benchmark.
- **Action NR-1.2:** Partner with TreePeople or other organizations to develop and host an annual employee tree planting day.
- **Action NR-1.3:** Increase carbon sequestration by planting and supporting 25 new trees annually through 2030 to sequester carbon and create shade to reduce heat island effect.
- **Action NR-1.4:** Explore grant funding opportunities for tree planting. Identify and apply for applicable federal (e.g., USDA) and state (e.g., California ReLeaf, Affordable Housing and Sustainable Communities Program [AHSC], Urban and Community Forestry Program) available grants for Tree Planting projects.
- **Action NR-1.5:** As part of the Landscape Transformation Initiative, develop landscape guidance materials that include information regarding flora CO_2 sequestration potential to promote the incorporation of landscape plants that are both climate resilient and CO_2 sequestering. Climate resilient species have characteristics of drought tolerance, low water use, pest and disease resistance, fire-retardant or fire-resistance, and salinity tolerance. Consider vegetative options with higher CO_2 sequestration potential for JPA and LVMWD facilities landscaping.

Target Metrics

- 25 new trees planted annually through 2030

GHG Emissions Reductions

- 6 MT CO_2e in 2030
- 48 MT CO_2e in 2045

Objectives

- Better Protected Water Resources
- Increased Operational Efficiency & Resource Management

77. *CARB. 2023. Carbon Capture and Sequestration Protocol.* ***https://ww2.arb.ca.gov/resources/documents/carbon-capture-and-sequestration-protocol-under-low-carbon-fuel-standard#:~:text=California%20Air%20Resources%20Board,-Main%20navigation&text=The%20Carbon%20Capture%20and%20Sequestration,(CO2%2D%20EOR)****. Accessed July 2023*

MEASURE NR-2: Catalog and improve the stability of hillside monitoring and stabilization efforts after heavy rain events in areas at risk of landslides and debris flows to minimize impacts to infrastructure and equipment.

Climate change is projected to increase the frequency and intensity of extreme precipitation events and wildfires, which can increase landslides and debris flow susceptibility. This measure seeks to implement mitigation efforts to minimize infrastructure and equipment vulnerability to landslides and debris flows. Implementing landslide monitoring equipment can report critical data regarding slope stability/hillside movement and precipitation measurements. Equipment may also provide automated warming and alarms in advance of a potential hazard scenario.[78]

Actions

- **Action NR-2.1:** Conduct a landslide risk vulnerability assessment of critical assets to identify which assets are most vulnerable to damage from landslides and debris flows.
- **Action NR-2.2:** Install landslide monitoring equipment in landslide susceptibility areas that are adjacent to critical assets.
- **Action NR-2.3:** Based on the vulnerability assessment, conduct hardening upgrades to critical JPA and LVMWD assets that are most vulnerable to damage from landslides and debris flows.

Target Metrics

- Assets upgraded
- Monitoring equipment installed

GHG Emissions Reductions

- GHG Emissions Not Quantified

Objectives

- Better Protected Water Resources

78. Call&Nicholas Instruments, Inc. Real-Time Slope Monitoring. ***https://www.slideminder.com/****. Accessed July 2023*

MEASURE NR-3: Protect Las Virgenes Reservoir from sedimentation associated with extreme climate events.

Climate change is projected to increase the frequency and intensity of extreme precipitation and wildfires, which may trigger erosion and landslides, increasing sediment levels in Las Virgenes Reservoir which can lead to water quality impacts.[79] This measure seeks to protect Las Virgenes Reservoir from increased sedimentation through various sediment control management efforts that are focused to minimize erosion, remove sediment, and increase treatment capabilities.

Actions

- **Action NR-3.1:** Develop procedures to regularly measure reservoir sedimentation volume to determine the varying rates and patterns of potential storage loss.
- **Action NR-3.2:** Implement strategies to mitigate reservoir sedimentation including sediment removal by dredging or flushing.
- **Action NR-3.3:** Develop a vegetation and erosion management strategy to mitigate fire risk around Las Virgenes Reservoir to minimize potential post-fire soil erosion impacts on reservoir sedimentation.
- **Action NR-3.4:** Increase wastewater treatment capabilities to manage potential future sediment levels from future stormwater, landslide, wildfire, and erosion impacts.

Target Metrics

- Sediment level reduced

GHG Emissions Reductions

- GHG Emissions Not Quantified

Objectives

- Better Protected Water Resources

79. EPA. Climate Adaptation and Erosion and Sedimentation. ***https://www.epa.gov/arc-x/climate-adaptation-and-erosion-sedimentation****. Accessed July 2023*

MEASURE NR-4: Develop and implement a wildfire abatement and response policy.

Climate change is projected to increase the frequency and intensity of wildfire in the District's service area. LVMWD and JPA assets and infrastructure located in High, and Very High Fire Hazard Severity Zones are at greatest risk to impacts from wildfire. Wildfire can create risk of injury or death, damage to properties, critical facilities, infrastructure, and need for evacuation. Cascading impacts may also include worsened air quality, contaminated water supplies, power outages, and other service disruptions. This measure seeks to mitigate wildfire risk and potential future impacts through strategies that reduce vegetation and structural ignition, harden infrastructure and assets, and increase fire suppression capabilities. Relocating critical infrastructure and facilities outside of Fire Hazard Severity Zones should be considered if retrofits and upgrades are not feasible or provide adequate protection from potential fires.[80]

Actions

- **Action NR-4.1:** In the development of a wildfire abatement and response policy, develop strategies to mitigate risk from wildfire through defensible space, fire-safe landscaping, reduction of structural ignition, fire resistant retrofitting, fire suppression water flow, and vegetation management, in alignment with CAL FIRE guidance, standards, and building codes.
- **Action NR-4.2:** Develop criteria for future structure and facility developments to reduce vulnerability to ember ignition.
- **Action NR-4.3:** Dedicate staff time to identify funding (e.g., CAL FIRE or FEMA) to implement upgrades or retrofits to mitigate wildfire risk.
- **Action NR-4.4:** Conduct hardening upgrades to structures and facilities (i.e., reservoirs, pump structures, treatment facilities, and administrative offices) that are in CAL FIRE High and Very High Fire Hazard Severity Zones.
- **Action NR-4.5:** When retrofits and upgrades are not adequate or feasible, develop plans to relocate critical assets outside of CAL FIRE High and Very High Fire Hazard Severity Zones to the extent practicable.
- **Action NR-4.6:** Develop a schedule and monitor vegetative management efforts and defensible space relative to critical assets at risk.
- **Action NR-4.7:** Coordinate with CAL Fire, Los Angeles County Fire Department, and surrounding property owners to ensure adequate fire road access to critical JPA and LVMWD facilities.

Target Metrics

- Wildfire abatement and response policy development and implementation
- Facilities and structures retrofitted, upgraded, or relocated

GHG Emissions

- GHG Emissions Not Quantified

Objectives

- Better Protected Water Resources
- Improved Operational Flexibility & Reliability
- Better Connected People and Water

80. UC ANR et al. 2021. Wildfire & Water Supply in California. ***https://innovation.luskin.ucla.edu/wp-content/uploads/2021/12/Wildfire-and-Water-Supply-in-California.pdf****. Accessed July 2023*

7.

IMPLEMENTATION AND MONITORING STRATEGY



CAAP IMPLEMENTATION

This CAAP outlines specific measures and actions to achieve GHG emissions reduction and improve the resilience of LVMWD's and the JPA's operations to climate change. Implementation of the CAAP is planned to occur between 2023 and 2045. Due to the long implementation time-period of the CAAP, measures and actions may evolve over time as LVMWD and the JPA track progress, new technologies and legislation emerge, and funding opportunities for additional GHG emissions reduction and climate adaptation opportunities are identified. This section details an implementation plan for the CAAP, which will include transforming measures and actions into on-the-ground policies, programs, and projects. Implementation of this CAAP is grounded in science, best available data, and current best practices in climate action and adaptation planning.

Steps for Implementation: Action Prioritization

The CAAP will take a phased approach to action implementation.

- **Phase 1** will occur in the near-term (beginning of 2023–2026).
- **Phase 2** will include the implementation of mid-term actions (2026–2029).
- **Phase 3** will include the implementation of long-term actions (2029–2045).

Near-term actions with the greatest return for the least amount of investment, such as energy efficiency projects, water efficiency projects, and protocols/policies, often provide opportunities for early GHG reductions and climate adaptation from which future capital or time-intensive actions can build. Feasibility studies and surveys can often be completed in the near-term to set a foundation for long-term capital investments or infrastructure developments that will provide LVMWD and the JPA with significant GHG emissions reduction, lifecycle cost savings, and long-term resilience to the impacts of climate change.

Table 7-1 provides a summary of the priority measures and actions, as well as their identified phase, responsible department, and metrics for tracking. The CAAP primarily focuses on Phase 1 and 2 measures and actions. Over time additional actions may need to be adopted to achieve the long-term goal of carbon neutrality and further adapt to climate change. New technologies and approaches should be monitored and incorporated into future planning initiatives.

TRIUNFO WATER & SANITATION DISTRICT

LAS VIRGENES MUNICIPAL WATER DISTRICT

RESPONSIBLE PARTIES

Planned CAAP implementation and monitoring is central to the success of any CAAP in achieving GHG reduction targets and increasing resilience to climate change. Implementation planning involves identifying responsible parties for implementation. Several divisions within LVMWD and the JPA will play a key role in the CAAP's implementation and monitoring. Responsible parties are listed and described below.[81]

Facilities

The Facilities Division is responsible for the maintenance, regulatory compliance, and replacement needs of the District Headquarters, potable water, recycled water, and sanitation facilities. The Division will play a critical role in implementing waste, energy, and other resource reduction measures, carbon capture and sequestration measures, and several climate hazard mitigation measures at LVMWD and JPA facilities. The maintenance team will also be responsible for identifying opportunities to increase energy efficiency and to decarbonize vehicles, stationary equipment, and facilities.

Water Systems

The Water Systems Division is responsible for the day-to-day operations, and regulatory compliance of the potable water distribution, storage and treatments facilities and the recycled water storage and conveyance system. . The Division will play a key role in future implementation and operations of the Advanced Water Purification Facility for the Pure Water Project Las Virgenes - Triunfo, maximizing operational flexibility and redundancies, and increasing regional dry and wet weather diversions.

Water Reclamation

The Water Reclamations Division is responsible for the day-to-day operations and regulatory compliance of the Tapia Water Reclamation Facility. The Division will play a key role in efforts to reduce GHG emissions associated with wastewater treatment, increase wastewater treatment capabilities, and manage future battery storage systems at water system facilities.

Finance

The Finance Division is responsible for managing the purchasing processes, financing options, and cost-effectiveness of the District's operations. In collaboration with other departments and divisions, the Division will play a major role in identifying and administering funding and financing opportunities to support the implementation of CAAP actions, especially those that require significant capital investments including solar photovoltaics, EV chargers, and battery storage solutions.

*81. LVMWD. 2023. Management. **https://www.lvmwd.com/the-district/departments**. Accessed July 2023*

Human Resources

The Human Resources Division provides guidance and support to all departments for recruitment, selection, classification/salary structures, employee benefits, employee relations, employee training, labor negotiations, performance evaluations, employee development, safety and other personnel programs and processes. The Division will play a critical role in leading efforts to implement protocols and programs to protect staff from climate extremes and promoting continued efforts to support the teleworking program and other potential programs such as rideshares.

Information Systems

The Information Systems Division supports a local area network with servers, software applications, desktop computers, laptops, wireless access points, firewalls, switches, and closed-circuit television (CCTV) cameras. The Division also manages the SCADA system, web services, Multiprotocol Label Switching (MPLS) network, Voice Over Internet Protocol (VOIP) telephony, Geographic Information Systems (GIS) and many real-time IP based communications systems, such as security video applications. The Division will play a critical role in improving the SCADA system to increase operational efficiency, optimization, and control.

Engineering and Technical Services

The Engineering and Technical Servies Division is primarily responsible for project engineering and management, construction, and inspections. The Division will play a key role in conducting feasibility studies and assessments and managing capital improvement projects, such as onsite renewables, batter storage systems, and facility hardening upgrades.

Public Affairs and Communications

The Public Affairs and Communications Division manages external communications and works closely with local partners, including schools and community organizations to promote water awareness, water conservation, and environmental stewardship. The Division often supports and participates in local community events around these topics. The Division will play a key role in continuing and developing new outreach and engagement efforts around water conservation and climate resilient landscaping.

Resource Conservation

The Resource Conservation Division is responsible for the management of water resources and conservation efforts. The Division administers LVMWD's rebate programs including but not limited to the Weather-Based Irrigation and the Rain Barrel Giveaway/Rebate programs and the Landscape Transformation Program. The Division will play a key role in implementing CAAP efforts related to increasing water conservation, expanding rebate programs, and supporting the conversion from water intensive landscaping.

Customer Service

The Customer Service Division is responsible for customer billing, water meter installations and maintenance, water meter data management, the installation of flow restrictors and service shut-offs associated with wasteful water use, and other customer-centric tasks.

Table 7-1. Implementation Timeline by CAAP Action

Measure/ Action	Phase	Primary Implementing Divisions	Implementation Metric
Measure I-1 Utilize carbon-free electricity for 100% of electricity needs by 2030.			
I-1.1	2-3	Engineering and Technical Services, Facilities	MW of solar installed
I-1.2	1	Engineering and Technical Services, Facilities	Feasibility study completed
I-1.3	1	Engineering and Technical Services, Facilities	Assessment completed
I-1.4	1-2	Engineering and Technical Services, Facilities, Finance	Funding identified
I-1.5	2-3	Engineering and Technical Services, Facilities	MW of solar installed
I-1.6	1-2	Engineering and Technical Services, Facilities	Incorporate design elements to minimize GHG emissions
I-1.7	1	Engineering and Technical Services, Facilities, Finance	Analysis completed
I-1.8	1	Facilities	Switch to low carbon or carbon-free electricity
I-1.9	1	Engineering and Technical Services, Facilities	Study completed
Measure I-2 Electrify new and existing stationary equipment to reduce natural gas consumption 75% by 2030 and 100% by 2045.			
I-2.1	1	Engineering and Technical Services, Facilities	Survey completed
I-2.2	1	Facilities, Finance	Policy implemented
I-2.3	1-2	Facilities, Finance	Funding and partnership opportunities identified
I-2.4	1-3	Facilities	Schedule implemented
Measure I-3 Utilize renewable diesel and alternative fuels to bridge the technology gap and decarbonize stationary equipment to reduce diesel consumption by stationary equipment 100% by 2030.			
I-3.1	1	Facilities	Feasibility assessment completed
I-3.2	1-2	Facilities	Partners identified
I-3.3	1	Facilities, Finance	Policy implemented
I-3.4	1	Facilities	Educational materials developed
I-3.5	1-3	Facilities, Finance	LCFS credits monetized

Measure/ Action	Phase	Primary Implementing Divisions	Implementation Metric
Measure I-4 Increase energy storage at facilities and buildings.			
I-4.1	1	Engineering and Technical Services, Facilities	Assessment completed
I-4.2	1	Engineering and Technical Services, Facilities	Feasibility study completed; battery storage identified
I-4.3	1-2	Facilities, Finance	Funding opportunities identified
I-4.4	1-3	Facilities	Time of use program documentation
Measure I-5 Improve energy efficiency at facilities and buildings.			
I-5.1	1	Facilities, Water Systems, Water Reclamation	Equipment due for replacement identified; ROI analysis completed
I-5.2	1-3	Facilities, Water Systems, Water Reclamation	Policy developed and implemented
I-5.3	1-3	Facilities, Water Systems, Water Reclamation	Energy audits conducted; Energy recommendations implemented
I-5.4	1-3	Facilities, Water Systems, Water Reclamation	Automated lighting controls implemented
I-5.5	1-3	Facilities, Water Systems, Water Reclamation	Requirement implemented
I-5.6	1-3	Facilities, Water Systems, Water Reclamation	Electricity usage reduced
I-5.7	1-3	Engineering and Technical Services, Facilities	Cool roofs implemented
Measure I-6 Reduce process and fugitive GHG emissions associated with wastewater treatment.			
I-6.1	1-2	Engineering and Technical Services, Water Reclamation	Feasibility and cost analysis completed
I-6.2	1-2	Engineering and Technical Services, Water Reclamation	Partnerships identified
I-6.3	2-3	Engineering and Technical Services, Water Reclamation	Total nitrogen reduced
Measure I-7 Maximize backup power facilities for all critical assets, in alignment with Measure I-4			
I-7.1	1	Engineering and Technical Services, Facilities	Backup power facilities identified
I-7.2	1	Engineering and Technical Services, Facilities	Requirement established and implemented
I-7.3	1-2	Engineering and Technical Services, Facilities, Finance	Funding secured
I-7.4	1-2	Engineering and Technical Services, Facilities	Battery energy storage system procured; generators procured

Measure/ Action	Phase	Primary Implementing Divisions	Implementation Metric
Measure I-8 Support the regional development of dry and wet weather stormwater diversions as a supplementary source for recycled potable water.			
I-8.1	1	Engineering and Technical Services, Facilities, Water Reclamation, Water Systems	Acre-feet of diversions
I-8.2	1-2	Engineering and Technical Services, Facilities, Water Reclamation, Water Systems, Finance	Funding programs identified
I-8.3	1	Engineering and Technical Services, Facilities, Water Reclamation, Water Systems	Assessment conducted
Measure I-9 Improve the Supervisory control and data acquisition (SCADA) system.			
I-9.1	1	Information Systems, Water Systems, Water Reclamation	SCADA design criteria revised
I-9.2	1-2	Information Systems, Water Systems, Water Reclamation, Finance	Field instrumentation hardware procured
I-9.3	1-2	Information Systems, Water Systems, Water Reclamation, Finance	Funding obtained
I-9.4	1-2	Information Systems, Water Systems, Water Reclamation	Procedures established
I-9.5	1	Information Systems, Water Systems, Water Reclamation	Setpoint optimization techniques implemented
Measure I-10 Require the incorporation and identification of mitigation and adaptation features into new capital projects.			
I-10.1	1	Engineering and Technical Services, Facilities, Water Systems, Water Reclamation	Design criteria developed and implemented
I-10.2	1-3	Engineering and Technical Services, Facilities, Water Systems, Water Reclamation	Planning documents and programs updated
I-10.3	1	Engineering and Technical Services, Facilities, Water Systems, Water Reclamation	Protocols developed
Measure I-11 Implement the Pure Water Project Las Virgenes Triunfo.			
I-11.1	1-2	Engineering and Technical Services, Water Systems, Facilities, Finance	Advanced Water Purification Facility developed
I-11.2	1-2	Engineering and Technical Services, Water Systems, Facilities, Finance	Climate projections and potential impacts integrated into design
I-11.3	1-2	Finance	Funding obtained
I-11.4	1-2	Engineering and Technical Services, Water Systems, Finance	Feasibility study completed

Measure/ Action	Phase	Primary Implementing Divisions	Implementation Metric
Measure O-1 Electrify or otherwise decarbonize the vehicle fleet such that 75% of the vehicle fleet are zero-emission vehicles (ZEV) by 2030 and 100% of the vehicle fleet are ZEV by 2045.			
O-1.1	1	Facilities Maintenance, Finance	Study completed
O-1.2	1-2	Facilities	Pilots conducted
O-1.3	1	Engineering and Technical Services, Facilities	EV infrastructure plan completed
O-1.4	1-2	Engineering and Technical Services, Facilities, Finance	EV charger installations funded; Panels upgraded
Measure O-2 Increase employee commute ZEV adoption to 25% by 2030 and 50% by 2045.			
O-2.1	1-2	Facilities Maintenance	EV chargers installed
O-2.2	1-2	Facilities Maintenance, Finance and Accounting	Partnerships and funding opportunities identified
O-2.3	1	Facilities Maintenance, Finance and Accounting	Vehicle charging/fueling discounted
O-2.4	1	Facilities Maintenance	Education materials developed and disseminated
Measure O-3 Reduce employee commute VMT by 15% by 2030 and 30% by 2045.			
O-3.1	1-3	Human Resources	Employee commute VMT reduced
O-3.2	1-3	Facilities, Finance	Funding opportunities identified
O-3.3	1-3	Human Resources, Facilities, Finance	Preferred parking spots developed; Incentives offered
O-3.4	1-3	Human Resources, Finance, Public Affairs and Communications	Educational materials developed and disseminated
Measure O-4 Develop a net zero waste program such that waste sent to the landfill is reduced by 90% by 2030 and maintain through 2045.			
O-4.1	1	Resource Conservation, Facilities	Organic waste separation program implemented
O-4.2	1	Resource Conservation, Facilities	Waste assessment conducted
O-4.3	1-2	Resource Conservation, Facilities	Funding opportunities identified
O-4.4	1-3	Resource Conservation, Facilities	Quarterly reports completed
O-4.5	1-3	Resource Conservation, Facilities	Staff training sessions hosted

Measure/ Action	Phase	Primary Implementing Divisions	Implementation Metric
Measure O-5 Increase water conservation by reducing demands by at least 20% by 2030 and maintain through 2045.			
O-5.1	1-3	Resource Conservation, Customer Service, Public Affairs and Communications	Programs and plans implemented; Water conserved
O-5.2	2	Engineering and Technical Services, Facilities, Finance	Pure Water Project implemented
O-5.3	1-2	Resource Conservation, Customer Service, Public Affairs and Communications	Recycled water use reduced; Potable water use reduced
O-5.4	1-3	Customer Service	WaterSmart Portal Registrants
O-5.5	1-3	Resource Conservation	Workshops hosted
O-5.6	1	Resource Conservation	Landscape Management Plan prepared
O-5.7	1-3	Resource Conservation	Policy implemented
O-5.8	1-3	Resource Conservation	Water conservation rebates provided
O-5.9	1	Customer Service	Schedule developed; Water meters installed
O-5.10	1-2	Engineering and Technical Services, Facilities	Water evaporation rate reduced
O-5.11	1-2	Engineering and Technical Services, Facilities, Water Systems	Technology procured
O-5.12	1	Finance	Rate structure changes implemented
Measure O-6 Develop resource programs and protocols to protect staff from climate extremes.			
O-6.1	1	Human Resources	Survey developed and distributed
O-6.2	1	Human Resources	Protocols developed
O-6.3	1	Human Resources	Protocols developed; Practice/drills hosted
O-6.4	1	Human Resources, Public Affairs and Communications	Educational materials developed and disseminated

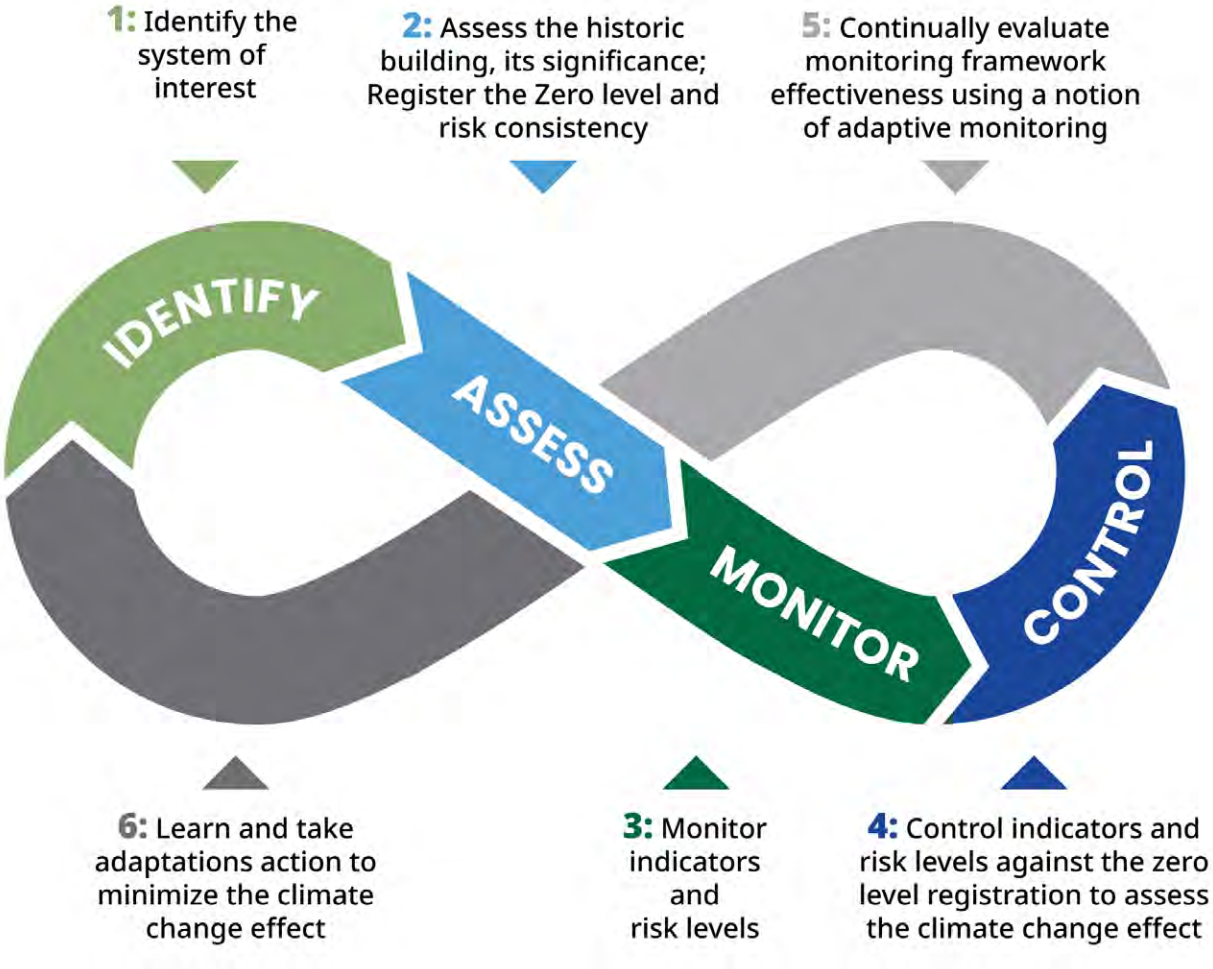
Measure/ Action	Phase	Primary Implementing Divisions	Implementation Metric
Measure O-7 Maximize operational flexibility and redundancies, including water transfer agreements, interties, flexible exchanges, additional system interconnections, and points of delivery.			
O-7.1	1-2	Engineering and Technical Services, Water Systems	Interties developed
0-7.2	1-3	Engineering and Technical Services, Water Systems	Connectivity improved
O-7.3	1-3	Engineering and Technical Services, Water Systems	Peak load water supply requirement met
O-7.4	1-2	Engineering and Technical Services, Water Systems	Water storage facilities developed
Measure NR-1 Investigate and implement carbon sequestration opportunities to offset all Water Reclamation Facility fugitive emissions by 2045.			
NR-1.1	1	Engineering and Technical Services, Resource Conservation	Assessment conducted
NR-1.2	1-3	Resources Conservation	Annual employee tree planting day hosted
NR-1.3	1-2	Resource Conservation	Trees planted
NR-1.4	1-2	Engineering and Technical Services, Resource Conservation, Finance	Funding opportunities identified and secured
NR-1.5	1	Resource Conservation	Landscape guidance materials developed and disseminated
Measure NR-2 Catalog and improve the stability of hillside monitoring and stabilization efforts after heavy rain events in areas at risk of landslides and debris flows to minimize impacts to District infrastructure and equipment.			
NR-2.1	1	Engineering and Technical Services	Vulnerability assessment completed
NR-2.2	1-3	Engineering and Technical Services	Landslide monitoring equipment installed
NR-2.3	1-3	Engineering and Technical Services	Assets upgraded
Measure NR-3 Protect the Las Virgenes Reservoir from sedimentation associated with extreme climate events.			
NR-3.1	1	Engineering and Technical Services, Water Systems	Procedures developed and implemented
NR-3.2	1-3	Engineering and Technical Services, Water Systems	Sediment removed
NR-3.3	1-2	Engineering and Technical Services, Water Systems	Vegetation and erosion management strategy developed and implemented
NR-3.4	1-2	Engineering and Technical Services, Water Systems	Sediment level reduced

Measure/ Action	Phase	Primary Implementing Divisions	Implementation Metric
Measure NR-4 Develop and implement a wildfire abatement and response policy.			
NR-4.1	1	Engineering and Technical Services, Facilities, Finance	Policy developed
NR-4.2	1	Engineering and Technical Services, Facilities, Finance	Criteria developed
NR-4.3	1-2	Engineering and Technical Services, Facilities, Finance	Funding identified and secured
NR-4.4	1-3	Engineering and Technical Services, Facilities, Finance	Structured and facilities upgraded
NR-4.5	2-3	Engineering and Technical Services, Facilities, Finance	Relocation plans developed
NR-4.6	1-3	Engineering and Technical Services, Facilities, Finance	Schedule developed
NR-4.7	1-3	Engineering and Technical Services, Facilities, Finance	Adequate fire road access maintained

CAAP MONITORING AND REPORTING ON PROGRESS

The climate action and adaptation planning process is infinitely iterative, as shown in Figure 7-1. As strategies and actions are implemented, it is imperative to assess success by tracking emissions reductions and variables such as cost and additional benefits achieved through implementation in order to understand the overall impact of each strategy. While substantial evidence suggests that the mitigation and adaptation measures and actions outlined in this CAAP have a high level of probability to achieve the 2030 target, consistent with SB 32, and increase resilience to climate change, uncertainty increases over time. If LVMWD and the JPA determine that implementation of specific strategies is not achieving the anticipated emissions reductions or resilience improvement, the strategy may have to be revised or replaced in order to establish a path forward to meet their ultimate goal of carbon neutrality by 2045.

Figure 7-1. CAAP Implementation and Monitoring Process



LVMWD CAAP Update Timeline

The Director of Engineering and External Affairs will report results on monitoring and implementation of each action, develop an updated GHG inventory, and report findings to LVMWD's and the JPA's Board of Directors annually. Every 5 years, the CAAP should be updated to include a revised GHG emissions forecast, assessment of climate change vulnerabilities, implementation status, and/or revised measures and actions. Technology, State legislation, funding, and operational changes over time may impact the rate of implementation and need for modification of the CAAP measures and actions. Therefore, the Director of Engineering and External Affairs will work with responsible department and division leaders to re-evaluate climate action and adaptation progress and factors influencing implementation. Through the evaluation process, LVMWD and the JPA may consider revising measures and actions in future CAAP updates.

Targets will be re-evaluated and assessed on a periodic basis to gauge progress made, address new regulations, and best practices, and evaluate LVMWD's and the JPA's ability to achieve GHG emissions reduction through the measures and actions outlined in Chapter 6. Additionally, climate change projections and potential impacts should be updated, as part of the Climate Change Vulnerability chapter (Chapter 3), in alignment with best available climate science. Measures and actions should be adjusted as more data and information become available to LVMWD and the JPA. They should also be tracked congruently with future State GHG reduction and climate adaptation legislation to ensure alignment.



Monitoring and Reporting Timeline

The CAAP implementation metrics will be monitored on an annual basis to track climate action and adaptation progress. The Director of Engineering and External Affairs will prepare an update on the implementation status of the CAAP's Measures (Table 7-1) on an annual basis, starting in 2024. As new technologies become available and new State mandates are adopted, LVMWD and the JPA may need to develop new or updated measures and actions. Re-evaluation of the CAAP's measures and actions will occur approximately every 5 years or more frequently. The Director of Engineering and External Affairs will report implementation monitoring results for each action, GHG inventory update results, and CAAP re-evaluation results to the LVMWD and JPA Board of Directors on an annual basis. Pictured below is the 5-megawatt solar field.



A.

APPENDIX



Table of Contents

Regulatory Context 1
International Climate Action Guidance 1
California Regulations and State GHG Targets 2

Regulatory Context

As the impacts of climate change are becoming clearer, strategies to address climate change are emerging at all levels of government. This section provides an overview of the regulatory context at the international, state, and local levels relative to LVMWD's and the JPA's actions toward reducing GHG emissions.

International Climate Action Guidance

1992 United Nations Framework Convention on Climate Change

The primary international regulatory framework for GHG reduction is the United Nations Framework Convention on Climate Change Paris Agreement (UNFCCC). The UNFCCC is an international treaty adopted in 1992 with the objective of stabilizing atmospheric GHG concentrations to prevent disruptive anthropogenic climate change. The framework established non-binding limits on global GHG emissions and specified a process for negotiating future international climate-related agreements.[1]

1997 Kyoto Protocol

The Kyoto Protocol is an international treaty that was adopted in 1997 to extend and operationalize the UNFCCC. The protocol commits industrialized nations to reduce GHG emissions per county-specific targets, recognizing that they hold responsibility for existing atmospheric GHG levels. The Kyoto Protocol involves two commitment periods during which emissions reductions are to occur, the first of which took place between 2008-2012 and the second of which has not entered into force. [2]

2015 The Paris Agreement

The Paris Agreement is the first-ever universal, legally binding global climate agreement that was adopted in 2015 and has been ratified by 189 countries worldwide.[3] The Paris Agreement establishes a roadmap to keep the world under 2° C of warming with a goal of limiting an increase of temperature to 1.5° C. The agreement does not dictate one specific reduction target, instead relying on individual countries to set nationally

1 United Nations Framework Convention on Climate Change (UNFCCC). United Nations Framework Convention on Climate Change. https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf
2 UNFCCC. What is the Kyoto Protocol? https://unfccc.int/kyoto_protocol
3 UNFCCC. Paris Agreement - Status of Ratification. https://unfccc.int/process/the-paris-agreement/status-of-ratification

determined contributions (NDCs) or reductions based on GDP and other factors. According to the International Panel on Climate Change (IPCC) limiting global warming to 1.5° C will require global emissions to reduce through 2030 and hit carbon neutrality by mid-century.[4]

California Regulations and State GHG Targets

California remains a global leader in the effort to reduce GHG emissions and combat climate change through its mitigation and adaptation strategies. With the passage of Assembly Bill (AB) 32 in 2006, California became the first state in the United States to mandate GHG emission reductions across its entire economy. To support AB 32, California has enacted legislation, regulations, and executive orders (EO) that put it on course to achieve robust emission reductions and address the impacts of a changing climate. The following is a summary of executive and legislative actions most relevant to the CAP Update.

2002 Senate Bill 1078

In 2002, SB 1078, established the California Renewables Portfolio Standards (RPS) Program and was accelerated in 2006 by SB 107, requiring that 20 percent of retail electricity sales be composed of renewable energy sources by 2010. EO S-14-08 was signed in 2008 to further streamline California's renewable energy project approval process and increase the State's RPS to the most aggressive in the nation at 33 percent renewable power by 2020.

2002 Assembly Bill 1493

In 2002, AB 1493, also known as the Pavley Regulations, directed the California Air Resources Board (CARB) to establish regulations to reduce GHG emissions from passenger vehicles to the maximum and most cost-effective extent feasible. CARB approved the first set of regulations to reduce GHG emissions from passenger vehicles in 2004, with the regulations initially taking effect with the 2009 model year.

2005 Executive Order S-3-05

Executive Order (EO) S-3-05 was signed in 2005, establishing Statewide GHG emissions reduction targets for the years 2020 and 2050. The EO calls for the reduction of GHG emissions in California to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. The 2050 emission reductions target would put the State’s emissions in line with the worldwide reductions needed to reach long-term climate stabilization as concluded by the IPCC *2007 Fourth Assessment Report*.

4 IPCC. Global Warming of 1.5 C. https://www.ipcc.ch/sr15/

2006 Assembly Bill 32

California's major initiative for reducing GHG emissions is outlined in AB 32, the "California Global Warming Solutions Act of 2006," which was signed into law in 2006. AB 32 codifies the Statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of Statewide GHG emissions.

Based on this guidance, CARB approved a 1990 Statewide GHG baseline and 2020 emissions limit of 427 million metric tons of CO_2 equivalent (MMT CO_2e). The Scoping Plan was approved by CARB on December 11, 2008, and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards,[5] and Cap-and-Trade) have been adopted since approval of the Scoping Plan.

In May 2014, CARB approved the first update to the AB 32 Scoping Plan. The 2014 Scoping Plan update defined CARB's climate change priorities for the next five years and set the groundwork to reach post-2020 Statewide goals. The update highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the State's longer-term GHG reduction strategies with other State policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

2007 Executive Order S-1-07

Also known as the Low Carbon Fuel Standard, EO S-1-07, issued in 2007, established a Statewide goal that requires transportation fuel providers to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. EO S-1-07 was readopted and amended in 2015 to require a 20 percent reduction in carbon intensity by 2030, the most stringent requirement in the nation. The new requirement aligns with California's overall 2030 target of reducing climate changing emissions 40 percent below 1990 levels by 2030, which was set by Senate Bill 32 and signed by the governor in 2016.

2007 Senate Bill 97

Signed in August 2007, SB 97 acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Natural Resources Agency adopted amendments to the State CEQA Guidelines for

5 On September 19, 2019, the National Highway Traffic Safety Agency (NHTSA) and the US Environmental Protection Agency (EPA) issued a final action entitled the One National Program on Federal Preemption of State Fuel Economy Standards Rule. This action finalizes Part I of the Safer, Affordable, Fuel-Efficient (SAFE) Vehicles Rule. This rule states that federal law preempts State and local tailpipe greenhouse gas (GHG) emissions standards as well as zero emission vehicle (ZEV) mandates. The SAFE Rule withdraws the Clean Air Act waiver it granted to California in January 2013 as it relates to California's GHG and zero emission vehicle programs.

the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and climate change impacts.

2008 Senate Bill 375

SB 375, signed in August 2008, enhances the State's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. In addition, SB 375 directs each of the State's 18 major Metropolitan Planning Organizations (MPOs), including the Metropolitan Transportation Commission (MTC), to prepare a "sustainable communities' strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the MPO's Regional Transportation Plan (RTP).

On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035.

2009 California Green Building Code

The California Green Building Standards Code (CALGreen) is Part 11 of the California Building Standards Code or Title 24 and is the first Statewide "green" building code in the nation. The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings. Enhancements include reduced negative impact designs, positive environmental impact designs, and encouragement of sustainable construction practices. The first CALGreen Code was adopted in 2009 and has been updated in 2013, 2016, and 2019. The CALGreen Code will have subsequent, and continually more stringent, updates every three years.

2009 Senate Bill X7-7

In 2009, SB X7-7, also known as the Water Conservation Act, was signed, requiring all water suppliers to increase water use efficiency. This legislation sets an overall goal of reducing per capita urban water use by 20 percent by2020.

2011 Senate Bill 2X

In 2011, SB 2X was signed, requiring California energy providers to buy (or generate) 33 percent of their electricity from renewable energy sources by 2020.

2012 Assembly Bill 341

AB 341 directed the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling. As of July 2012, businesses are required to recycle, and jurisdictions must implement a program that includes education, outreach, and monitoring. AB 341 also set a Statewide goal of 75 percent waste diversion by the year 2020.

2014 Assembly Bill 32 Scoping Plan Update

In 2014, CARB approved the first update to the Scoping Plan. This update defines CARB's climate change priorities and sets the groundwork to reach the post-2020 targets set forth in EO S-3-05. The update highlights California's progress toward meeting the near-term 2020 GHG emissions reduction target, defined in the original Scoping Plan. It also evaluates how to align California's longer-term GHG reduction strategies with other Statewide policy priorities, such as water, waste, natural resources, clean energy, transportation, and land use.

2014 Assembly Bill 1826

AB 1826 was signed in 2014 to increase the recycling of organic material. GHG emissions produced by the decomposition of these materials in landfills were identified as a significant source of emissions contributing to climate change. Therefore, reducing organic waste and increasing composting and mulching are goals set out by the AB 32 Scoping Plan. AB 1826 specifically requires jurisdictions to establish organic waste recycling programs by 2016, and phases in mandatory commercial organic waste recycling over time.

2015 Senate Bill 350

SB 350, the Clean Energy and Pollution Reduction Act of 2015, has two objectives: to increase the procurement of electricity from renewable sources from 33 percent to 50 percent by 2030 and to double the energy efficiency of electricity and natural gas end users through energy efficiency and conservation.

2015 Executive Order B-30-15

In 2015, EO B-30-15 was signed, establishing an interim GHG emissions reduction target to reduce emissions to 40 percent below 1990 levels by 2030. The EO also calls for another update to the CARB Scoping Plan.

2016 Senate Bill 32

On September 8, 2016, the governor signed SB 32 into law, extending AB 32 by requiring the State to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). The bill charges CARB to adopt the regulation so that the maximum technologically feasible emissions reductions are achieved in the most cost-effective way.

2016 Senate Bill 1383

Adopted in September 2016, SB 1383 requires CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. The bill requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels

- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

SB 1383 also requires CalRecycle, in consultation with CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills. The bill further requires 20% of edible food disposed of at the time to be recovered by 2025.

2017 Scoping Plan Update

On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 goal set by SB 32. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently adopted policies, such as SB 350 and SB 1383.

The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2014 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with Statewide per capita goals of six metric tons (MT) CO_2e by 2030 and two MT CO_2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects because they include all emissions sectors in the State.

2018 Senate Bill 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the State's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

2018 Executive Order B-55-18

Also, on September 10, 2018, the governor issued Executive Order B-55-18, which established a new Statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing Statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

2020 Advanced Clean Trucks Regulation

The Advanced Clean Trucks Regulation was approved on June 25, 2020. The regulation establishes a zero-emissions vehicle sales requirement for trucks or on-road vehicles over 8,500 lbs gross vehicle weight and set a one-time reporting requirement for large entities and fleets. Under the

regulation, manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55% of Class 2b – 3 truck sales, 75% of Class 4 – 8 straight truck sales, and 40% of truck tractor sales. Additionally, the regulation established a one-time reporting requirement for large entities and fleets where fleet owners, with 50 or more trucks, are required to report about their existing fleet operations by March 15, 2021.

2022 Senate Bill 1020

Adopted in September 2022, SB 1020 advances the state's trajectory to 100 percent clean energy procurement by 2045 by creating clean energy targets of 90 percent by 2035 and 95 percent by 2040. SB 1020 builds upon SB 100, which accelerated the state's RPS, which requires electricity providers to increase procurement from eligible renewable energy resources to 60 percent by 2030 and 100 percent by 2045.

2022 Assembly Bill 1279

Adopted in September 2022, AB 1279, codifies the statewide carbon neutrality goal into a legally binding requirement for California to achieve carbon neutrality no later than 2045 and ensure 85 percent GHG emissions reduction under that goal. AB 1279 builds upon EO B-55-18 which originally established California's 2045 goal of carbon neutrality.

2022 Scoping Plan Update

In November 2022, CARB adopted the 2022 Scoping Plan, which provides a framework for achieving the 2045 carbon neutrality goal set forth by AB 1279. The 2022 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently approved legislation, such as AB 1279.

The 2022 Scoping Plan includes, for the first time, a robust discussion of the Natural and Working Lands (NWL) sectors as both sources of emissions and carbon sinks. The Plan also centers equity when outlining state climate investments and climate mitigation strategies. As with the 2014 and 2017 Scoping Plans, the 2022 Scoping Plan does not provide project-level thresholds for land use development.

2022 Advanced Clean Cars II

The Advanced Clean Cars II regulation was adopted in August 2022. The regulation amends the Zero-emission Vehicle Regulation to require an increasing number of zero-emission vehicles, and relies on advanced vehicle technologies, including battery electric, hydrogen fuel cell electric and plug-in hybrid electric-vehicles, to meet air quality, climate change emissions standards, and Executive Order N-79-20, which requires that all new passenger vehicles sold in California be zero emissions by 2035. The regulation also amends standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions.

2023 Advanced Clean Fleet

Approved by CARB on April 28, 2023, the Advanced Clean Fleets Regulation requires fleets, businesses, and public entities that own or direct the operation of medium- and heavy-duty vehicles in California to transition to 100 percent zero-emission capable utility fleets by 2045. Under the regulation, fleet operators may choose to purchase only ZEVs beginning in 2024 and remove internal combustion engine vehicles at the end of their useful life or fleet operators may elect to meet the State's ZEV milestone targets as a percentage of the total fleet starting with vehicle types that are most suitable for electrification.



LAS VIRGENES MUNICIPAL WATER DISTRICT EST. 1958

Las Virgenes
Municipal Water District

4232 Las Virgenes Rd
Calabasas, CA 91302

(818) 251-2100

www.lvmwd.com

AGENDA ITEM NO. 8.B

DATE: April 7, 2026

TO: Board of Directors

FROM: General Manager

SUBJECT: Public Hearing on Vacancies and Recruitment and Retention Efforts

---

SUMMARY:

Assembly Bill No. 2561 was introduced in February 2024 to address the issue of job vacancies in local government, which can adversely affect the delivery of public services and employee workloads. Among other requirements, the bill requires that public agencies present the status of vacancies and recruitment and retention efforts during a public hearing before their governing body at least once per fiscal year.

The bill was signed by Governor Gavin Newsom on September 22, 2024, and codified as Government Code Section 3502.3, which became effective on January 1, 2025. The Board conducted its first public hearing on the matter on April 1, 2025, and Human Resources staff provided a verbal presentation to satisfy the District's legal obligations under the new law. This year, the Board will conduct the public hearing on April 7, 2026, and Human Resources staff will provide an updated verbal presentation to satisfy the District's legal obligations under the law.

RECOMMENDATION(S):

Conduct a public hearing on vacancies and recruitment and retention efforts in compliance with Assembly Bill No. 2561.

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

There is no direct financial impact associated with conducting a public hearing pursuant to Government Code Section 3502.3. However, addressing recruitment and retention issues could involve future budgeting and bargaining considerations, which would be presented to the Board in the future, as necessary.

DISCUSSION:

Pursuant to Government Code Section 3502.3, the District is required to do the following:

1. Public Hearing: At least once each fiscal year, at a public hearing before the Board of Directors, the District shall present information regarding the status of vacancies and recruitment and retention efforts and identify any necessary changes to policies, procedures and recruitment activities that may lead to obstacles in the hiring process.

If the Board of Directors adopts an annual or multi-year budget during the fiscal year, the presentation must occur prior to the Board's adoption of the final budget for the District.

2. Employee Organization Participation: Allow the recognized employee organization for each bargaining unit at the District to make presentations during the public hearing concerning vacancies and recruitment and retention efforts. There are four bargaining units at the District: the Service Employees International Union (SEIU) General Unit; SEIU Office Unit; Supervisor, Professional and Confidential (SPC) Unit; and Management Unit. Human Resources staff have notified the District's four bargaining units of the public hearing and advised them of their opportunity to address the Board on the matter.

3. Additional Reporting for High Vacancy Rates: If vacancies within a single bargaining unit meet or exceed 20 percent of authorized full-time positions in that bargaining unit, upon request of the recognized employee organization for that bargaining unit, the District must provide additional information during the public hearing, including the following: (1) the total number of vacancies; (2) the number of applicants; (3) the average time to fill positions; and (4 opportunities to improve compensation and working conditions for employees in the bargaining unit.

No vacancy rates within any of the District's four bargaining units meet or exceed 20 percent of authorized full-time positions in that bargaining unit. Therefore, Item No. 3 above does not apply to the District and is not included in this presentation. The presentation does detail the vacancy rate, number of vacancies, and status of vacancies for each bargaining unit, among other information pertaining to the District's recruitment and retention efforts.

Attached for reference are the presentation slides.

GOALS:

Assure a Quality, Continually Improving Workforce

Prepared by: Maria Songer, Principal Human Resources Analyst

ATTACHMENTS:
AB 2561 Public Hearing Presentation for 2026

Assembly Bill 2561 Public Hearing

Status of Las Virgenes Municipal Water District Vacancies and Recruitment and Retention Efforts

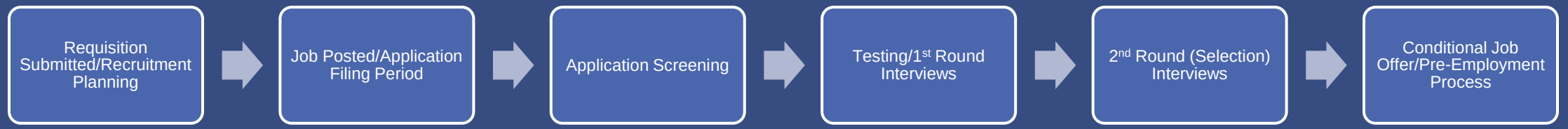
Presented by Human Resources

March 17, 2026

Assembly Bill (“AB”) 2561

- A public agency shall present information on the following during a public hearing before the governing board at least once per fiscal year:
  - (1) the status of vacancies;
  - (2) recruitment and retention efforts; and
  - (3) any necessary changes to policies, procedures, and recruitment activities that may lead to obstacles in the hiring process.
- If the vacancy rate is at least 20% in a bargaining unit, additional obligations may apply.

Recruitment & Selection Process Overview



Recruitment Information - Calendar Year 2025

- 130 budgeted positions
- 24 recruitments posted
- 24 vacancies filled
  - 15 new hires
  - 9 promotions

Vacancy Rates as of March 2, 2026

- 130 budgeted positions; 4 vacancies
- District-wide vacancy rate: 3.08% (4 vacancies/130 positions)
- Vacancy rate by bargaining unit:

Bargaining Unit	# of Vacancies	# of Positions	Vacancy Rate
General Unit	3	60	**5.00%**
Office Unit	0	18	**0.00%**
Supervisor, Professional, & Confidential (SPC) Unit	1	35	**2.86%**
Management Unit	0	9	**0.00%**
Executive/Unrepresented	0	8	**0.00%**

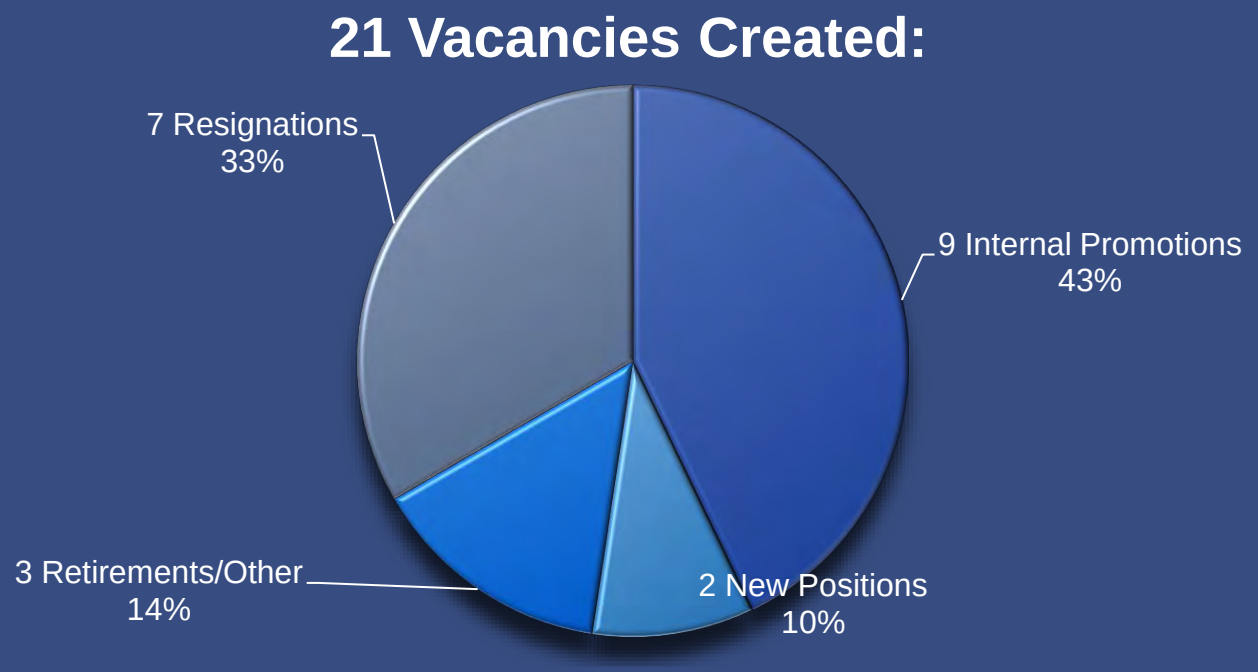
Status of Vacancies as of March 2, 2026

Position	Bargaining Unit	Cause of Vacancy	Status
Electrical/Instrumentation Technician I/II	General Unit	Retirement	2nd Round Interviews
Water Reclamation Plant Operator OIT/I/II/III	General Unit	Resignation	2nd Round Interviews
Water Reclamation Plant Operator OIT/I/II/III	General Unit	Retirement	2nd Round Interviews
Financial Analyst I/II	SPC Unit	Promotion	2nd Round Interviews

Hiring Issues and Solutions

- The District continuously reviews applicable policies, procedures, and recruitment activities to identify any potential obstacles in the District's hiring process/recruitment efforts and makes changes in the following areas to address these obstacles.
  - Hiring Policies
  - Recruitment Process
  - Salary & Benefits
  - Classifications, Job Descriptions, & Position Requirements
  - Advertising & Outreach
  - Staff Development
- The District is actively engaged in water industry workforce development efforts at the regional and state level.

Retention Information – Calendar Year 2025



2025 Separation Rate: 7.69% (10 separations/130 budgeted positions)

2025 Staffing Turnover Rate: 5.38% (7 resignations/130 budgeted positions)

Retention Efforts

- Organizational & Staffing Analysis
- Workforce Development
- Employee Benefits
- Employee Input/Feedback
- Employee Events & Recognition
- Employee Relations

It comes full circle…attract, engage, retain

All of these retention efforts contribute to a positive workplace culture, which is key in allowing the District to attract, engage, and retain top talent.

Questions/Comments?

AGENDA ITEM NO. 9.A

DATE: April 7, 2026

TO: Board of Directors

FROM: External Affairs

SUBJECT: Draft 2025 Urban Water Management Plan: Notice of Availability

---

SUMMARY:

The District is currently preparing its 2025 Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP). The UWMP is a long-term water resources planning document required by the California Water Code for all urban water suppliers. The UWMP will guide the District's water resources planning for the next 20 years. The WSCP is an additional document that is being prepared in conjunction with the 2025 UWMP to ensure that the District is well-prepared for potential future water shortages. The District's draft 2025 UWMP and WSCP are currently available for public review.

RECOMMENDATION(S):

Review and provide feedback on the draft 2025 Urban Water Management Plan.

FINANCIAL IMPACT:

There is no financial impact associated with this action.

DISCUSSION:

In June 2025, the District retained the services of Stantec Consulting, Inc., to prepare an update to its 2025 UWMP. Stantec has developed the District's 2025 UWMP, which has been reviewed by staff. A draft of the document was made available for public review in March 2026, on the District's website at the following link:

https://www.lvmwd.gov/urban-water-management-plan

Pursuant to Section 10621(b) of the California Water Code, the District provided a 60-day advance notice of its intent to prepare the 2025 UWMP to local agencies and affected cities. Notices were sent to all city and county agencies that receive water from the District. The notification letters were sent in March 2026, to the following agencies and municipalities, in anticipation of the planned adoption of the UWMP in June 2026 with submission to the California Department of Water Resources prior to the July 1, 2026, UWMP deadline:

- Triunfo Water & Sanitation District
- Metropolitan Water District of Southern California
- Calleguas Municipal Water District
- City of Hidden Hills
- City of Malibu
- Ventura County
- Los Angeles County Department of Regional Planning
- City of Calabasas
- City of Westlake Village
- City of Simi Valley
- City of Agoura Hills

A public hearing to receive comments and recommend adoption of the 2025 UWMP is planned for June 16, 2026, which is a regularly scheduled Board meeting. The meeting will be announced through multiple advertisements and on the District's website pursuant to Water Code Section 10642 and Government Code Section 6066. The public hearing has been scheduled to allow sufficient time for public review and comment, while meeting the July 1, 2026, submission deadline.

GOALS:

Sustain Community Awareness and Support

Prepared by: Cindy Chau, Management Analyst

ATTACHMENTS:
Draft 2025 Urban Water Management Plan

2025 Urban Water Management Plan
Las Virgenes Municipal Water District

PUBLIC DRAFT



Stantec Consulting Services Inc.

March 20, 2026

Stantec Project Number: 184031915

Table of Contents

Acronyms / Abbreviations ..... **vi**

Chapter 1. Urban Water Management Plan Introduction and Lay Description **1-1**
1.1 Background and Purpose 1-1
1.2 Updated Guidance for 2025 Urban Water Management Plans 1-2
1.2.1 Changes in the Act Since 2020 1-2
1.3 Lay Description 1-3
1.3.1 LVMWD's Water System, Supply, and Demand 1-3
1.3.2 SBx7-7 2020 Target 1-4
1.3.3 Water Service Reliability 1-4
1.3.4 Water Shortage Contingency Plan 1-4
1.3.5 Demand Management Measures 1-4
1.4 Urban Water Management Plans in Relation to Other Efforts 1-5
1.4.1 Specific Considerations 1-5

Chapter 2. Urban Water Management Plan Preparation **2-1**
2.1 Basis for Preparing a Plan 2-1
2.1.1 Suppliers With Both Wholesale and Retail Sales 2-1
2.1.2 Public Water Systems 2-1
2.2 Individual or Regional Plans 2-2
2.3 Fiscal or Calendar Year and Units of Measure 2-3
2.3.1 Fiscal or Calendar Year 2-3
2.3.2 Units of Measure 2-3
2.4 Coordination and Outreach 2-4
2.4.1 Wholesale and Retail Coordination 2-4
2.4.2 Coordination with Other Agencies and the Community 2-5
2.4.3 Notice to Cities and Counties 2-5

Chapter 3. Service Area Description **3-1**
3.1 General Description 3-1
3.1.1 Water System Description 3-1
3.1.2 Recently Completed Projects 3-1
3.1.3 Facilities in Construction 3-2
3.1.4 Projects in Design 3-2
3.2 Service Area Boundary Maps 3-3
3.3 Service Area Climate 3-5
3.4 Service Area Population and Demographics 3-5
3.4.1 Service Area Population 3-5
3.4.2 Other Social, Economic, and Demographic Factors 3-8
3.5 Land Uses within Service Area 3-8
3.5.1 Service Area Geography 3-9

Chapter 4. Water Use Characterization **4-1**
4.1 Non-Potable Versus Potable Water Use 4-1
4.2 Past, Current, and Projected Water Use by Sector 4-2
4.2.1 Water Use Sectors Listed in Water Code 4-2
4.2.2 Optional Water-Use Sectors in Addition to Those Listed in Water Code 4-3
4.2.3 Past Water Use 4-3
4.2.4 Current Water Use 4-4
4.2.5 Projected Water Use 4-4

4.3 Distribution System Water Losses 4-12
4.3.1 Previous Five Years Distribution System Losses 4-12
4.3.2 Progress Toward Meeting the Water Loss Performance Standard 4-13

Chapter 5. SBX7-7 Baseline, 2020 Targets, and 2025 Reporting 5-1

Chapter 6. Normal-Year Water Supply Characterization 6-1
6.1 Water Supply Analysis Overview 6-1
6.1.1 Specific Analysis Applicable to All Water Supply Sources 6-1
6.1.2 Special Considerations 6-3
6.2 Water Supply Characterization 6-4
6.2.1 Purchased or Imported Water 6-4
6.2.2 Groundwater 6-8
6.2.3 Surface Water 6-13
6.2.4 Wastewater and Recycled Water 6-13
6.2.5 Desalinated Water Opportunities 6-25
6.2.6 Water Exchanges and Transfers 6-26
6.2.7 Supply From Storage 6-27
6.2.8 Future Water Projects 6-28
6.2.9 Summary of Existing and Planned Sources of Water 6-30
6.3 Energy Use 6-33

Chapter 7. Water Service Reliability and Drought Risk Assessment 7-1
7.1 Constraints on Water Sources Considerations 7-1
7.2 Water Service Reliability Assessment 7-2
7.2.1 WSRA Year-Type Characterization 7-2
7.2.2 WSRA Supply and Demand Comparison 7-4
7.2.3 WSRA Description of Management Tools and Options 7-8
7.3 Drought Risk Assessment 7-9
7.3.1 DRA Data, Methods, and Basis for Water Shortage Conditions 7-9
7.3.2 DRA Individual Water Source Reliability 7-9
7.3.3 DRA Total Water Supply and Use Comparison 7-13

Chapter 8. Water Shortage Contingency Plan 8-1
8.1 Water Supply Reliability Analysis 8-1
8.2 Annual Water Supply and Demand Assessment Procedures 8-1
8.2.1 Decision-Making Process 8-1
8.2.2 Data and Methodologies 8-1
8.3 Six Standard Water Shortage Stages 8-2
8.4 Shortage Response Actions 8-3
8.4.1 Supply Augmentation 8-7
8.4.2 Demand Reduction 8-7
8.4.3 Operational Changes 8-10
8.4.4 Additional Mandatory Restrictions 8-11
8.4.5 Emergency Response Plan 8-11
8.4.6 Seismic Risk Assessment and Mitigation Plan 8-11
8.4.7 Shortage Response Action Effectiveness 8-13
8.5 Communication Protocols 8-13
8.6 Compliance and Enforcement 8-14
8.7 Legal Authorities 8-15
8.7.1 Legal Authorities 8-15
8.7.2 Declaration of Water Shortage 8-15
8.7.3 Proclamation of Local Emergency 8-15

8.8 Financial Consequences of a Water Shortage Contingency Plan 8-16
8.8.1 Financial Impacts and Mitigation Action 8-16
8.8.2 Reporting Cost of Compliance with Excessive Water Use Prohibition During Drought Emergency 8-16
8.9 Monitoring and Reporting 8-17
8.10 WSCP Refinement Procedures 8-17
8.11 Special Water Feature Distinction 8-17
8.12 Plan Adoption, Submittal, and Availability 8-17

Chapter 9. Demand Management Measures 9-1
9.1 Demand Management Measures for Retail Suppliers 9-1
9.1.1 Implementation over the Past Five Years 9-1
9.1.2 Implementation to Achieve Water-Use Targets 9-2
9.1.3 Required Demand Management Measures 9-2

Chapter 10. UWMP Adoption, Submittal, and Implementation 10-1
10.1 Plan Completion Timeline 10-1
10.2 Notice of Plan Preparation 10-1
10.3 Notice of Public Hearing 10-2
10.4 Public Hearing and Adoption 10-2
10.5 Plan Submittal 10-2
10.5.1 Submitting a UWMP and WSCP to DWR 10-2
10.5.2 Electronic Data Submittal 10-2
10.5.3 Submitting a UWMP, Including WSCP, to the California State Library 10-2
10.5.4 Submitting a UWMP to Cities and Counties 10-3
10.6 Public Availability 10-3
10.7 Notification to Public Utilities Commission 10-3
10.8 Plan Implementation 10-3
10.9 Amending an Adopted UWMP or WSCP 10-3
10.9.1 Amending a UWMP or WSCP 10-3
10.9.2 Submitting Revised UWMP or WSCP 10-3
10.10 California DWR Review of Submitted Plans 10-3

Appendix A Notification Letters 1

Appendix B Public Notification 1

Appendix C Adoption Resolution & Hearing Agenda 1

Appendix D DWR Checklist 1

Appendix E Water Loss Calculator 1

Appendix F LVMWD Hazard Mitigation Plan 1

Appendix G Reduced Delta Reliance Reporting 1
1.0 Background 1
2.0 Summary of Expected Outcomes for Reduced Reliance on the Delta 2
2.1 Expected Outcomes for Regional Self-Reliance 2
3.0 Demonstration of Reduced Reliance on the Delta 2
3.1 Baseline Calculations 3
4.0 Water Supplies Contributing to Regional Self-Reliance 5
5.0 UWMP IMPLEMENTATION 7



List of Submittal Tables

Submittal Table 2-1 Retail: Public Water Systems 2-2
Submittal Table 2-2: Plan Identification 2-2
Submittal Table 2-3: Supplier Identification 2-3
Submittal Table 2-4 Retail: Water Supplier Information Exchange 2-4
Submittal Table 3-1 Retail: Population – Current and Projected 3-8
Submittal Table 4-1 Retail: 2025 Actual Total Uses for Potable and Non- Potable Water 4-4
Submittal Table 4-2 Retail: Total Use for Potable and Non-Potable Water – Projected 4-8
Submittal Table 4-3 Retail: Inclusion in Water Use Projections 4-10
Submittal Table 4-4 Retail: Water Loss Audit Reporting 4-13
Submittal Table 4-5 Retail: Progress Towards 2028 Water Loss Standard 4-15
Submittal Table 5-1 Retail: SBx7-7 2020 Target Progress 5-1
Submittal Table 6-1 Retail: Groundwater Volume Pumped 6-12
Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2025 6-16
Submittal Table 6-3 Retail: Wastewater Treatment and Outcomes Within UWM Service Area in 2025 6-18
Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area 6-22
Submittal Table 6-5 Retail: 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual 6-23
Submittal Table 6-6 Retail: Methods to Encourage Future Recycled Water Use 6-25
Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs 6-29
Submittal Table 6-8 Retail: Water Supplies- 2025 Actual 6-31
Submittal Table 6-9 Retail: Water Supplies- Projected 6-32
Optional Submittal Table 7-1R: Basis of Water Year Data (Reliability Assessment) 7-3
Submittal Table 7-2 Retail: Normal Year Supply and Use Comparison 7-6
Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison 7-7
Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison 7-8
Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment 7-13
Submittal Table 8-1: Cross-reference for Standard vs Supplier Shortage Levels CWC 10632(a)(3)(B) 8-3
Submittal Table 8-2: Retail: Supply Augmentation and Other Actions 8-7
Submittal Table 8-3: Retail: Demand Reduction Actions 8-8
Submittal Table 10-1: Retail: Notification to Cities and Counties 10-1

List of Supplemental Tables

Table 2-A. LVMWD Coordination and Notification for Plan Preparation 2-5
Table 3-A. LVMWD Average Seasonal Climate Characteristics 3-5
Table 3-B. Housing and Population Projections from 2025 to 2045 3-7
Table 4-A. 2025-2045 RHNA Assigned Units of Cities within LVMWD 4-11
Table 4-B. Last Five Years of Water Loss Audit Reporting 4-13
Table 6-A: MWD Member Cities and Agencies 6-5
Table 6-B: Capacities of MWD Connections 6-6
Table 6-C: LVMWD Imported Water Supply for 2021 to 2025 6-8
Table 6-D. Projected Groundwater Supply 6-13
Table 6-E. Supplemental Potable Water Capabilities for the Recycled Water System 6-19
Table 6-F. LVMWD Potable System Estimated Energy Intensity FY2018 6-33
Table 7-A: Historical Potable Water Supply by Source (2021–2025) 7-4
Table 7-B: MWD Normal Year Supply Capability and Projected Demands (1922-2021 Hydrology) 7-11
Table 7-C: MWD Single Dry Year Supply Capability and Projected Demands (1977 Hydrology) 7-11
Table 7-D: MWD Drought Lasting Five Consecutive Water Years Supply Capability and Projected Demands (1922-2017 Hydrology) 7-11
Table 8-A: Shortage Stages and Response Actions 8-4
Table 8-B: Penalties and Charges 8-14
Table 9-A: Quantity Rates and Tier Level 9-3



List of Figures

Figure 3-1: Las Virgenes Municipal Water District Service Areas....3-4
Figure 4-1: Schematic of LVMWD Water Uses Each System 4-1
Figure 4-2. 10-Year Historical Water Use....4-3
Figure 6-1: Schematic of LVMWD Water Supplies to Each System 6-2
Figure 6-2: LVMWD 10-Year Historical Imported Water Supplies 6-5
Figure 6-3: MWD Member Agencies' Services Areas 6-7
Figure 6-4: LVMWD Service Areas with Groundwater Basins....6-10
Figure 6-5: LVMWD 2025 Groundwater Extractions....6-11
Figure 6-6: LVMWD Historical Groundwater Extractions 6-12
Figure 6-7: 2025 Gross Influent Flows to TWRF....6-15
Figure 6-8. 2025 Gross Effluent Flows to TWRF 6-17
Figure 6-9: 2025 Recycled Water Demand Seasonal Variation 6-20
Figure 6-10: Historical Recycled Water Demands 6-20
Figure 7-1: 2025 UWMP Core Water Supplies 7-12
Figure 8-1: LVMWD Proximity to Fault Zones 8-12

List of Appendices

Appendix A Notification Letters
Appendix B Public Notification
Appendix C Adoption Resolution & Hearing Agenda
Appendix D DWR Checklist
Appendix E Water Loss Calculator
Appendix F LVMWD Hazard Mitigation Plan
Appendix G Reduced Delta Reliance Reporting

Acronyms / Abbreviations

Acronym / Abbreviation	Full Name
AB	Assembly Bill
AC	Acre
Act	Urban Water Management Planning Act
AF	Acre Feet
AFY	Acre Feet per Year
AMI	Area Median Income
AMI/AMR	Advanced metering infrastructure / Automated Meter Reading
ARDWP	Annual Reports to the Drinking Water Program
AWWA	American Water Works Association
Bay-Delta	Sacramento-San Joaquin Bay-Delta
BMP	Best Management Practices
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
cfs	Cubic Feet per Second
CII	Commercial, Institutional, and Industrial
CIMIS	California Irrigation Management Information System
CIS	Customer Interface System
CMWD	Calleguas Municipal Water District
CRA	Colorado River Aqueduct
CUWCC	California Urban Water Conservation Council
CVP	Central Valley Project
CWC or Water Code	California Water Code
CY	Calendar Year
DDW	Division of Drinking Water
Delta	San Joaquin River Delta
DMM	Demand Management Measure
DRA	Drought Risk Assessment
DU	Dwelling Unit
DWR	Department of Water Resources
EIR	Environmental Impact Report
EIS	Environmental Impact Statement

Acronym / Abbreviation	Full Name
EPM	Emergency Procedures Manual
ERP	Emergency Response Plan
ESA	Endangered Species Act
ET	Evapotranspiration
Eto	Evapotranspiration from a Standardized Grass Surface
FY	Fiscal Year
GIS	Geographic Information System
GPCD	Gallons Per Capita Per Day
gpm	Gallons Per Minute
GSA	Groundwater Sustainability Agency
HCD	Housing and Community Development
ICS	Intentionally Created Surplus
IRP	Integrated Resources Plan
IWSMP	Integrated Water System Master Plan
LV	Las Virgenes
LVMWD or District	Las Virgenes Municipal Water District
MAF	Million Acre Feet
MGD	Million Gallons per Day
mg/L	Milligrams per Liter
msl	Mean Sea-level
MWELO	Model Water Efficient Landscape Ordinance
MWD	Metropolitan Water District of Southern California
PWS	Public Water System
RHNA	Regional Housing Needs Allocation
RUWMP	Regional Urban Water Management Plan
RW	Recycled Water
SB	California Senate Bill
SCAG	Southern California Association of Governments
SGMA	Sustainable Groundwater Management Act
SMP	Salinity Management Pipeline
Supplier	Urban Water Supplier
SWP	State Water Project
SWRCB	State Water Resources Control Board
TAF	Thousand Acre Feet

Acronym / Abbreviation	Full Name
TDS	Total Dissolved Solids
TEA	Temporary Extraction Allocation
TMDL	Total Maximum Daily Load
TWRF	Tapia Water Reclamation Facility
TWSD	Triunfo Water and Sanitation District
USBR	U.S. Bureau of Reclamation
UWMP	Urban Water Management Plan
VCWWD	Ventura County Waterworks District
WFP	Westlake Filtration Plant
WQCP	Water Quality Control Plan
WSA	Water Service Area
WSAP	Water Supply Allocation Plan
WSCP	Water Shortage Contingency Plan
WSDM	Water Surplus and Drought Management

Chapter 1. Urban Water Management Plan Introduction and Lay Description

This chapter introduces the 2025 Urban Water Management Plan (UWMP) for Las Virgenes Municipal Water District (LVMWD or District) and provides an overview of the purpose, scope, and organization of the subsequent chapters in this UWMP. This chapter also includes a Lay Description of the UWMP that summarizes LVMWD's water supplies, demands, and long-term water service reliability.

1.1 Background and Purpose

This UWMP fulfills the requirements of the California Urban Water Management Planning Act (Act) and the Water Conservation Bill of 2009. An UWMP is a planning tool that guides the actions of water management agencies. It provides managers and the public with a broad perspective on several water supply issues. It is not a substitute for project-specific planning documents, nor was it intended to be, when mandated by the State Legislature. For example, the Legislature mandated that a plan include a Section which "describes the opportunities for exchanges or water transfers on a short-term or long-term basis" (California Urban Water Management Planning Act, Article 2, Section 10630(d)). The identification of such opportunities, and the inclusion of those opportunities in a general water service reliability analysis, does not commit a water management agency to pursue a particular water exchange/transfer opportunity, nor preclude a water management agency from exploring exchange/transfer opportunities not identified in the UWMP. When specific projects are chosen to be implemented, detailed project plans are developed, environmental analysis, if required, is prepared, and financial and operational plans are detailed.

The purpose of this 2025 UWMP is to provide LVMWD, its partner agencies, and the public with an updated status and long-term water resources plan, including:

- Water deliveries and uses
- Water supply sources
- Efficient water uses
- Demand management measures
- Water shortage contingency planning

This UWMP was prepared in compliance with the Water Conservation Act of 2009, also known as Senate Bill X7-7 (SB X7-7), and under the authorization of LVMWD.

Notification letters sent to agencies are provided in Appendix A.

Public notice for the 2025 UWMP public hearing is provided in Appendix B.

The agenda for the public hearing and Adoption Resolution passed by LVMWD Board of Directors on June 16, 2026, are provided in Appendix C.

A checklist to ensure compliance of this Plan with the Act requirements is provided in Appendix D.

1.2 Updated Guidance for 2025 Urban Water Management Plans

This UWMP has been prepared in compliance with California Water Code (CWC or Water Code) Sections 10610 through 10656 and Section 10608 of the Urban Water Management Plan Act (Act), which were added by Statute 1983, Chapter 1009, and became effective on January 1, 1984. This Act requires that "every urban water supplier shall prepare and adopt an urban water management plan" (Water Code § 10620(a)). An "urban water supplier" is defined as a supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually (Water Code § 10617).

UWMPs must be filed with the California Department of Water Resources (DWR) every five years. The 2025 UWMP's must be submitted to DWR by July 1, 2026. The focus of UWMPs include:

- Examining in detail current and future water use
- Analyzing potable and non-potable water supplies
- Analyzing water supply reliability
- Preparing a Drought Risk Assessment
- Developing a Water Shortage Contingency Plan
- Discuss the use and planned use of recycled water
- Reporting water loss
- Documenting compliance with Senate Bill 7, also referred to as SB X7-7

1.2.1 Changes in the Act Since 2020

Since the 2020 UWMPs were submitted, only minor changes have been made to the Water Code, primarily involving the addition or clarification of definitions. These changes do not substantively modify the statutory requirements for the 2025 UWMP. However, updated guidance and reporting expectations have been incorporated into the 2025 UWMP requirements. The following summarizes the relevant key changes and clarifications to UWMP requirements since 2020:

- **Water Code Updates**: Minor amendments to the Water Code have been adopted since 2020, largely limited to several definition additions. These amendments do not alter the fundamental UWMP requirements applicable to the 2025 UWMP.
- **Updated DWR Submittal Tables**: UWMP submittal tables have been updated to reflect the current reporting year, improve reporting accuracy, and more clearly distinguish between required information by the Water Code and optional data elements.
- **Water Loss Standard Reporting**: While no changes to the Water Code have been made to water loss reporting requirements since 2020, the 2025 UWMP now must report progress toward compliance with the 2028 Water Loss Standard, which was not finalized at the time of the 2020 UWMP.
- **Lower-Income Housing Projections**: Although projections for lower-income housing were required in 2020 UWMPs, additional optional guidance has been provided for 2025 on documenting the methodology used to develop these projections, including optional incorporation of Regional Housing Needs Allocation (RHNA) information into land use and water demand projections.

- **Groundwater Recharge and Water Storage Reporting**: Clarified guidance has been provided to distinguish between long-term and short-term water storage. Suppliers are advised not to report water placed into and withdrawn from short-term storage in the same year in order to avoid double counting.

1.3 Lay Description

LVMWD's 2025 UWMP has been prepared in compliance with the CWC as noted previously. Per CWC Section 10630.5, the UWMP must include a lay description to include the fundamental determination of the UWMP. This plan provides a detailed look at LVMWD's water system current and future water use, water sources, demand management measures, evaluation of multiple consecutive drought years, as part of the Drought Risk Assessment, and updates to the Water Shortage Contingency Plan (WSCP).

1.3.1 LVMWD's Water System, Supply, and Demand

The District has two (2) separate water systems: one for potable water to serve potable retail customers and one for recycled water to serve irrigation customers. Figure 4-1 in Chapter 4 and Figure 6-1 in Chapter 6 show schematics of water uses and supplies to each system, respectively.

Located in the Santa Monica Mountains, Conejo Valley, and San Fernando Valley, LVMWD has very limited natural water resources and currently relies on four sources: imported potable water from Metropolitan Water District (MWD), Ventura County Waterworks District (VCWWD), and the City of Los Angeles Department of Water and Power (LADWP); recycled water from the Tapia Water Reclamation Facility (TWRF); groundwater, from the Thousand Oaks Area Basin, which is only used to supplement the TWRF influent; and surface water runoff into the Las Virgenes Reservoir. See Figure 6-4 for the locations of the groundwater production wells (Westlake Well 1 and Westlake Well 2) in the Thousand Oaks Area Basin. Note that surface runoff into the reservoir generally only makes up for the evaporation losses in most years and is not classified as a reliable source of water. The imported potable water and surface water runoff stored in the Las Virgenes Reservoir is treated at the Westlake Filtration Plant (WFP).

To help meet future demands, the District recently completed several projects including an interconnection with Calleguas Municipal Water District (CMWD). This interconnection was completed in 2025 and will allow the two districts to provide water to each other as flow and pressure conditions allow. There is no guarantee of any particular flows in either direction, since the connection is only meant to be used in an emergency as long as both parties agree. See Section 3.1.2 details on more recently completed projects.

The District also has multiple projects in construction. Most notably is Pure Water Project, which will treat excess tertiary recycled water to indirect potable reuse standards and use it to augment surface water supply at the District's Las Virgenes Reservoir. See Section 3.1.3 for details on more facilities in construction and Section 3.1.4 for details on projects in design.

Over the next twenty years, the District is predicted to meet all water user demands. For more details on LVMWD's water system, supply, and demand, see Chapter 3, Chapter 4, and Chapter 6.

1.3.2 SBx7-7 2020 Target

On November 10, 2009, the California State Legislature passed Senate Bill 7 as part of the Seventh Extraordinary Session, also referred to as SB X7-7, which became effective February 3, 2010. This law was the water conservation component to the historic Bay-Delta legislative package and sought to achieve a 20% statewide reduction in urban per capita water use in California by December 31, 2020.

The law required each urban retail water supplier to develop urban water use targets to help meet the 20% goal by 2020. The suppliers are required to meet SB X7-7 goals for the foreseeable future. The law is intended to promote urban water conservation standards consistent with the California Urban Water Conservation Council's adopted best management practices.

Chapter 5 of this UWMP reports LVMWD's actual 2020 water use and confirms that the 20% water use reduction target was met in 2020. As reported in the 2020 UWMP, the District met their 2020 target of not exceeding 249 gallons per capita per day (GPCD) of water usage, with an actual 2020 usage of 227 GPCD. See Chapter 5 for more details.

1.3.3 Water Service Reliability

It is the stated goal of LVMWD to deliver a reliable and high-quality water supply to its customers, even during dry periods. Based on conservative water supply and demand assumptions over the next twenty-five years, in combination with conservation of non-essential demand during certain dry years, LVMWD is projected to achieve its goal. The basis of the water supply and demand assessment is summarized in Chapter 7.

1.3.4 Water Shortage Contingency Plan

Water Code Section 10632 requires Suppliers to prepare and adopt a Water Shortage Contingency Plan (WSCP). The 2020 WSCP drew upon lessons learned from the 2012-2016 drought, California's driest period on record. The 2020 WSCP has been updated with relevant changes since 2020, and Chapter 8 includes the full 2025 WSCP.

1.3.5 Demand Management Measures

In accordance with Chapter 9 (§10609–10609.38) of the California Water Code, LVMWD has incorporated state-mandated urban water use objectives into this UWMP. These objectives include progressive indoor residential water use standards at 47 GPCD from 2025 to 2030, and 42 GPCD thereafter, as well as requirements for reporting and evaluating impacts on water, wastewater, and recycled water systems. This UWMP outlines strategies to meet these targets while maintaining service reliability and equity and includes coordination with regional wastewater agencies to assess potential operational and financial impacts. Separately, LVMWD will continue to submit Urban Water Use Objective Reports to the Department of Water Resources (DWR) via the WUE data portal, as required.

Chapter 9 describes LVMWD's demand management measures: 1) metering, 2) public education and outreach, and 3) water conservation program coordination and staffing support. The District ensures and provides support for all efforts of water conservation through education and outreach.



1.4 Urban Water Management Plans in Relation to Other Efforts

As encouraged by DWR, suppliers are expected to prepare their UWMPs in coordination with relevant agencies and to incorporate information from related planning documents, such as General Plans and Specific Plans, that may affect the UWMP's analysis, and vice versa.

1.4.1 Specific Considerations

Other related analysis, information, and planning documents that rely on information provided in UWMPs may also be included in the UWMP to support long-term planning. Two such considerations are identified below.

1.4.1.1 Demonstration of Consistency with the Delta Plan for Participants in Covered Actions

An urban water supplier that anticipates participating in or receiving water from a proposed covered action such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Delta should provide information in their 2025 UWMPs that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (WR P1). A detailed discussion can be found in Appendix G.

1.4.1.2 Permitting for Ocean Desalination Projects

California's Water Code requires UWMPs to describe opportunities for developing desalinated water supplies. For suppliers that are pursuing ocean desalination, UWMPs must demonstrate both the need for such a project and the appropriate sizing of proposed facilities. Should an ocean desalination project move forward, permitting agencies may rely upon the information given in the UWMP to demonstrate need for the facility.

Currently, the District is State Water Project dependent, and its allocation from Metropolitan Water District was reduced by 74% during the drought in 2021-2023. In response, the District is undertaking a Water Supply Diversification Study, scheduled to be completed in early 2026, as part of the District's pursuit to diversify its water supply portfolio. Alternative water supplies currently being analyzed by the Study include ocean desalination as well as potable reuse, groundwater banking, augmentation of the Pure Water Project with urban or storm runoff, and water exchanges with other water utilities.

Since the District is still in the alternatives analysis phase of evaluating these options, no ocean desalination facilities have been proposed at this time, and this UWMP cannot yet confirm whether a project is feasible.

Chapter 2. Urban Water Management Plan Preparation

This chapter provides insight on how the 2025 UWMP was developed, including the basis for preparing the plan, units of measurement, calculations used, coordination with other agencies, and outreach efforts.

2.1 Basis for Preparing a Plan

Urban water suppliers with 3,000 or more service connections or supplying more than 3,000 acre-feet of water per year (AFY) are required to prepare an UWMP every five years in compliance with the Water Code 10617. Since LVMWD directly provides water for municipal purposes to over 3,000 customers and supplies more than 3,000 AF of water annually, LVMWD has prepared this UWMP.

LVMWD prepared and adopted UWMPs for the years 2005, 2010, 2015, and 2020. This UWMP serves as an update to the 2020 UWMP and was prepared as an individual UWMP, covering only the LVMWD service area shown in Figure 3-1. More details on the LVMWD service area are provided in Chapter 3.

To assist LVMWD staff in preparation of their 2025 UWMP, Stantec attended the 2025 UWMP Guidebook Public Review Draft Release workshop on November 17, 2025 that was facilitated by DWR.

2.1.1 Suppliers With Both Wholesale and Retail Sales

LVMWD does not provide wholesale sales, only retail sales.

2.1.2 Public Water Systems

Public water systems (PWS) are systems that provide drinking water for human consumption, and these systems are regulated by the State Water Resources Control Board (SWRCB), Division of Drinking Water (DDW). The SWRCB, Division of Drinking Water, requires reporting on the PWS. Reporters file electronic Annual Reports to the Drinking Water Program (ARDWP) to the SWRCB, which include annual reports on water usage and other information. The information provided in the UWMP is consistent with the data reported in the ARDWP.

LVMWD is a public water supplier that meets the definition of an urban water supplier with 20,667 municipal water service connections (as of the end of calendar year 2025) and a total 18,811 acre-feet (AF) of water used by customers in their water service area in calendar year 2025. See Submittal Table 2-1 for a summary of the Public Water System Data for LVMWD.

Submittal Table 2-1 Retail: Public Water Systems

Submittal Table 2-1 Retail: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
Add additional rows as needed			
CA1910255	LVMWD	20,667	20,259
	Total	20,667	20,259
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.			
NOTES:			

2.2 Individual or Regional Plans

The 2025 UWMP for LVMWD has been prepared as an individual reporting plan that only covers the service area of LVMWD and addresses all the requirements of the CWC. Coordination of this UWMP with other agencies and constituents is described in Section 2.6. LVMWD is not a member of a Regional UWMP, nor is it a member of a Regional Alliance. See Submittal Table 2-2 for Plan Identification.

Submittal Table 2-2: Plan Identification

Submittal Table 2-2: Plan Identification		
Select One	**Type of Plan**	**Name of Regional Alliance or RUWMP** (Drop Down List)
☑	**Individual UWMP**	
	If Water Supplier is also a member of a SB X7-7 Regional Alliance, select name from the drop-down.	
☐	**Regional Urban Water Management Plan (RUWMP)**	
	If Supplier selected RUWMP, select name from the drop-down.	
NOTES:		

2.3 Fiscal or Calendar Year and Units of Measure

This section delineates the year in which all data is set, as well as the units of measure to be carried through the entirety of the plan. LVMWD is a water retailer (as opposed to a water wholesaler).

2.3.1 Fiscal or Calendar Year

The 2025 UWMP for the LVMWD is prepared on a calendar year basis and includes complete water use and planning data for calendar year 2025

2.3.2 Units of Measure

Volumes reported in this UWMP are in acre-feet (AF) and are consistent throughout the plan. Submittal Table 2-3 shows the parameters under which the 2025 UWMP was prepared.

Submittal Table 2-3: Supplier Identification

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☐	Supplier is a wholesale supplier
☑	Supplier is a retail supplier
Fiscal or Calendar Year (select one)	
☑	UWMP Tables are in calendar years
☐	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
Units of measure used in UWMP (Select from the drop down list).	
Unit	AF
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	
NOTES:	

2.4 Coordination and Outreach

The UWMP Act requires that the water agency identify its coordination with appropriate nearby agencies. While preparing the 2025 UWMP, LVMWD coordinated its efforts with relevant agencies to ensure that the data and issues discussed in the UWMP are presented accurately. All agencies listed in Section 2.4.3 were sent a notice of preparation, copies of which are included in Appendix A.

LVMWD has actively encouraged community participation in its Urban Water Management Planning efforts. A notice of public hearing was published in the local newspaper [Anticipated by April 2026], notifying interested parties that the draft 2025 UWMP was under preparation. City and County agencies were notified on March 11, 2026, more than 60 days prior to the public hearing that is tentatively scheduled for June 16, 2026. Copies of the public hearing notifications are included in Appendix A.

The Draft 2025 UWMP was presented to the LVMWD Board of Directors on April 7, 2026, in a public meeting. The April meeting and public hearing on June 16, 2026 provided opportunities for LVMWD's customers, residents, and employees to learn and ask questions about the report. The Final Draft 2025 UWMP was presented and subsequently adopted by resolution of the Board on June 16, 2026. A copy of the resolution and the agenda for public hearing are included in Appendix C.

The adopted 2025 UWMP will be submitted to:

- The California Department of Water Resources
- The California State Library

In addition, the UWMP will be posted to the LVMWD website and will be made available during normal business hours at LVMWD, located at: 4232 Las Virgenes Road, Calabasas, CA 91302.

2.4.1 Wholesale and Retail Coordination

Among other coordination activities, LVMWD also informed the Metropolitan Water District of Southern California (MWD) of projected water use. See Submittal Table 2-4 for Water Supplier Information Exchange.

Submittal Table 2-4 Retail: Water Supplier Information Exchange

Submittal Table 2-4 Retail: Water Supplier Information Exchange Water Code Section 10631(h)
The retail Supplier has informed the following wholesale supplier(s) of projected water use.
Wholesale Water Supplier Name
Add additional rows as needed
Metropolitan Water District of Southern California (MWD)
Calleguas Municipal Water District (CMWD)
NOTES:

2.4.2 Coordination with Other Agencies and the Community

A written notice of this update to the LVMWD UWMP was provided to the following agencies:

- Calleguas Municipal Water District
- Triunfo Water and Sanitation District
- The Metropolitan Water District of Southern California

Table 5 summarizes the coordination and public involvement actions of each agency listed above.

2.4.3 Notice to Cities and Counties

A written notice of this update to the LVMWD UWMP was provided to the following cities and counties:

- The City of Agoura Hills
- The City of Calabasas
- The City of Hidden Hills
- The City of Malibu
- The City of Simi Valley, Waterworks District No. 8
- The City of Westlake Village
- The County of Los Angeles Regional Planning Department
- The County of Ventura Public Works Department (Ventura County Waterworks District No. 8 and 17)

Table 2-A summarizes the coordination and public involvement actions of each city and county listed above.

Table 2-A. LVMWD Coordination and Notification for Plan Preparation

Entities	Coordination and Public Involvement Actions					
	Received Copy of Draft UWMP	**Commented on Draft UWMP**	**Attended Public Meetings**	**Contacted for Assistance**	**Was Sent Notice of Intent to Adopt**	**Not Involved**
Metropolitan Water District of Southern California						
Calleguas Municipal Water District						
City of Calabasas						
City of Hidden Hills						
City of Agoura Hills						
City of Westlake Village						
City of Malibu						

Entities	Coordination and Public Involvement Actions					
	Received Copy of Draft UWMP	Commented on Draft UWMP	Attended Public Meetings	Contacted for Assistance	Was Sent Notice of Intent to Adopt	Not Involved
City of Simi Valley, Waterworks District No. 8						
Triunfo Water and Sanitation District						
Los Angeles County						
Ventura County Waterworks District No. 8 and 17						

Chapter 3. Service Area Description

3.1 General Description

The LVMWD service area comprises a 122-square mile area (74,640 acres) in western Los Angeles County, including the Los Angeles/Ventura County boundary to the northwest and the City of Los Angeles to the east. As shown in Figure 3-1, the service area includes the incorporated cities of Agoura Hills, Calabasas, Hidden Hills, and Westlake Village as well as unincorporated portions of Los Angeles County.

3.1.1 Water System Description

LVMWD's potable water system is mainly supplied by imported water from MWD, VCWWD No. 17, VCWWD No. 8, as well as from the LADWP. LVMWD also recently completed an interconnection with CMWD which establishes a voluntary water sharing agreement. Surface water runoff is collected in the Las Virgenes Reservoir, but the amount of water generally only makes up for the evaporation losses in most years. The water stored in the reservoir is treated at the Westlake Filtration Plant (WFP) to meet Title 22 California Code of Regulations, Division 4, Chapter 17 surface water treatment requirements for drinking water.

The potable water distribution system includes 25 storage tanks, 24 pump stations, and nearly 400 miles of pipelines. Due to the mountainous topography of its service area, the system has 22 main pressure zones. For billing purposes, the pressure zones are categorized into five pumping zone levels based on hydraulic grade line (HGL). The potable water use sectors, as identified in California Water Code Section 10631(d), are single and multi-family residential, commercial, and potable landscape irrigation users.

The District also supplies non-potable water to landscape and irrigation customers. The Tapia Water Reclamation Facility (TWRF) treats wastewater from LVMWD and Triunfo Water and Sanitation District (TWSD) service areas, supplemented by non-potable groundwater pulled from the Thousand Oaks Area Basin. See Figure 6-4 for the locations of the groundwater production wells (Westlake Well 1 and Westlake Well 2) in the Thousand Oaks Area Basin. LVMWD's recycled water distribution system consists of 70 miles of pipelines, 3 storage tanks, 3 open reservoirs, and 3 pump stations. The LVMWD recycled water customers are landscape and gold course irrigation users.

For more details on LVMWD's potable and non-potable water system supply and demands, see Chapters 4 and 6, respectively.

3.1.2 Recently Completed Projects

Las Virgenes Municipal Water District is consistently working on new projects that will enhance the reliability of the potable and recycle water systems for their customers. Most notably, LVMWD constructed an interconnection with CMWD. This interconnection was completed in 2025 and includes a joint facility consisting of a pump station and pressure reducing station. LVMWD operates the pressure reducing side of the facility to reduce CMWD's water to a pressure acceptable for the LVMWD system. This interconnection is meant to be used in an emergency as long as both parties agree.

Other projects that the District has completed include:

- Calabasas Recycled Water Pipeline Replacement
- LV2 Variable Frequency Drive Replacement
- Centrate Tank Rehabilitation
- Jed Smith Tank Rehabilitation
- Calabasas Tank Rehabilitation
- Aluminum Sulfate Storage Tank Replacement
- Rancho Air Lock Retrofit
- Malibu Lake Siphon Replacement Project
- Advanced Metering Infrastructure (November 2022)

3.1.3 Facilities in Construction

In addition to recently completed projects, the District has multiple projects in construction. Most notably is the Pure Water Project – Triunfo / Advanced Water Purification Facility (AWPF). The Pure Water Project will treat excess tertiary recycled water from the TWRF to indirect potable reuse standards through advanced filtration methods and use it to augment surface water supply at the District's Las Virgenes Reservoir. It is anticipated that the Pure Water Project will be constructed and operational by 2030.[1] See Section 6.1 for more details on the Pure Water Project.

Other facilities in construction at the time of this UWMP include:

- Cornell Pump Station Rehabilitation
- Secondary Clarifiers Rehabilitation
- Pure Water Project Las Virgenes
- McCoy Tank Rehabilitation
- Twin Lakes Pumping Upgrades
- Tapia TMDL Compliance

3.1.4 Projects in Design

To ensure the District continues to provide reliable, quality water to its customers, LVMWD has several projects planned for future developments, including the projects in design listed below:

- Twin Lakes Pipeline
- SCADA Systems Communications Upgrades
- Equestrian Tank Rehabilitation
- Stunt Road Pump Station and Saddle Peak Tank Pipeline Improvements
- Tapia Flow Equalization
- Old Chimney Pressure Reducing Station Improvements
- Lift Station 1 Rehabilitation
- Outfall 003 Discharge Point Rehabilitation
- Rancho New Flare and Boiler Replacement

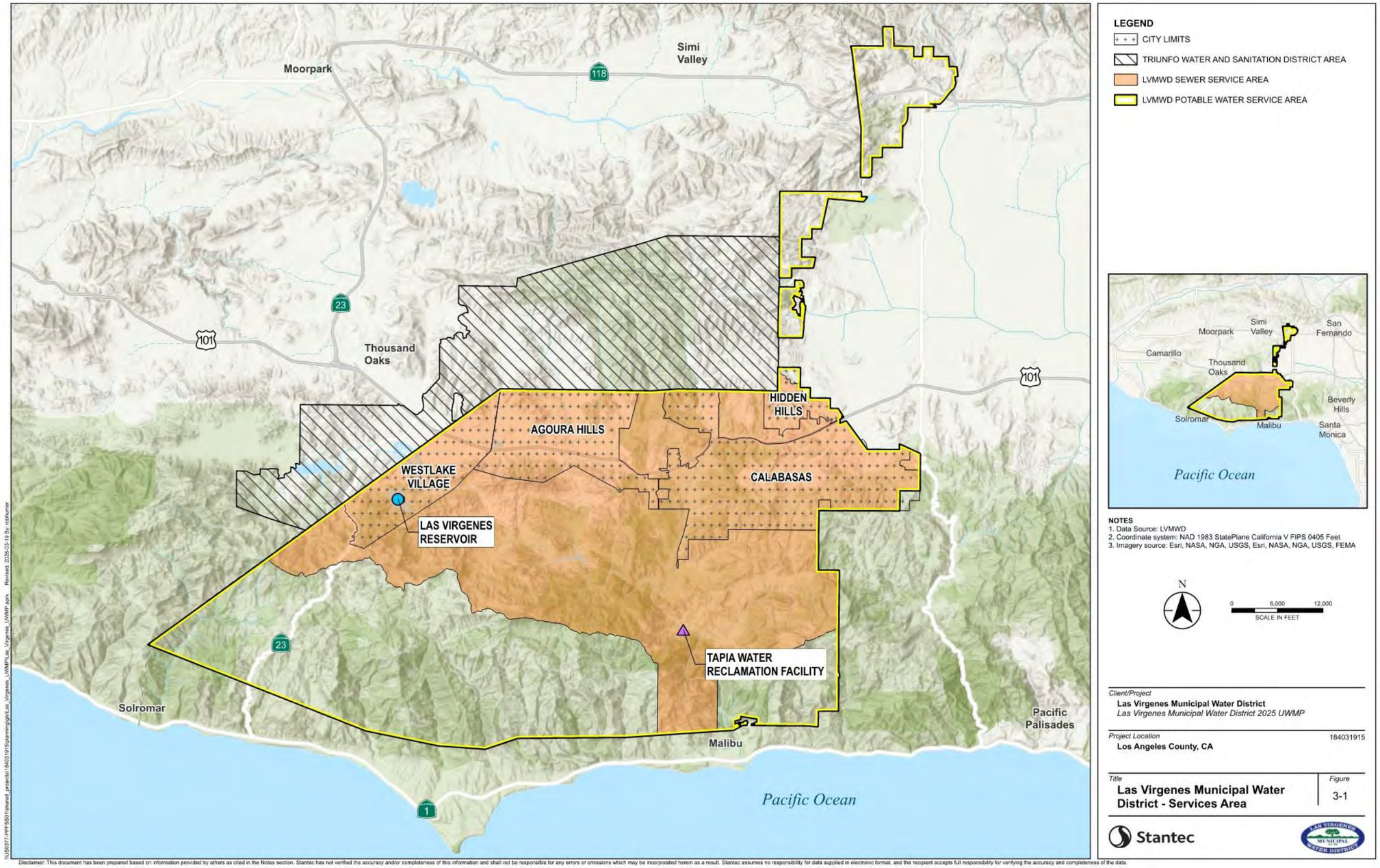
[1] Pure Water Project FAQs - Las Virgenes-Triunfo Joint Powers Authority https://www.ourpureh2o.com/faqs

- Lindero & Agoura Main Relocation
- Tapia Sulzer Blower Check Valve Replacement
- Twin Lakes #2, Dardenne, and Oakridge Tank Rehabilitation
- Tapia Effluent Pump Station / Recycled Water Pump Station West Rehabilitation

3.2 Service Area Boundary Maps

LVMWD's District boundary is shown in Figure 3-1.

Figure 3-1: Las Virgenes Municipal Water District Service Areas



3.3 Service Area Climate

The majority of LVMWD's service area climate is a semi-arid environment with mild winters, warm summers and moderate rainfall, consistent with coastal Southern California. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or dry hot Santa Ana winds. The standard monthly average evapotranspiration (ETo) rates, rainfall, and temperature are summarized in Table 3-A.

From 2015 to 2025, LVMWD's average monthly temperature ranges from about 49 to 87 degrees Fahrenheit (°F), with an annual average temperature of 75°F. ETo averages a total of 56 inches per year, while the average annual rainfall is 16.1 inches. Records for the ten-year timeframe show that the monthly precipitation averages 3.5 inches in wet months (December through March) and near zero inches in dry months (June through October).

Table 3-A. LVMWD Average Seasonal Climate Characteristics

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
Avg. Max Temp. (°F)	66.07	67.07	68.10	72.04	71.66	79.67	85.10	86.42	84.29	80.14	72.87	66.24	75.0 (avg)
Avg. Min. Temp. (°F)	49.17	48.60	49.25	51.42	53.00	57.98	61.51	62.46	61.19	58.11	52.66	48.86	54.5 (avg)
Total Monthly Precipitation (in)	3.50	3.45	3.47	0.59	0.38	0.02	0.04	0.40	0.23	0.20	0.76	3.09	16.1 (total)
Monthly ETo (in)	2.78	3.22	4.27	5.30	5.25	5.97	6.98	6.68	5.15	4.46	3.38	2.58	56.0 (total)

Sources:
LVMWD, based on average data from two CIMIS stations: Santa Monica – Los Angeles Basin (Station 99), and Chatsworth – Los Angeles Basin (Station 215). https://cimis.water.ca.gov/Default.aspx

3.4 Service Area Population and Demographics

3.4.1 Service Area Population

3.4.1.1 Development Projections

The development projections for this 2025 UWMP have been updated using the most recent Housing Element reports available from local jurisdictions. These reports, dated between 2021 and 2022, cover the planning period from 2021 to 2029 and were used to estimate future population growth for the cities of Agoura Hills, Calabasas, Hidden Hills, and Westlake Village. Notably, Hidden Hills provided a more recent update in 2025, which was incorporated into this analysis.

To estimate population growth within the broader LVMWD service area, including unincorporated areas of Los Angeles County, no new housing data was available specific to the District. Therefore, projections for these areas were derived from the 2014 Potable Water Master Plan, which remains the most comprehensive source of land use and development data for the unincorporated regions. This blended approach reflects both current housing policy and historical planning assumptions, providing a basis for water demand forecasting through the 2040 build-out horizon.

In the 2020 UWMP, a total of 5,485 new dwelling units were anticipated by build-out (in 2040), which resulted in an estimated additional population of 16,667 persons. An estimate of 7,202 new dwelling units is anticipated at build-out (in 2045), resulting in an increase in population of 20,743 persons. This aligns with the significant evolution of housing policy between 2020 and 2025, which incentivizes accelerated housing development. These projections are summarized in Table 3-B.

Table 3-B. Housing and Population Projections from 2025 to 2045

Agency/Growth Description	Projected New Dwelling Units	Persons Per Household (PPH)	Projected Additional Population
Agoura Hills	(a)	(b)	
Vacant Single-family Sites	102	2.77	283
Accessory Dwelling Units (ADUs) (j)	80	1.5	120
Agoura Village Specific Plan Sites	660	2.77	1,828
Mixed Use Shopping Center Sites	188	2.77	521
RM15 Rezone Sites	523	2.77	1,449
Ladyface Mountain Specific Plan Sites	30	2.77	83
Calabasas	(c)	(d)	
Vacant Single-family Sites	44	2.71	119
Multi-family & Mixed-Use Opportunity	1019	2.71	2,761
Accessory Dwelling Units (ADUs) (j)	96	1.5	144
Hidden Hills	(e)	(f)	
Vacant Lots	17	3.43	58
Affordable Housing Overlay	26	3.43	89
Accessory Dwelling Units (ADUs) (j)	22	1.5	33
Westlake Village	(g)	(h)	
Vacant Single-family Sites	102	2.48	253
Residential Sites	4	2.48	10
Mixed-Use Sites	607	2.48	1,505
Additional Units	(i)	(i)	
From Land Use Calculations	2746	3.15	8,650
From Vacant units	936	3.03	2,836
Total	**7,202**		**20,743**
Estimated population at baseline (2025)			**77,562**
Total Population at Buildout (2045)			**98,305**
Sources:			
Agoura Hills 2021-2029 Housing Element (a) is from Table IV-1 (p.89) and (b) is from Table II-6 (p. 32)			
Calabasas Revised 2021-2029 Housing Element (c) Table V-4 p.30 (d) Table 6 p. 223			
Hidden Hills 2021-2029 Housing Element (e) Table III-1 (p26) and (f) Table II-3 [total pop 1,868/544 households]			
Westlake Village 2021-2029 Housing Element (g) Table 11 (p. 33) (h) Table 1 p. 11			
(i) 2014 Las Virgenes Potable Master Plan Table 2-2 (p39)			
(j) SCAG Regional Accessory Dwelling Unit Affordability Analysis for Round 6 Housing Elements (p. 8); https://ahsc.scag.ca.gov/sites/default/files/2024-05/adu_affordability_analysis_120120v2.pdf			

3.4.1.2 Service Area Population

Based on 2025 population data and additional population from full buildout, which is assumed to occur in 2045, future population was calculated for all intervening years through the end of the planning period. See Submittal Table 3-1 for the current and projected population. As can be seen, it is anticipated that LVMWD's service area population will increase to approximately 98,305 by 2045.

Submittal Table 3-1 Retail: Population – Current and Projected

Submittal Table 3-1 Retail: Population - Current and Projected **Water Code Section 10631(a)**					
Population Served	**2025**	**2030**	**2035**	**2040**	**2045**
	77,562	82,296	87,320	92,650	98,305
NOTES: Population per LVMWD and local agencies housing elements					

3.4.2 Other Social, Economic, and Demographic Factors

Most of LVMWD's service population includes the incorporated cities of Agoura Hills, Calabasas, Hidden Hills, and Westlake Village as well as unincorporated portions of Los Angeles County. Current and future demographics, housing development, and land use in the cities will have significant impact on water use and system planning for LVMWD.

Though LWMWD has no disadvantaged census group, it is a common destination for disadvantaged community members who come to enjoy the visitor facilities. Safe, clean water is necessary to support these recreational experiences. LVMWD is committed to support programs that ensure resources are available to serve the region's disadvantaged communities.

3.5 Land Uses within Service Area

A large portion of the service area is undeveloped land characterized by the Santa Monica Mountains that range in elevation from a few feet above mean sea level (msl) to elevations exceeding 2,500 ft-msl. These open space areas comprise about 35 to 40 percent of the total service area and are mostly held in public ownership, such as state and national parks that will not require water service. Because of this, there is a limited amount of development planned for the future despite the significant amount of open land available.

There are also many undeveloped private parcels, particularly in the southern half of the service area. While these parcels are difficult to develop due to the topography of the land, they are accounted for in long-range water planning as these parcels could potentially receive water from LVMWD in the future[2]. The remaining portion is primarily made up of mixed residential and commercial land uses, while only a small portion of the service area is designated as agricultural land use types. The development pattern in recent years within the service area has included redevelopment of commercial/office uses into mixed-use and multifamily residential along the freeway corridor with some modest residential development and

[2] Potable Water Master Plan Update 2014, Kennedy Jenks

growth. LVMWD's water demands are primarily residential, as opposed to commercial, industrial, institutional, or agricultural, so LVMWD's customer base consists of many small users (i.e., single family residential homes) with associated landscape irrigation.

3.5.1 Service Area Geography

There are several unique aspects of LVMWD's geography which must be considered when discussing regional water infrastructure. Secondly, because of LVMWD's rural location within the Santa Monica Mountains, the distribution systems are large and must accommodate geographical challenges such as rapidly changing elevations. And while LVMWD benefits from a highly integrated recycled water system, effective potable distribution has been an ongoing challenge.

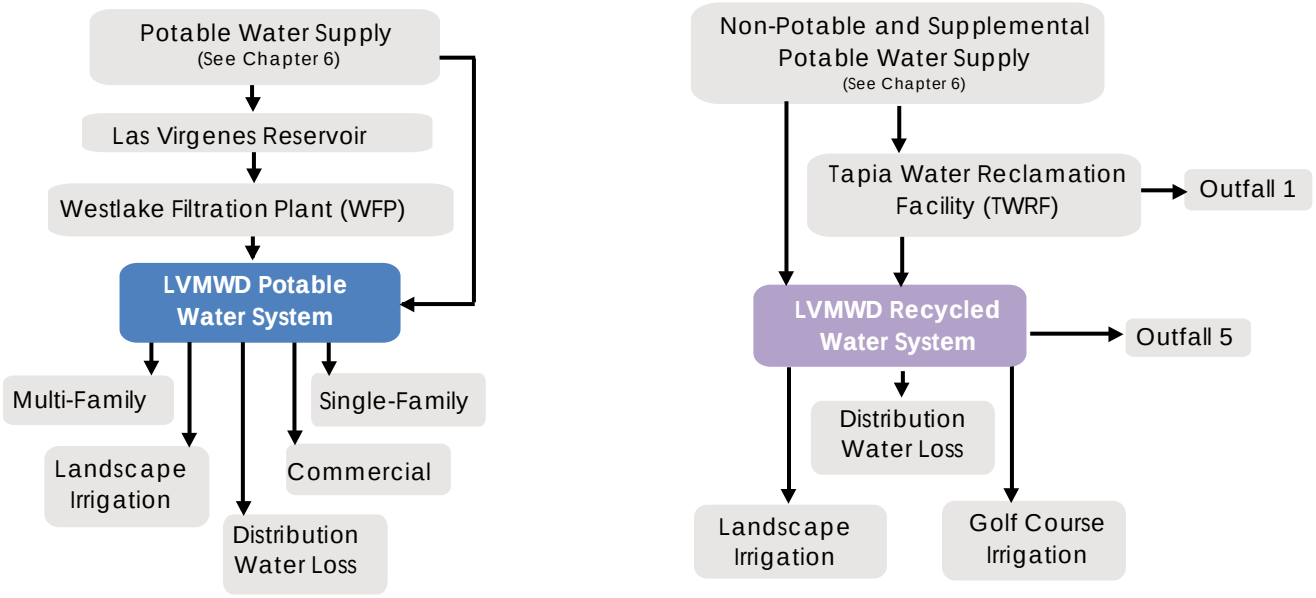
Chapter 4. Water Use Characterization

This chapter describes and quantifies LVMWD's past, current, and future potable and non-potable water use projections through at least the year 2050, which are summarized in Table 4-3. Available records are used to project future water use based upon LVMWD's historical records and considering anticipated growth, new regulations, changing climate conditions, and trends in customer water use behaviors. Examining each water use sector and then aggregating the information into a comprehensive projection of customer water use, becomes the foundation for integration with LVMWD's water supplies (Chapter 6) to assess long-term water system reliability (Chapter 7).

4.1 Non-Potable Versus Potable Water Use

As described in Chapter 3, the District has two (2) separate water systems: one for potable water to serve potable retail customers and one for recycled water to serve non-potable irrigation customers. See Figure 4-1 for a schematic of water uses for each system.

Figure 4-1: Schematic of LVMWD Water Uses Each System



As discussed in Section 1.3.1, the potable water distribution system consists of 25 storage tanks, 24 pump stations, and nearly 400 miles of pipelines. The District's potable water is mainly used for all indoor residential and commercial demands and for outdoor irrigation in areas not served by the recycled water network. Based on customer consumer data, the potable system serves a total of 20,009 connections, consisting of 18,622 single-family, 825 commercial, 555 multi-family and 7 landscape irrigation accounts.

LVMWD's recycled water distribution system includes 70 miles of pipelines, 3 storage tanks, 3 open reservoirs, and 3 pump stations. Tertiary-treated recycled water is supplied from the Tapia Water

Reclamation Facility (TWRF), supplemented as necessary by non-potable groundwater from the Thousand Oaks Area Basin and potable imported water. When recycled water production exceeds system demand, excess tertiary-treated water is discharged through Outfall 001 or Outfall 005 in accordance with regulatory requirements (see Section 6.2.4.2).

The recycled water system serves 658 customers. These customers use recycled water for irrigating parks, roadway medians, schools, and golf course irrigation.

As presented in Submittal Table 2-1, LVMWD serves a total of 20,667 municipal water service connections.

4.2 Past, Current, and Projected Water Use by Sector

This section discusses past, current, and projected water use in five-year increments through 2050. The water uses shall be identified by sector and based upon information provided by LVMWD.

4.2.1 Water Use Sectors Listed in Water Code

To characterize LVMWD's water use customers, the following sections define the water sectors listed in the CWC 10631(d). The order of the sectors follows the order found in the Water Code. If a sector is not applicable or no information is available, it will be indicated as such in the respective sector and shall be excluded from the analysis. Additional sectors or subdivisions of these sectors shall be included in Section 4.2.2 to allow the analysis of unique conditions that may apply to certain sectors or subsectors not listed in the Water Code.

4.2.1.1 Single-Family Residential

A single-family dwelling unit. A lot with a free-standing building containing one dwelling unit that may include a detached secondary dwelling.

4.2.1.2 Multi-Family Residential

Multiple dwelling units contained within one building or several buildings within one complex.

4.2.1.3 Commercial

A water user that provides or distributes a product or service. Water Code 10608.12(d).

4.2.1.4 Landscape

Water connections supplying water solely for landscape irrigation. Such landscapes may be associated with multi-family, commercial, industrial, or institutional/governmental sites, but are considered a separate water use sector if the connection is solely for landscape irrigation.

4.2.1.5 Distribution System Losses

Reporting of distribution system losses is required by the Water Code. Per CWC §10631(d)(3), distribution system water losses for each of the five years preceding the plan update must be reported in accordance with the rules adopted pursuant to CWC §10608.34. These water losses are listed in Submittal Table 4-4 and all relevant AWWA reporting worksheets can be found in Appendix E.

Projected water losses, reported in five-year increments for 20 years, are included to effectively evaluate water service reliability. It is one of the water use sectors that requires reporting per Water Code Section 10631(d)(1). Projected water losses are summarized in Section 4.3.

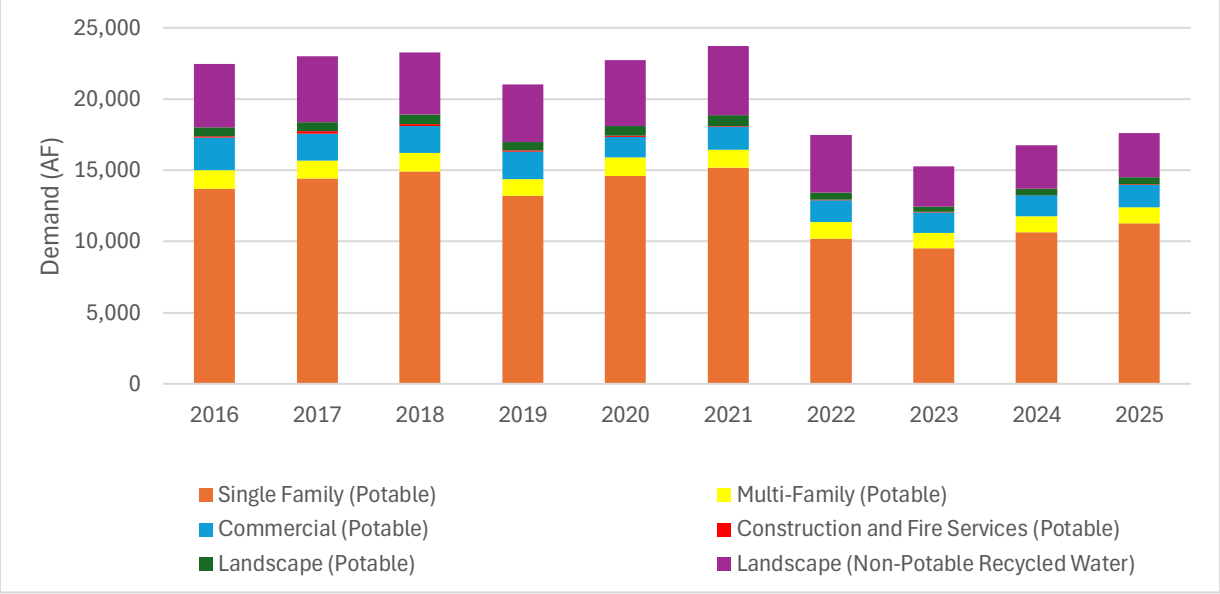
4.2.2 Optional Water-Use Sectors in Addition to Those Listed in Water Code

This section describes water demands that are not adequately represented by the water sectors listed in the CWC 10631(d), such as unbilled, authorized consumption like construction and fire services. Construction services include water uses such as dust suppression, washing equipment, and other uses associated with construction activities. Water used for fire services include line flushing, firefighting, hydrant testing, and others.

4.2.3 Past Water Use

Figure 4-2 below quantifies past water use for the LVMWD service area. Past water use accounting helps show LVMWD's water use trends; the effects of temporary use restrictions, and recovery from such temporary restrictions; effects of long-term demand management measures; and other pertinent water use patterns.

Figure 4-2. 10-Year Historical Water Use



NOTE: Does not include losses or outfall discharges. See Figure 6-10 for Landscape (non-potable recycled water) use volumes.

4.2.4 Current Water Use

Existing water use by customer sector is shown in Submittal Table 4-1. Residential (single-family plus multi-family) connections accounted for approximately 79 percent of total potable water service demands in 2025.

Submittal Table 4-1 Retail: 2025 Actual Total Uses for Potable and Non- Potable Water

Submittal Table 4-1 Retail: Total Uses for Potable and Non-Potable Water — Actual Water Code Section 10631(d)(1)			
Use Type	Additional Description (as needed)	2025 Actual Water Use	
Drop down list May select each use multiple times These are the only use types that will be recognized by the WUEdata online submittal tool		**Potable or Non-Potable** (OPTIONAL) Drop down list	Volume (AF)
Add additional rows as needed			
Single Family		Potable	11,266
Multi-Family		Potable	1,147
Commercial		Potable	1,554
Landscape		Potable	489
Distribution System Water Loss		Potable	1,225
Landscape		Non-Potable	3,096
Other (optional)	Construction and Fire Services	Potable	34
		Subtotal Potable	15,714
		Subtotal Non-Potable	3,096
		Total	18,811
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.			
NOTES:			

4.2.5 Projected Water Use

In accordance with Water Code Section 10635(a), below (and in Chapter 7) includes an assessment of the reliability of LVMWD's water service to its customers during normal, dry, and multiple dry water years.

This water supply and demand assessment compares the total water supply sources available to LVMWD with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. See Chapter 7 for further details.

4.2.5.1 General Guidance on Projections

For the water service reliability assessment, suppliers shall characterize the normal water use for estimating normal water supply reliability and reliability in the event of a single dry year. Suppliers may choose to characterize the normal year water use in whatever manner makes the best planning sense. Both normal year and single dry year data is reported in Chapter 7.

A critical component of statutory language in Water Code Section 10635(b) is the requirement to prepare a five-year drought risk assessment (DRA), discussed in Chapter 7. This five-year DRA can also be used to provide the water service reliability assessment for a drought lasting five years.

DWR recommends that, as a first step, suppliers estimate expected gross water use for the next five years without drought conditions (also known as unconstrained demand). These numbers can then be adjusted to estimate the five-years' cumulative drought effects, as summarized in Chapter 7.

LVMWD's projected water use, in five-year increments, is shown below through 2050 (including projections for each of the water use sectors identified in Section 4.2.1).

4.2.5.2 Water-Use Projections by Sector

Retail Suppliers are required to report projected water uses by the sectors described in Section 4.2.1 of this UWMP. In accordance with Water Code Section 10635(a), Submittal Table 4-2 shows the projected water use by sector, in five-year increments through 2045.

Residential (Single-Family and Multi-Family)

Using the Housing and Population Projections in Chapter 3, LVMWD projects full buildout in 2045. Population growth naturally increases potable water use demands. However, per capita residential potable demand is anticipated to decline over the 2025–2045 planning horizon primarily due to two state requirements:

1. Indoor Residential Water Use Standard established by SB 1157 (2022), which lowers the indoor standard from 47 gpcd (2025–2029) to 42 gpcd beginning January 1, 2030; LVMWD is currently meeting the 47 gpcd standard based on the average indoor water use data and percentage estimated by LVMWD.

2. Outdoor efficiency requirements adopted under the "Making Conservation a California Way of Life" regulation (Title 23, CCR §§965–969), which require suppliers to apply state defined outdoor efficiency factors (implemented via the adopted framework for outdoor standards and CII landscapes with dedicated irrigation meters).

LVMWD data indicates that on average in 2025, approximately 30% of residential use is indoor and 70% is outdoor.

With anticipated indoor water use reductions and outdoor efficiency requirements, it is anticipated that overall residential water use will slightly decrease even as population grows. Below find the resulting per capita residential reductions and outdoor efficiency reductions used in the water use projections:

- Beginning 2030 (Indoor standard change): Reducing indoor use from 47 to 42 gpcd is a 10.6% indoor reduction. Applying the 30% indoor share, the per capita residential demand decreases by ~3.2% in 2030 (0.30 × 10.6% = 3.2%).

- Beginning 2035 (Outdoor efficiency tightening): Based on LVMWD's planning assumption that the effective Landscape Efficiency Factor (LEF) for residential outdoor use declines 21% (from 0.80 to 0.63) in 2035, the per capita residential demand decreases by ~14.9% in 2035 due to outdoor use alone (0.70 × 21.0% ≈ 14.9%). (Incremental to 2025 baseline; see cumulative note below.)

- Beginning 2040 (Additional outdoor tightening): Under LVMWD's planning assumption that the residential outdoor LEF decreases an additional ~12.7% (from 0.63 to 0.55) in 2040, the per capita residential demand decreases by ~8.9% in 2040 due to outdoor use alone (0.70 × 12.7% ≈ 8.9%).

Applying the reductions, the combined indoor and outdoor changes yield an overall ~25% reduction in per capita residential potable demand by 2040 relative to the 2025 baseline (≈3.2% in 2030; then ≈14.9% at 2035; then ≈8.9% at 2040). These cutbacks are incorporated into the projected use for Single-Family and Multi-Family in Submittal Table 4-2.

Commercial

LVMWD's projected commercial water use will increase at the same rate as population growth throughout the planning period. There are no modelled cutbacks or water savings.

Landscape (potable)

LVMWD's projected potable landscape water use may increase as a function of population growth, however ongoing water efficient program efforts and the tightening of outdoor standards in 2035 and 2040 will result in water savings.

- 2035 (efficiency tightening): LVMWD's planning assumption is that the effective Landscape Efficiency Factor (LEF) for landscaping use declines 21% (from 0.80 to 0.63) in 2035.

- 2040 (additional tightening): LVMWD's planning assumption is that the landscaping LEF decreases an additional ~28.6% (from 0.63 to 0.45) in 2040 and beyond.

These cutbacks are incorporated into the projected use for Landscape (potable) in Submittal Table 4-2.

Distribution System Water Loss

LVMWD'S projected distribution system losses will remain stable in the context of population growth due to several water loss reduction efforts. The District is implementing a comprehensive pipeline replacement program focused on identifying and prioritizing potable water mains for rehabilitation or replacement based on condition, age, and risk of failure. In addition, LVMWD is initiating a proactive field-based leak detection program beginning in 2026. This effort will supplement existing monitoring and audit practices by systematically surveying the distribution system to identify and repair leaks that may not be immediately apparent through customer reports or system operations data. These programs are further discussed in Section 9.1.3.5.



Together, these initiatives are expected to contribute to ongoing reductions in per capita real water loss and improvements in overall distribution system efficiency.

Non-potable Landscape

LVMWD's projected recycled water use is expected to remain constant at 3,465 AF due to current customer demand trends and a major pipeline replacement project which will address leaks.

Other: Construction and Fire Services

LVMWD's projected Construction and Fire Services water use is based on a multi-year historical average and is assumed to remain constant throughout the planning horizon. This approach reflects the episodic and variable nature of construction activity and emergency response demands, which are not directly correlated with population growth or customer water use trends. Using a long-term average provides a conservative and stable estimate for system planning purposes and avoids understating operational demands associated with temporary construction activities, firefighting, and other unbilled authorized uses.

Submittal Table 4-2 Retail: Total Use for Potable and Non-Potable Water – Projected

Submittal Table 4-2 Retail: Total Uses for Potable, and Non-Potable Water — Projected **Water Code Section 10631(d)(1)**							
Use Type	Additional Description (as needed)	**Projected Water Use** (Report To the Extent that Records are Available)					
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		**Potable or Non-Potable** (OPTIONAL) Drop down list	**2030 (AF)**	**2035 (AF)**	**2040 (AF)**	**2045 (AF)**	**2050 opt (AF)**
Add additional rows as needed.							
Single Family	(a)	Potable	11,524	10,398	10,112	10,708	
Multi-Family	(a)	Potable	1,173	1,058	1,029	1,090	
Commercial	(e)	Potable	1,646	1,743	1,845	1,954	
Landscape	(a)	Potable	518	432	507	615	
Distribution System Water Loss	(b)	Potable	1,297	1,297	1,297	1,297	
Landscape	(c)	Non-Potable	3,465	3,465	3,465	3,465	
Other (optional)	Construction and Fire Services (d)	Potable	68	68	68	68	
		Subtotal Potable	16,225	14,996	14,859	15,731	0
		Subtotal Non-Potable	3,465	3,465	3,465	3,465	0
		Total	19,690	18,461	18,324	19,196	0
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.							

NOTES:
(a) Assumes demand projections based on actual 2025 water use per Submittal Table 4 1 and population projections per Submittal Table 3 1. Projected cutbacks are described in Section 4.2.5.2 Water Use Projections by Sector.
(b) The 2030 Losses are estimated using 2025 data per Submittal Table 4 1 and assumed to remain constant through 2050 due to planned pipeline replacement program and ground leak detection program to be implemented in 2026.
(c) Average recycled water demand from 2016-2025 with a 20 percent reduction, based on recent trends over the last five years, was assumed to remain constant for 2030 through 2050.
(d) Average construction and fire services demand from 2016-2025 was assumed to remain constant for 2030 through 2050.
(e) Assumes demand projections based on actual 2025 water use per Submittal Table 4 1 and population projections per Submittal Table 3 1.

4.2.5.3 Standards, Codes, Ordinances, and Plans

The water use projections described above take into consideration LVMWD land use plans (see Chapter 3). LVMWD has a land-use buildout set for 2045.

4.2.5.4 Retail Only

Future water projections reported in Submittal Table 4-2 include, where available, estimated future water savings expected to occur pursuant to Water Code Section 10631(d)(4)(A). As shown in Submittal Table 4-3, future water savings are included in projections. For the purposes of the 2025 UWMP and data available at the time of preparation, the projected potable water and recycled water demands are described in Section 6.2.4 and Submittal Table 4-2.

Submittal Table 4-3 Retail: Inclusion in Water Use Projections

Submittal Table 4-3 Retail: Inclusion in Water Use Projections **Water Code Section 10631(a), 10631(d)(4)(A), and 10631(d)(4)(B)**	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) **Drop down list (y/n)**	Yes
If "Yes" to above: State the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found. **OPTIONAL** Suppliers may complete Optional Submittal Table 4-4 R to quantify the expected savings.	See Section 4.2.5.2
Are Lower Income Residential Demands Included In Projections? (Refer to Appendix K of UWMP Guidebook) **Drop down list (y/n)**	Yes
OPTIONAL If the method for accounting Lower Income Residential Demands has been included, provide page number where this accounting can be found. (An example is included in Appendix K.)	N/A
NOTES: Lower Income Residential Demands are incorporated in demand projection with the same level of water use as higher income residential. No separate accounting method is used for Lower-Income Residential Demands.	

4.2.5.5 Lower-Income Households

The projected water use for lower income households is shown below. A lower income household has an income below 80 percent of area median income, adjusted for family size.

The State Department of Housing and Community Development (HCD) categorizes households into five income groups based on the County Area Median Income (AMI) which can be used for planning and funding purposes. The five income groups include:

- Extremely Low-Income – up to 30% of AMI
- Very Low-Income – 31 to 50% of AMI
- Low-Income – 51 to 80% of AMI

- Moderate Income – 81 to 120% of AMI
- Above Moderate Income – greater than 120% of AMI

As required by State Housing Element law, jurisdictions shall provide sufficient land to accommodate a variety of housing opportunities for all economic segments of the community. The region's projected housing needs shall be accommodated for the planning period, known as the Regional Housing Needs Allocation (RHNA). To comply, jurisdictions shall provide adequate land with enough density and appropriate development standards. The Southern California Association of Governments (SCAG) allocates the RHNA to individual jurisdictions within the region.

The LVMWD service area includes the incorporated cities of Agoura Hills, Calabasas, Hidden Hills, and Westlake Village as well as approximately 5 percent of unincorporated areas within the County of Los Angeles. As such, RHNA data assigned by SCAG to these cities and unincorporated areas shall be used for this UWMP. RHNA units of the respective cities and areas for the 2025 to 2045 forecast, based on income distribution, are summarized in Table 4-A.

Table 4-A. 2025-2045 RHNA Assigned Units of Cities within LVMWD

Income Group	Number of Units[1]						Percentage
	Agoura Hills	Calabasas	Hidden Hills	Westlake Village	Unincorporated LA County[2]	Total	
Extremely/ Very Low	127	132	17	58	1,279	1,612	30%
Low	72	71	8	29	683	863	16%
Moderate	55	70	9	32	708	874	16%
Above Moderate	64	81	6	23	1,822	1,996	37%
Total	318	354	40	142	4,492	5,346	100%

[1] From document "SCAG 6th Cycle Final RHNA Allocation Plan"
[2.] Approximately 5 percent of unincorporated areas within Los Angeles County (LA County)

Extremely low-, very low-, and low-income households are often combined and referred to as lower-income households. This is accounted for in the prorated population estimates of Table 3-B in Chapter 3. In accordance with Water Code Section 10631.1, Submittal Table 4-3 confirms and indicates how future water savings estimates and lower-income household demands are included in water use projections.

4.2.5.6 Climate Change Considerations

Climate change presents a challenge in water planning for water suppliers around the globe. For LVMWD, long-term supply is projected to meet demands even with climate change considerations incorporated. In 2025, firefighting efforts for the Palisades Fire required approximately 18.51 AF of water. Water use is anticipated to increase as a result of temporary emergency firefighting demands. Climate change considerations are shown in supply projections by means of available imported water predicted through MWD. Climate changes are expected to impact groundwater and other supply sources, but they are difficult to quantify and are accounted for in the conservative reporting of this UWMP.

MWD's water supply planning has almost one-hundred years of hydrological data regarding weather and water supply. This history has provided a foundation for forecasting frequency and severity of future droughts, as well as the frequency and abundance of above-normal rainfall. However, weather patterns can shift dramatically and unpredictably, significantly affecting water supply planning.

Although there are uncertainties of the exact timing, magnitude, and regional impacts of temperature and precipitation changes, researchers have identified several areas of concern for California water planners including:

- Reduction in Sierra Nevada snowpack
- Increasing intensity and frequency of extreme weather events
- Increased frequency and duration of extreme heat, impacting health and evapotranspiration
- Rising sea levels resulting in the following:
    - Impacts to coastal groundwater basins due to seawater intrusion
    - Increased risk of damage from storms, high-tide events, and the erosion of levees
    - Potential pumping cutbacks on the State Water Project (SWP) and Central Valley Project (CVP)

Other areas of concern due to climate change include:

- Effects on local supplies such as groundwater
- Changes in urban and agricultural demand levels and patterns
- Impacts to human health from water-borne pathogens and water quality degradation
- Declines in ecosystem health and function
- Alterations to power generation and pumping regimes

4.3 Distribution System Water Losses

Distribution system water losses are the physical potable water lost from the pressurized water distribution system and facilities up to the point of delivery to the customer. Water losses are calculated using the American Water Works Association Method (Title 23 California Code of Regulations [CCR] Section 638.1 et seq.).

4.3.1 Previous Five Years Distribution System Losses

Per CWC §10631(d)(3), distribution system water losses for each of the five years preceding the UWMP update must be reported in accordance with the rules adopted pursuant to CWC §10608.34. See Table 4-B for the last five years of water loss audit reporting of the LVMWD systems.

Table 4-B. Last Five Years of Water Loss Audit Reporting

Reporting Period Start Date (mm/yyyy)	Volume of Water Loss (AF)
01/2021 - 12/2021	529
01/2022 - 12/2022	1,289
01/2023 - 12/2023	1,389
01/2024 - 12/2024	1,820
01/2025 - 12/2025	1,225
NOTES: Loss numbers are calculated by subtracting Authorized Consumption from Water Supplied to the delivery system.	

LVMWD conducts annual validated water loss audits in compliance with California Water Code and SB 555 requirements using AWWA methodology. The audits quantify real and apparent losses, calculate non-revenue water, and compare performance to state standards. These results guide ongoing leak detection, pressure management, and meter accuracy programs to reduce losses and improve system efficiency. Submittal Table 4-4 shows the status of submission to DWR's Water Loss Audit Program.

Submittal Table 4-4 Retail: Water Loss Audit Reporting

Submittal Table 4-5 Retail: Water Loss Audit Reporting Water Code Section 10631(d)(3)(A)		
Public Water System ID # Reported in Table 2-1 R	Reporting Period	Submitted to DWR Water Loss Audit Program (yes/no)
Report submittal status for all five years for each Public Water System as available. Add rows as needed		
	2020	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes
DWR NOTES: Suppliers will provide a link to the WUEdata submittals of their Water Loss Audit Reports.		
NOTES: https://wuedata.water.ca.gov/awwa_plans		

4.3.2 Progress Toward Meeting the Water Loss Performance Standard

Pursuant to Water Code Section 10631(d)(3)(C), Retail Suppliers are required to provide data demonstrating whether the Retail Supplier met its State Water Board Water Loss Performance Standard in 23 CCR Section 980 for each applicable PWS. Submittal Table 4-6 R allows for reporting on progress toward meeting the Water Loss Performance Standard. Projected water losses, reported in five-year increments for at least 20 years, must also be included to effectively evaluate water service reliability, and

it is one of the water use sectors that requires reporting per Water Code Section 10631(d)(1). Projected water losses through 2050 are shown in Table 4-2.

See Submittal Table 4-5 for the district's progress towards the 2028 Water Loss Standard. Note that the Water Loss Performance Standard does not have to be met until 2028. However, Water Code Section 10631(d)(3)(C) still requires that Retail Suppliers include data in their 2025 UWMPs to show whether they met it.

Submittal Table 4-5 Retail: Progress Towards 2028 Water Loss Standard

Submittal Table 4-6 Retail: Progress Towards 2028 Water Loss Standard
Water Code Section 10631(d)(3)(C)

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System? (y/n) If no, Supplier will not complete this row.	Real Water Loss					Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		Real Water Loss Per Unit per Day	State Water Board Standard		Most Recent AWWA Water Loss Audit		Apparent Water Loss Per Unit per Day
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop down list	Number of Units (Connections or Miles corresponding with units selected)	Volume of Total Real Loss (from AWWA Water Loss Audit) (AF)		2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit) (AF)	
Add additional rows as needed.											
CA1910255	Yes	230	Gallons per Service Connection per Day (GPSCD)	20,667	1,006.21	43.5	12.6	Gallons per Service Connection per Day (GPSCD)	20,667	218.31	9.4

Water Board's Calculated Water Loss Standards

DWR NOTES: Units of measure (AF, CCF, MG) for Water Loss **MUST** remain consistent with units reported in Submittal Table 2-3. The units reported in Submittal Table 2-3 are used in this table's calculations.

Chapter 5. SBX7-7 Baseline, 2020 Targets, and 2025 Reporting

This chapter reports the actual 2020 daily per capita water use that was determined by the 2020 UWMP in accordance with the Water Conservation Act of 2009, also known as Senate Bill x7-7 (SBx7-7), and whether the District met their 2020 SBx7-7 target. SBx7-7 provides regulatory framework to support a statewide reduction of urban per capita water use of 20% by December 31, 2020, and on.

The previous 2020 UWMP reported an actual per capita water use of 227 GPCD, which falls under the 2020 target of 249 GPCD, as shown in Submittal Table 5-1. Therefore, the District met the targeted reduction for 2020. The baseline daily per capita water use was calculated using 80% of the water supplier's baseline per capita water use. Baseline daily per capita water use is defined as a continuous 10- or 15-year base period (baseline) for water use between December 31, 2004, and December 31, 2020. The DWR Population tool was used to determine the 2020 population for the LVMWD service area, which extracts U.S. Census data at the block level for boundaries submitted by the user.

A regional alliance is a group of water suppliers agreeing among themselves to plan, comply, and report urban water use target requirements of SBX7-7 as a region. The District is not participating in a regional alliance in the context of this UWMP.

Submittal Table 5-1 Retail: SBx7-7 2020 Target Progress

Submittal Table 5-1 Retail: SB X7-7 2020 Target Progress
Water Code Section 10608.40

☐	**Check the box if the Supplier was not an Urban Water Supplier during or before the 2020 UWMP reporting cycle. Proceed to the next table.**					
Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target? Drop down list	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?	**Only for suppliers that did not meet the Target in 2020 See DWR NOTES below.**	
					Actual 2025 GPCD (From SB X7-7 Compliance Form)	Did Supplier meet the 2020 Target in 2025?
No	Individual Target	249	227	Yes		NA

DWR NOTES:
Suppliers calculating a 2025 GPCD will need to complete and submit SB X 7-7 Compliance Tables to verify the use of SB X7-7 Methodologies.
Suppliers that were part of a merger or consolidation since 2020 see Chapter 5 and Appendix P for guidance.
NA=Not Applicable

NOTES:

Chapter 6. Normal-Year Water Supply Characterization

6.1 Water Supply Analysis Overview

LVMWD is in the Santa Monica mountains and has very limited natural water resources based on the geographic location and topography. Currently, the District relies on four main sources for water supply:

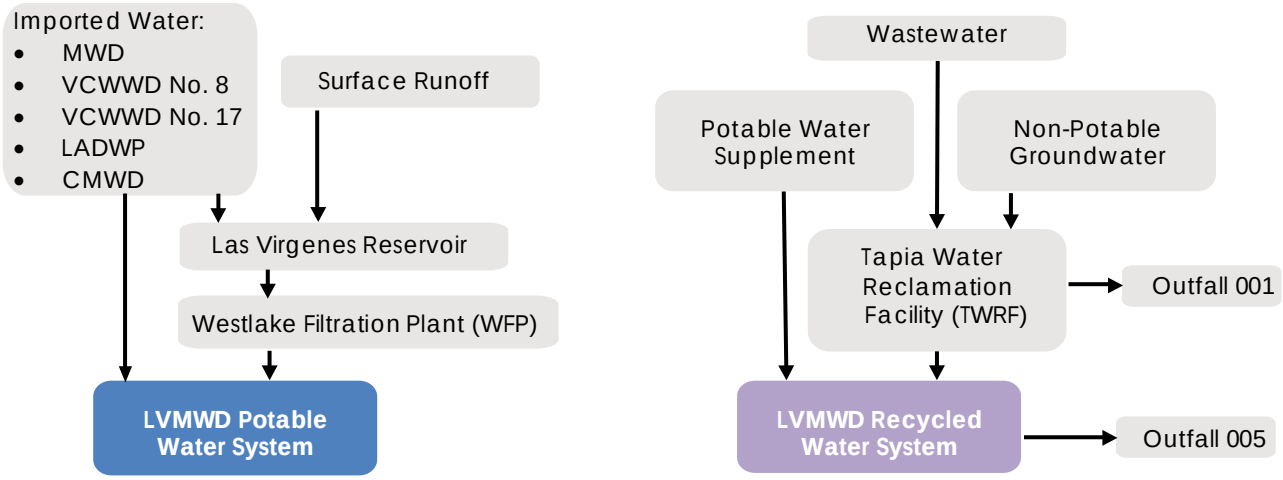
- **Imported Potable Water** from MWD, City of Simi Valley/ Ventura County Waterworks District (VCWWD) No. 8, VCWWD No. 17, City of Los Angeles Department of Water and Power (LADWP), and Calleguas Municipal Water District (CMWD).
- **Recycled Water** produced at the TWRF, which treats wastewater from the LVMWD and Triunfo Water and Sanitation District (TWSD) service areas and supplemental groundwater.
- **Groundwater** from the Thousand Oaks Area Basin, which is only used to supplement the recycled water supplies.
- **Supply from Storage** from the Las Virgenes Reservoir, which is filled by imported water during low demand seasons and surface water runoff.

The Las Virgenes – Triunfo Joint Powers Authority (JPA) is also investing in their Advanced Water Purification Facility (AWPF) through their Pure Water Project to comply with increasingly stringent regulatory requirements for discharging to the Malibu Creek and create a local drinking water source. This provides increased reliability and will help meet the water demand of the LVMWD service area into the future. Anticipated to be operational by 2030, this project involves treating excess tertiary treated recycled wastewater to State indirect potable reuse standards through advanced filtration methods to augment surface water supply in the Las Virgenes Reservoir.

6.1.1 Specific Analysis Applicable to All Water Supply Sources

The District has two (2) separate water systems: one for potable water to serve potable retail customers and one for recycled water to serve irrigation customers. The two water systems are described in detail in Chapter 3. See Figure 6-1 for a schematic of water supplies to each system.

Figure 6-1: Schematic of LVMWD Water Supplies to Each System



Potable Water System: The largest source of supply for LVMWD's potable water system is imported water. The majority of imported potable water enters directly into the District's potable water distribution system; however, some is used to recharge Las Virgenes Reservoir during low-demand seasons. The water stored in the reservoir is treated at the Westlake Filtration Plant (WFP) to meet Title 22 California Code of Regulations, Division 4, Chapter 17 surface water treatment requirements for drinking water.

Between 2021 and 2025, the District purchased potable water from MWD, VCWWD No. 17, and VCWWD No. 8. MWD treats SWP imported water at the Jensen Filtration Plant in Granada Hills, California, prior to delivery to LVMWD. An interconnection with LADWP has historically been used to supplement potable water supplies during MWD outages. Over the last five years, only 2 AF has been purchased from LADWP. In 2025, LVMWD established an interconnection with CMWD to further increase the reliability of its potable water systems and it is now operable. However, the CMWD connection is only intended to be used in an emergency if both parties agree.

The District is also investing in their Pure Water Project, which will use surplus tertiary-treated recycled water from the TWRF and purify it through advance water treatment methods (membrane filtration, reverse osmosis, and ultraviolet light with advanced oxidation) to meet State indirect potable reuse standards to augment surface water supply. The advanced water purification facility (AWPF) will treat 7.5 MGD that will produce up to 6.0 MGD of purified water. The advanced treated water will then be blended and stored with the imported water in the Las Virgenes Reservoir and undergo final treatment at the Westlake Filtration Plant prior to distribution in the potable water system. The AWPF will operate seasonally with sequential removal of individual process units from service, followed by extended periods of offline time when treatment equipment will need to be drained or preserved. The design accommodates preservation of membranes, as well as flushing and draining of systems and piping during

seasonal downtime.[3] It is anticipated that the Pure Water Project will be constructed and operational by 2030, allowing LVMWD to reduce the volume of imported water purchased through MWD.[4]

Recycled Water System: The TWRF treats an average of 7.9 MGD of sewage and brings virtually all of the secondary effluent to tertiary treated levels meeting Title 22 Requirements. In 2025, 4,976 AF of recycled water was delivered to LVMWDs recycled water system for beneficial reuse. Wastewater flows to the TWRF are historically consistent through normal and dry years so supply during normal, single-dry, and five-year drought are expected to remain constant.

Groundwater from LVMWD's two (2) groundwater production wells provide supplemental water to the TWRF to aid in recycled water supplies as needed. Submittal Table 6-8 is used to report current water supplies for each water supply source. Groundwater supply is not directly shown in Table 6-8 but is accounted for in the total recycled water volume.

Projected supply for the potable water and recycled water systems for 2030 to 2050 is shown in Submittal Table 6-9. The projected supply from these sources for normal, single-dry, and five-year drought reflects the reliability of these sources as discussed in 7.2.

6.1.2 Special Considerations

Numerous special conditions could affect the availability and long-term reliability of LVMWD's potable, recycled, and groundwater supplies. These considerations include climate-driven hydrologic changes, regulatory conditions affecting imported water deliveries, recycled water production, groundwater extraction, and coordination requirements with MWD and partner agencies. This section summarizes the key considerations relevant to LVMWD's supply characterization.

6.1.2.1 Climate Change Effects

Climate change is expected to have a direct impact on LVMWD's local and imported supplies. Although the exact magnitude is uncertain, the District anticipates reduced long-term reliability due to the following factors: an increase in evaporation, an increase in temperature, and a decrease in annual precipitation that may increase losses at the Las Virgenes Reservoir and reduce surface water from infiltrating into groundwater basins resulting in lower groundwater levels. Considerations from climate change are discussed in Section 4-2.

6.1.2.2 Regulatory Conditions and Project Development

Regulatory actions and regional projects can influence LVMWD's future supply reliability.

Imported water: Regulatory conditions that could affect imported water supply to LVMWD service include any change in allocation either directly from MWD or other Ventura County suppliers. Since MWD has a contract allocation to obtain water from the SWP and the Colorado River, any changes to these

[3] PWP Conceptual Design Report Final, Jacobs (February 2023) https://www.ourpureh2o.com/files/1d4751942/PWP_RPT_ConceptualDesignReportFinal_Jacobs_230208.pdf

[4] Pure Water Project FAQs - Las Virgenes-Triunfo Joint Powers Authority https://www.ourpureh2o.com/faqs

contracted sources can influence the supply available to LVMWD. Also, during periods of reduced water measures or drought, MWD could implement Water Shortage Action Plans that could affect supply. Future projects such as expanded storage capacity or conveyance facilities implemented by MWD can provide additional capacity to their water systems which may strengthen the reliability of the of the supply to LVMWD.

Groundwater: There are no defined legal pumping rights for LVMWD within the Thousand Oaks Area Basin. As discussed in Section 6.2.2.2, LVMWD has not adopted a groundwater management plan, and no regional groundwater management plan currently exists for the Basin.

Recycled Water: Recycled water supply is regulated by the State Title 22 requirements. Any change in the State law applicable to the production, distribution and disposal of recycled water may influence the supply produced at the TWRF.

6.1.2.3 Other Local Applicable Criteria

There are no additional local criteria that affect LVMWD's water supply characterization.

6.1.2.4 Wholesale and Retail Suppliers Coordination

LVMWD relies on MWD for reliability projections for its imported water supplies, including projected allocation conditions during normal year, single dry year, and five consecutive dry years. LVMWD incorporates these wholesale projections into its own reliability analysis presented in Chapter 7. In return, the District provides MWD with updated demand projections in five-year increments to 20 years, as required under the Water Code Section 10631(h).

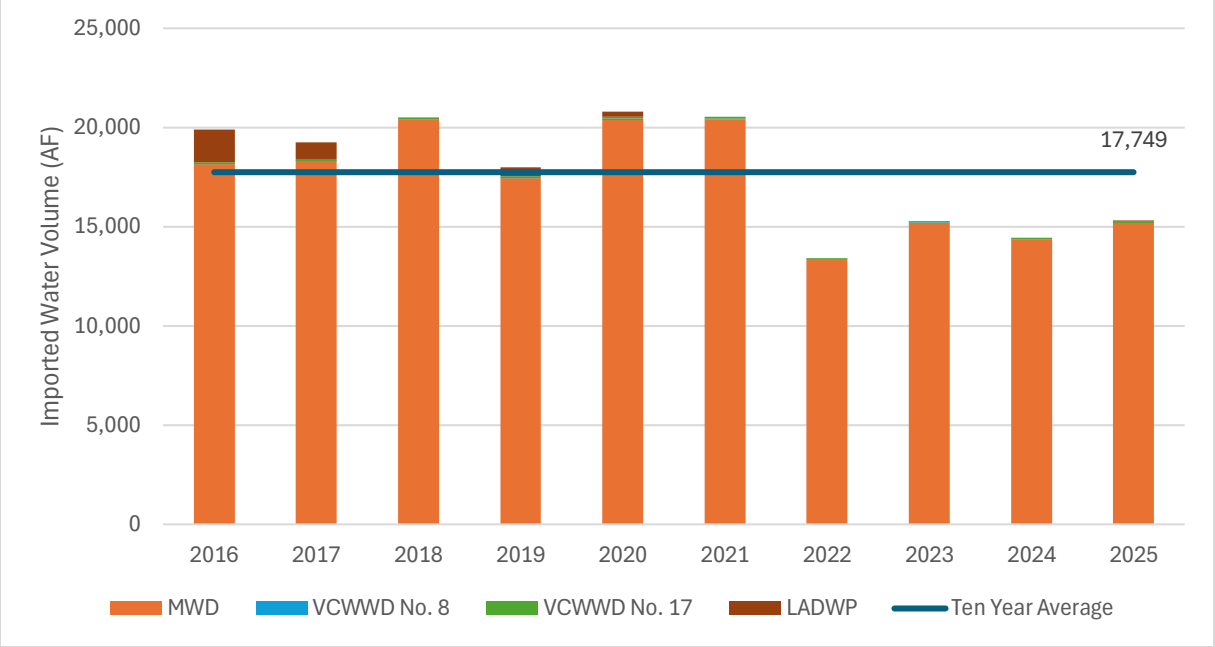
LVMWD also coordinates with the TWSD for joint operation of the TWRF to provide recycled water and has connections with the City of Simi Valley/Ventura County Waterworks District (VCWWD) No. 8, VCWWD No. 17, City of Los Angeles Department of Water and Power (LADWP), and Calleguas Municipal Water District (CMWD) for supplemental and emergency imported potable water.

6.2 Water Supply Characterization

6.2.1 Purchased or Imported Water

Although the District also has imported water supply connections with VCWWD No. 8, VCWWD No. 17, LADWP, and CMWD, its largest imported supply is through MWD. As shown in Figure 6-2, over the last 10 years, MWD has accounted for 97.6 percent of the District's imported water supplies. On average, the District has received approximately 17,749 AF per year through its imported water connections over the past decade, with higher deliveries occurring prior to 2022 and reduced deliveries in more recent years. Specific imported water volumes for the 2021 through 2025 period are summarized in Table 6-C.

Figure 6-2: LVMWD 10-Year Historical Imported Water Supplies



6.2.1.1 Metropolitan Water District of Southern California (MWD)

Formed in 1928, MWD is a wholesale water agency that has no retail customers but serves customers through its member cities and agencies, which account for approximately 19 million people. MWD imports water from northern California through the SWP and the Colorado River to meet the needs of 26 member cities and agencies across six Southern California counties. As shown in Table 6-A and Figure 6-3, LVMWD is one of MWD's member agencies.

Table 6-A: MWD Member Cities and Agencies

MWD Member Cities and Agencies		
City of Anaheim	City of San Fernando	Inland Empire Utilities Agency
City of Beverly Hills	City of San Marino	**LVMWD**
City of Burbank	City of Santa Ana	Municipal Water District of Orange County
City of Compton	City of Santa Monica	San Diego County Water Authority
City of Fullerton	City of Torrance	Three Valleys Municipal Water District
City of Glendale	Calleguas Municipal Water District	Upper San Gabriel Valley Municipal Water District
City of Long Beach	Central Basin Municipal Water District	Western Basin Municipal Water District
City of Los Angeles	Eastern Municipal Water District	Wester Municipal Water District of Riverside County

MWD Member Cities and Agencies		
City of Pasadena	Foothill Municipal Water District	

Currently, the configuration of MWD's distribution system allows LVMWD to receive SWP water originating from northern California through the Sacramento-San Joaquin Bay-Delta (Bay-Delta). The SWP water is treated at Jensen Filtration Plant in Granada Hills prior to delivery to LVMWD. LVMWD's SWP deliveries from MWD for years 2021 through 2025 are shown in Table 6-C.

Colorado River

MWD has a permanent service contract with the Secretary of the Interior, which grants them legal entitlement to receive water from Lake Havasu on the Colorado River. MWD owns and operates the Colorado River Aqueduct (CRA), which transports an annual 1.2 million acre-feet of water from Lake Havasu to Lake Mathews in Riverside County. Lake Havasu, located on the Colorado River along the California-Arizona border, is approximately 242 miles from Lake Mathews. Most of this water is conveyed to member agencies south and east of LVMWD.

Sacramento- San Joaquin River Delta

MWD also receives and treats water from the San-Joaquin River Delta (Delta) in Northern California via a contract with the DWR. Water is conveyed from the Delta via the 444-mile-long California Aqueduct that is part of the SWP. The SWP is a water storage and delivery system of reservoirs, aqueducts, power plants and pumping plants extending more than 700 miles throughout California. Managed by DWR, the SWP is the nation's largest state-built, multi-purpose, user-financed water project and can deliver nearly 4.2 million acre-feet of water annually.

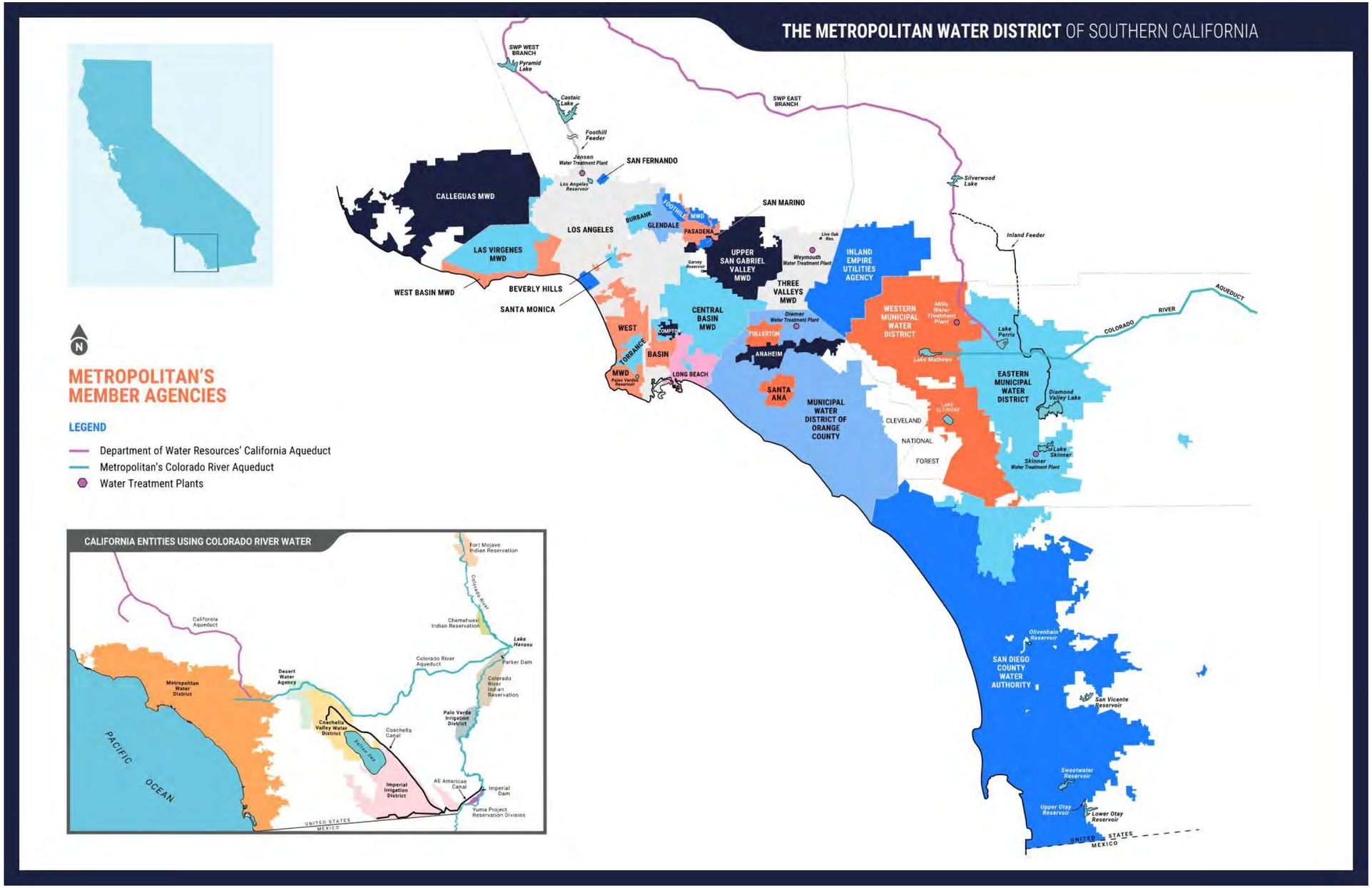
The SWP provides imported water to MWD's service area, making up 25% to 50% of MWD's supply. In accordance with its contract, MWD has a Table A allocation of 1,911,500 acre-feet per year. SWP water is treated at MWD's owned and operated Joseph Jensen Filtration Plant in Grenada Hills. This treated water from the Sacramento-San Joaquin River delta is imported to LVMWD via three connections (LV1, LV2, and LV3) from MWD's system. Based on the LVMWD's 2014 Potable Water Master Plan Update, LVMWD's total instantaneous imported water supply capacity is 33,000 gallons per minute (gpm), or 73 cubic feet per second (cfs), as shown in Table 6-B.

Table 6-B: Capacities of MWD Connections

Connection	MWD Pipeline Designation	Current Capacity (gpm/AFY)	Planned Capacity (gpm/AFY)
LV1	West Valley Feeder No. 1	11,000 (gpm) / 17,750 (AFY)	11,000 (gpm) / 17,750 (AFY)
LV2	Calabasas Feeder	20,000 (gpm) / 34,000 (AFY)	34,000 (gpm) / 54,880 (AFY)
LV3	West Valley Feeder No. 2	2,000 (gpm) / 3,228 (AFY)	3,100 (gpm) / 5,004 (AFY)
	Total	**33,000 (gpm) / 53,258 (AFY)**	**48,000 (gpm) / 77,634 (AFY)**

Source: 2007 Integrated Systems Master Plan (Boyle 2007a), as presented in LVMWD's 2010 UWMP Table 3.4.
*The capacity of the turnouts is limited by agreement.

Figure 6-3: MWD Member Agencies' Services Areas



Source: https://www-admin.mwdh2o.com/media/13xbx2qm/member-agency-map.pdf

Reliability of MWD Supplies

Based on the 2025 Final Draft MWD UWMP, as discussed in Chapter 7, it is anticipated that supplies will reliably meet water demands through 2040 during average, single dry-, and five-year drought. MWD estimates a surplus of supplies over demands for all water year types for their customer base. Based on this reliability, MWD can supply the full water demands for LVMWD for all year types. Hence, for purposes of projecting available imported MWD supplies for this 2025 UWMP, these water supplies have been set equal to total LVMWD demands (see Submittal Table 6-9).

6.2.1.2 Imported Supplies from Other Agencies

Over the last ten years, water supply agencies other than MWD account for less than 2.4 percent of LVMWD's potable water supply. A summary of imported water purchases from 2021 to 2025 for imported sources are shown in Table 6-C.

During MWD system outages, LVMWD has historically purchased water supplied by LADWP through two different turnouts: one located at Kittridge Street and the other at Germain Street with maximum capacities of 9,000 gpm and 1,350 gpm, respectively. However, as shown in Table 6-C, LVMWD has not purchased any water from LADWP over the past 5 years. As described in Section 6.2.7.1, an interconnection with CMWD was completed in 2025. At the time of this UWMP, LVMWD has not yet purchased water through this Calleguas interconnection.

Interconnections with these VCWWD No 8 and VCWWD No 17 provide potable water generally to two small areas in the hills west of the San Fernando Valley, Woolsey Canyon and Box Canyon, which include the cities of West Hills and Chatsworth. These areas are geographically isolated, and currently not connected to the rest of the LVMWD distribution system.

Table 6-C: LVMWD Imported Water Supply for 2021 to 2025

	Imported Water Supply for 2021 to 2025 (AFY)				
Import Water Supplier	**2021**	**2022**	**2023**	**2024**	**2025**
MWD	20,428	13,339	15,189	14,365	15,177
VCWWD No. 8	18.2	10.9	18.2	7.2	14.3
VCWWD No. 17	100	69.6	81	85	89.4
LADWP	0	0	0	0	2
CMWD	--	--	--	--	0
Total	**20,546**	**13,420**	**15,288**	**14,457**	**15,283**

6.2.2 Groundwater

As shown in Figure 6-4, LVMWD service area overlies portions of multiple groundwater basins including the Thousand Oaks Area, Russell Valley, Malibu Valley, and San Fernando Valley Basins. Currently, LVMWD operates two (2) groundwater production wells in the Thousand Oaks Area Basin: Westlake Well 1 and Westlake Well 2.

6.2.2.1 Basin Description

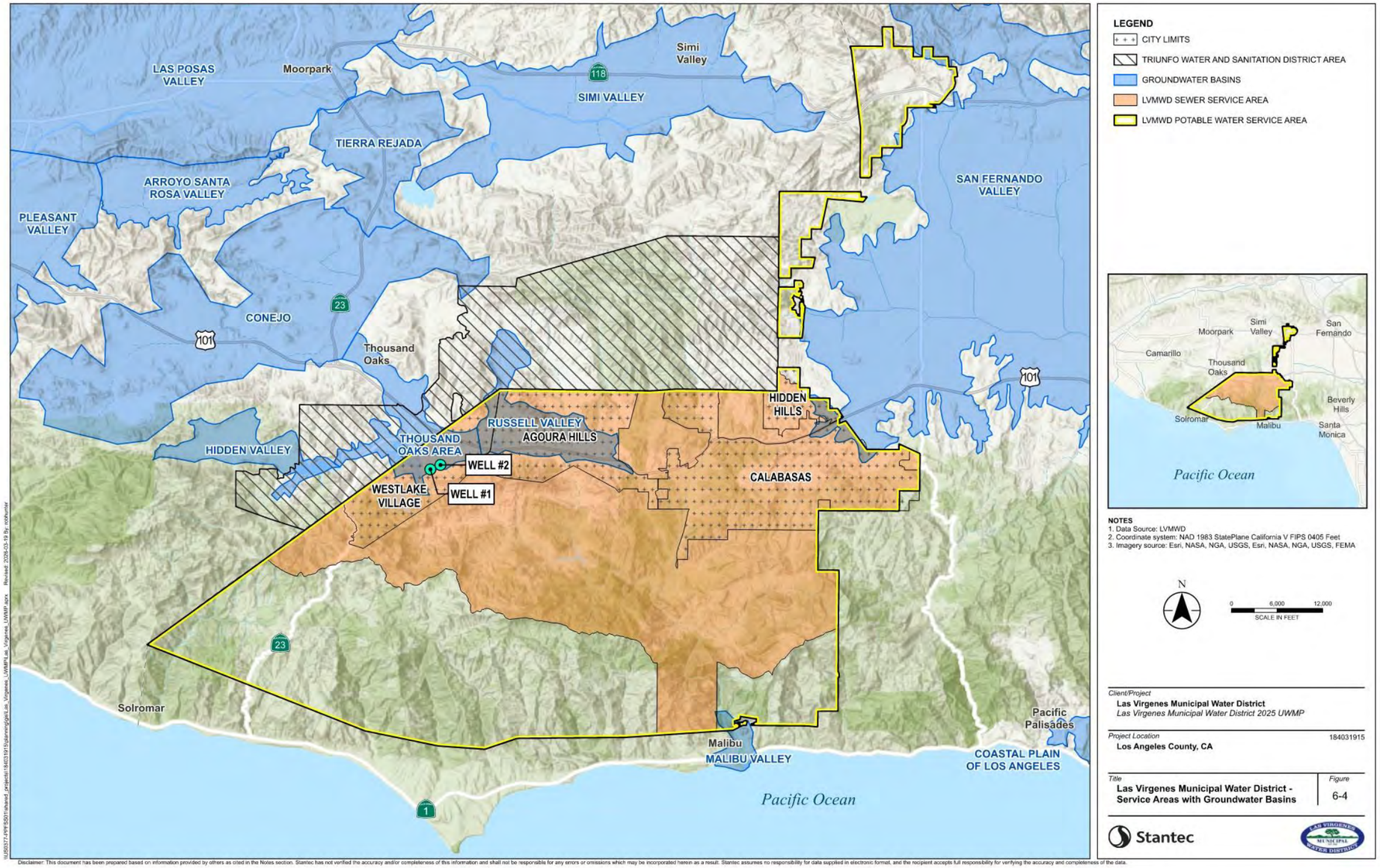
The Thousand Oaks Area Groundwater Basin (Basin), DWR Basin No. 4-019, shown on Figure 6-3, is a relatively small alluvial basin straddling Ventura and Los Angeles Counties in the Russell Valley area. The basin is bounded by semi-permeable rocks of the Santa Monica Mountains. Triunfo Creek and Potrero Valley Creek drain the areas of Russell Valley and Triunfo Canyon into Malibu Creek. The Basin underlies a surface area of about 3,100 acres or five square miles. Groundwater in the Basin is primarily found in Quaternary age alluvium, with some water found in sandstone beds and fractures. Recharge to the Basin occurs by percolation of rainfall and stream flow from Conejo Creek. The Basin is estimated to have a total storage capacity of 130,000 AF.

According to California's Groundwater Bulletin 118, groundwater quality is impacted by magnesium-calcium- and sodium-sulfate. TDS content averages about 1,400 mg/L but can be as high as 2,300 mg/L in some areas. In addition to high TDS levels in the Basin, water quality is also impaired by high alkalinity and hardness. Due to poor water quality, groundwater from the Basin is only used to supplement the recycled water supply by pumping and blending with the wastewater collection system which is conveyed to TWRF for treatment.

6.2.2.2 Basin Management Information

The Thousand Oaks Area Basin is not adjudicated and DWR has not identified it to be in an overdraft condition based on Bulletin 118. There are no defined legal pumping rights for LVMWD within the basin. LVMWD has not adopted a groundwater management plan, and a regional groundwater management plan does not currently exist for the Basin. The Basin has been rated a "very low" priority basin by DWR and as such is not subject to the Sustainable Groundwater Management Act of 2014.

Figure 6-4: LVMWD Service Areas with Groundwater Basins



Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

6.2.2.3 Other Considerations

The Westlake Well 1 and Westlake Well 2 are located along Lindero Canyon Road, south of Highway 101. The combined capacity of these two wells is approximately 1.15 MGD, or 800 gpm.

Groundwater from these wells provides a local source of water supplies solely used to augment recycled water supplies due to high levels of iron and manganese found in the groundwater. Before the groundwater is used to supplement recycled water, it is treated via discharge into the sewer collection system when additional recycled water is needed. After mixing within the wastewater collection system, this water is treated at the TWRF, at which point it is used to supplement the recycled water system.

6.2.2.4 Past Five Years Groundwater Pumping

Since groundwater supplies are only used to supplement LVMWD's recycled water system during the peak demand season, annual groundwater pumping can vary significantly seasonally and annually. Figure 6-5 shows annual groundwater pumping in 2025.

Figure 6-5: LVMWD 2025 Groundwater Extractions

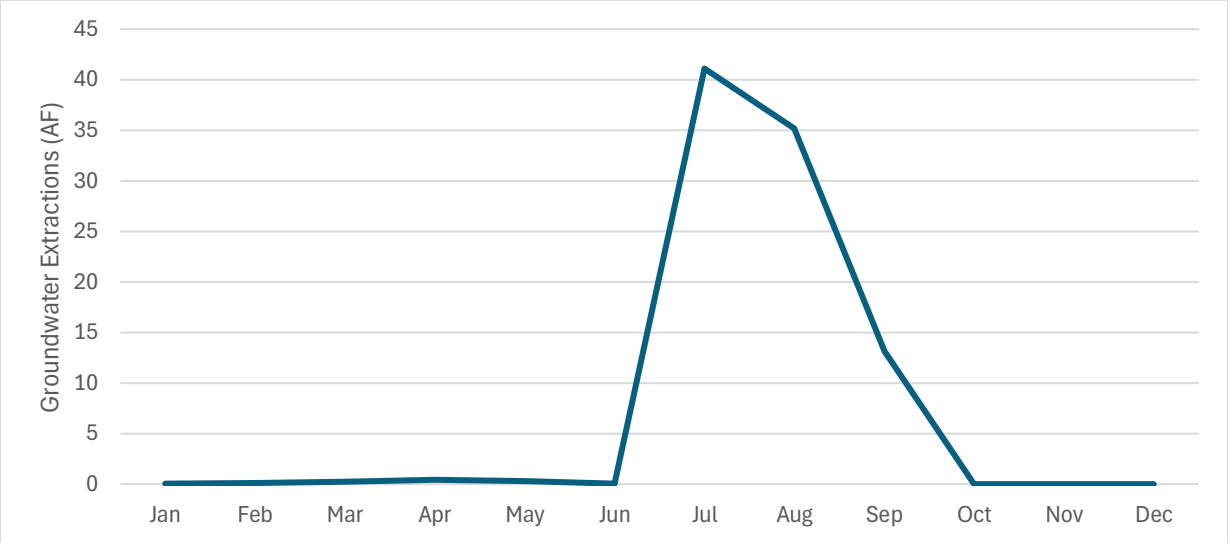
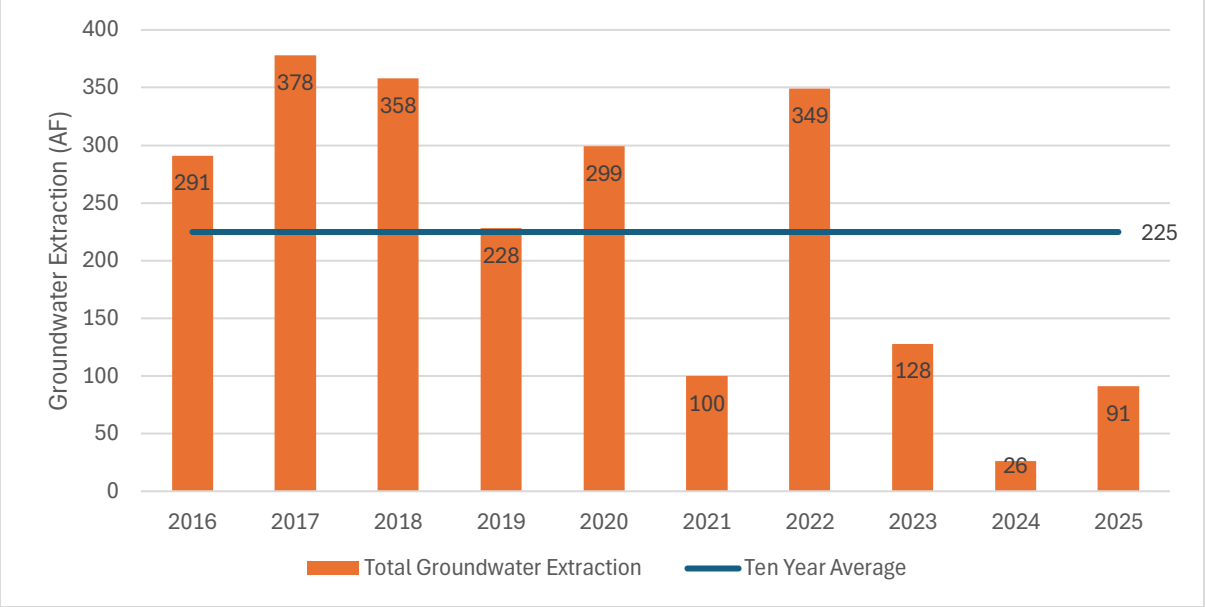


Figure 6-6 shows LVMWD's 10-Year historical groundwater extractions. Over the 10-year period, average annual groundwater extractions are approximately 225 AFY. Pumping was generally higher prior to 2021 and has substantially reduced in more recent years. The reduced pumping observed from 2023 through 2025 reflects a possible trend toward decreased reliance on groundwater supplies during peak demand periods.

Figure 6-6: LVMWD Historical Groundwater Extractions



The amount of groundwater pumped each year from the Basin via the two Westlake Wells over the last five years is presented in Submittal Table 6-1.

Submittal Table 6-1 Retail: Groundwater Volume Pumped

Submittal Table 6-1 Retail: Groundwater Volume Pumped Water Code Section 10631(4) and 10631(4)(c)							
☐	Check the box if the Supplier does not pump groundwater. Proceed to the next table.						
☐	Check the box if all or part of the groundwater described below is desalinated. (OPTIONAL)						
Groundwater Type **Drop Down List** May use each category multiple times	Potable or Non-Potable (OPTIONAL) **Drop down list**	Location or Basin Name	2021 (AF)	2022 (AF)	2023 (AF)	2024 (AF)	2025 (AF)
Add additional rows as needed							
Alluvial Basin	Non-Potable	Thousand Oaks Area Basin	100	349	128	26	91
		Total	100	349	128	26	91
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.							
NOTES							

Based on the current conditions of the Thousand Oaks Area Basin, the low-priority rating by DWR, and historically low levels of pumping by LVMWD, groundwater supplies are anticipated to be reliably available throughout the planning period of this UWMP. Projections of groundwater to be pumped from the Basin are presented in Table 6-D. These projections assume that groundwater will be required to supplement wastewater flows for production of recycled water for two months out of each year based on average 10-year historical pumping rates.

Table 6-D. Projected Groundwater Supply

Location or Basin Name	2030	2035	2040	2045	2050
Thousand Oaks Area Basin	225	225	225	225	225
TOTAL	225	225	225	225	225
NOTES: Groundwater pumping projections assumes the average over the last ten years will remain constant to supplement recycled water supplies.					

6.2.3 Surface Water

The Las Virgenes Reservoir watershed receives a small amount of surface runoff each year. Based on an assumed watershed area of 550 acres, the reservoir receives approximately 770 AF of runoff annually. It is estimated that watershed runoff roughly offsets evaporative losses on an annual basis. However, due to the uncertainty of runoff volumes and the minimal contribution to overall water supplies, this runoff cannot be reliably accounted for in LVMWD supplies and is not included in Submittal Table 6-9.

Stormwater is not used for water supply to LVMWD's system currently, but LVMWD is pursuing using stormwater as a water augmentation strategy to maximize the operational capacity of the AWPF.

6.2.4 Wastewater and Recycled Water

6.2.4.1 Recycled Water Coordination

Wastewater flows in the area are treated to secondary and tertiary levels at the TWRF. The existing recycled water system is jointly owned and operated by LVMWD, Triunfo Water and Sanitation District (TWSD), and Calleguas Municipal Water District (CMWD). This system currently serves customers ranging from Calabasas in the east to Thousand Oaks in the west.

LVMWD has aggressively pursued the development of a recycled water system and optimizations for reuse in its service area. The District requires all non-residential landscaping located along the District's recycled water distribution main lines to be designed or converted to utilize recycled water for landscape irrigation. Currently, LVMWD serves recycled water to 658 dedicated recycled water accounts within their service area.

Recycled water master planning efforts began in the 1980s with concepts for a system to serve the region. Master Plans for the existing recycled water system were prepared in 1985, 1988, 1999, 2007, and most recently updated in 2014.

6.2.4.2 Wastewater Collection, Treatment, and Disposal

Wastewater is collected and treated at TWRF, which is owned by the Joint Powers Authority (JPA) of LVMWD and TWSD. TWRF was initially constructed in 1965 with an initial capacity of 0.5 MGD. The current design treatment capacity of TWRF is 16 MGD (17,922 AFY). However, due to permit limitations on nutrients, the current treatment capacity is approximately 12 MGD (13,442 AFY). The plant is located on Malibu Canyon Road at the southern edge of LVMWD's wastewater service area, as shown in Figure 3-1, and provides primary, secondary, and tertiary treatment.

Wastewater Collection

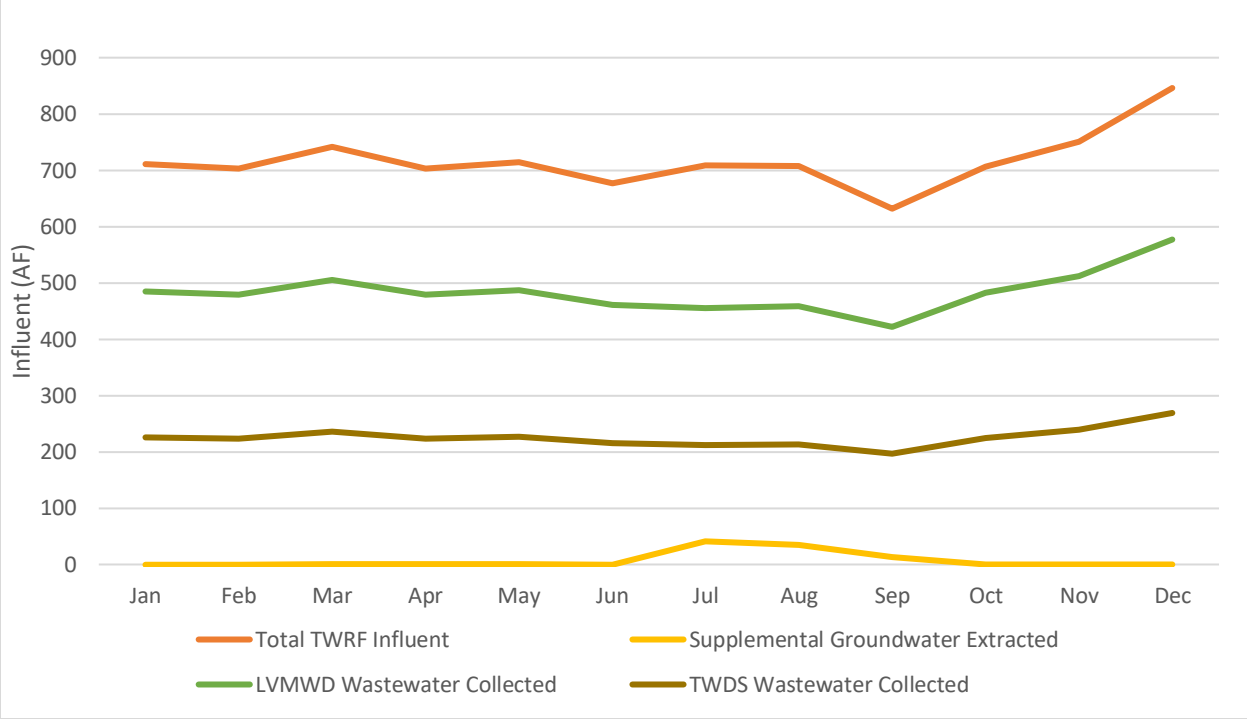
TWRF treats wastewater contributed by both LVMWD and TWSD from their respective service areas, as well as groundwater from the Westlake Wells when needed. As mentioned in Section 6.2.2, groundwater from Westlake Well 1 and Westlake Well 2 is conveyed via the sewer system to the TWRF, where it is treated and distributed as supplemental recycled water.

As shown in Figure 6-7, the average 2025 daily flows into TWRF were consistent throughout the year but did show slight seasonal variation. During storm events, the daily flows into the TWRF can double due to inflow and infiltration into the sewer mains. On average, the ratio of LVMWD wastewater to TWSD wastewater is approximately 68.2 to 31.8 percent based on billing records.

The total TWRF influent in 2025 was approximately 7.67 MGD (8,601 AFY), with

- 5.18 MGD (5,804 AFY) from customers in LVMWD service area,
- 2.41 MGD (2,706 AFY) from TWDS's service area, and
- 0.08 MGD (91 AFY) of groundwater from LVMWD's two groundwater wells to supplement recycled water during the summer months.

Figure 6-7: 2025 Gross Influent Flows to TWRF



The volume of wastewater collected within LVMWD's service area in 2025, excluding flows from TWSD, is presented in Submittal Table 6-2. Although the TWRF is jointly owned by the Las Virgenes–Triunfo Joint Powers Authority (JPA), the TWSD lies outside LVMWD's service area. Accordingly, the wastewater volumes summarized in Submittal Table 6-2 represent only flows generated within LVMWD's service area and do not include contributions from TWSD.

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2025

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area Water Code Section 10633(a)				
☐	Check the box if there is no wastewater collection system. Proceed to the next table.			
	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)			
	Percentage of 2025 service area population served by wastewater collection system (OPTIONAL)			
Wastewater Collection			**Recipient of Collected Wastewater**	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? OPTIONAL **Drop Down List**	Volume of Wastewater Collected from UWMP Service Area 2025 (AF)	Name of Wastewater Treatment Plant (WWTP) and Place ID Number **Drop down list**	Is WWTP Located Within UWMP Area? **Drop Down List**
Add additional rows as needed				
JPA (LVMWD, TWSD)	Estimated	5,804	Tapia WRF, Place ID 266940	Yes
Total Wastewater Received from UWMP Service Area in 2025:		5,804		
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3. **Additional Guidance**: See Appendix M, Section M.21 for detailed guidance on this table.				
NOTES: Volume of wastewater collected is for LVMWD Service Area only and does not include inflows from TWSD				

Recycled Water and Disposal

Excess treated effluent from TWRF is discharged to two local waterways: Outfall 001 and Outfall 005. Discharges from the TWRF are regulated under an NPDES permit (Order No. R4-2005-0074) issued by the Los Angeles Regional Water Quality Control Board.

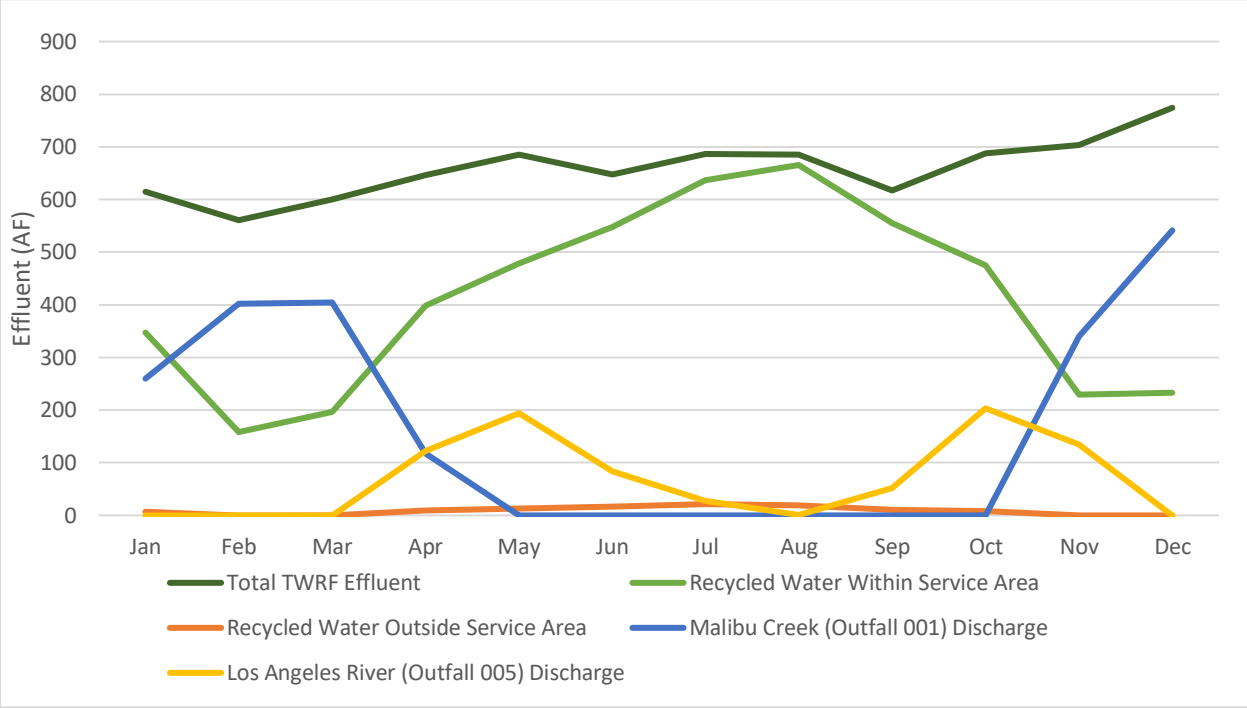
As shown in Figure 6-8, excess treated effluent is discharged to Malibu Creek (Outfall 001) primarily during the months of November to April. The NPDES permit generally prohibits discharging to Malibu Creek from April 15 to November 15 (Discharge Prohibition Period). LVMWD no longer releases recycled water from TWRF into the Malibu Creek, and instead uses treated potable water using breakpoint chlorination and de-chlorination for the required fish flow discharges to provide water pools (habitat) for the endangered steelhead trout. Beyond what can be discharged to Malibu Creek, the excess is discharged to the Los Angeles River (Outfall 005) via the Arroyo Calabasas, which requires pumping over the Calabasas grade.



Additional disposal through Rancho Farm Irrigation using the “spray fields” is available and utilized primarily during the discharge prohibition period when disposal to Malibu Creek is not permitted per NPDES permit compliance requirements.

The differences in TWRF influents versus effluent flows is due to flow-meter variability, water removed from the process as biosolids, and the return flows used during treatment, which average approximately 200,000 gallons. Additional losses occur in summer months due to evapotranspiration.

Figure 6-8. 2025 Gross Effluent Flows to TWRF



Submittal Table 6-3 summarizes the treated recycled water and discharge activities associated with the TWRF in 2025. The water recycled outside of UWMP service area represents the volume supplied to Pepperdine University. Effluent discharge that is not a permitted recycled water use represents the total volume discharged by Outfall 001 and Outfall 005.

Submittal Table 6-3 Retail: Wastewater Treatment and Outcomes Within UWM Service Area in 2025

Submittal Table 6-3 Retail: Wastewater Treatment and Outcomes Within UWMP Service Area
Water Code Section 10633(b)

☐ **Check the box if no wastewater is treated or disposed of within the UWMP service area.**
Proceed to the next table.

Wastewater Treatment Plant Name and Place ID Number **Drop down list**	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area? (OPTIONAL) **Drop down list**	2025 Volume of Wastewater Received from UWMP Service Area (As Reported in Submittal Table 6-2 R) (AF)	Total 2025 Volume of Water Treated (AF)	2025 Outcomes of Treated Wastewater										
				Water Recycled Within UWMP Service Area (enter data as applicable)		**Water Recycled Outside of UWMP Service Area** (enter data as applicable)		**Effluent Discharge that is not a Permitted Recycled Water Use** (enter data as applicable)		**Required Discharge for Instream Flow** (enter data as applicable)		**Delivered to Another Entity for Additional Treatment** (enter data as applicable)		
				Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Name of other entity
Add additional rows as needed														
Tapia WRF, Place ID 266940	Yes	5,804	7,910	Tertiary	4,922	Tertiary	104	Tertiary	2,884		0		0	
Total		5,804	7,910		4,922		104		2,884		0		0	

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
IPR: Indirect Potable Reuse would have the treatment level of its end use requirement in the Level of Treatment drop-down.
Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.

NOTES: Volume of wastewater collected is for LVMWD Service Area only and does not include inflows from TWSD

6.2.4.3 Recycled Water System Description

The recycled water distribution system begins at the TWRF, which is owned by the Joint Powers Authority (JPA) of LVMWD and TWSD. The JPA also owns and operates a complex distribution system, consisting of pipelines, pump stations, tanks and reservoirs, and associated appurtenances to deliver the recycled water to areas of Los Angeles and Ventura Counties. Recycled water uses are mainly landscape irrigation and golf course irrigation.

6.2.4.4 Current, Potential, and Projected Recycled Water Uses

The production of recycled water is relatively constant because the collected wastewater from LVMWD and TWDS are steady throughout the year. On the other hand, demands on the recycled water system vary on a seasonal basis. Demands during summer peaks can be several times higher than typical spring and fall demands. Historically, recycled water demands have significantly exceeded recycled water availability in the summer months, even with the utilization of supplemental groundwater water. As a result, potable water has also been needed to supplement the recycled water supply to meet irrigation demands. Since 2021, the amount of supplemental imported water has averaged approximately 270 AFY. In 2025, the District added approximately 54 AF of potable water to the recycled water.

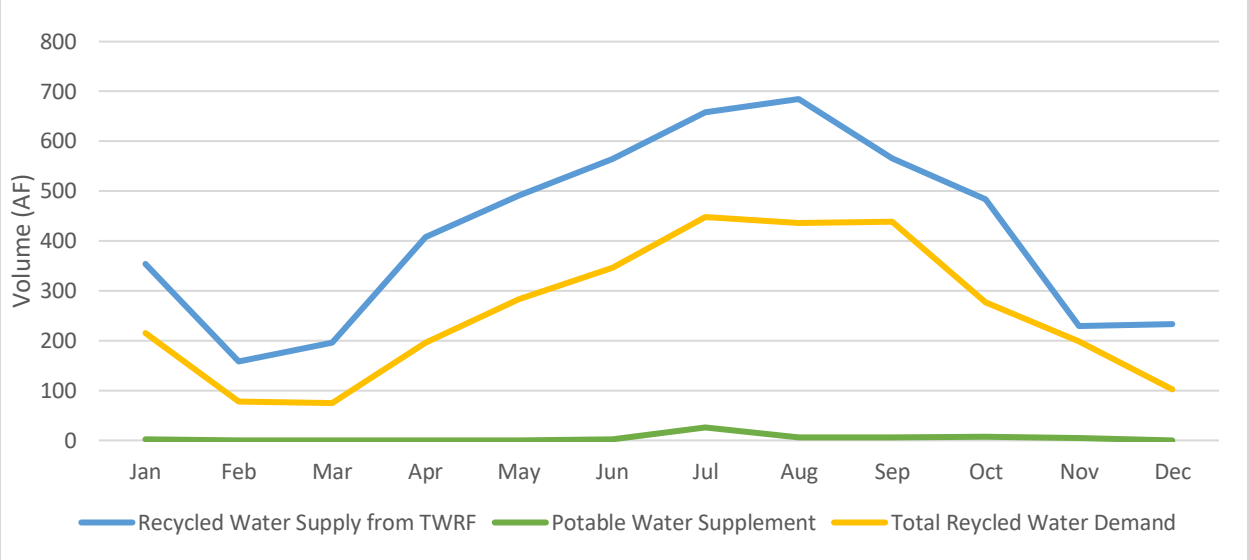
The capacities of the supplemental potable water sources connected to the recycled water system are summarized in Table 6-E.

Table 6-E. Supplemental Potable Water Capabilities for the Recycled Water System

Reservoir	Capacity (gpm / AFY)
Cordillera Tank	1,200 gpm / 1,937 AFY
Reservoir No. 2	2,100 gpm / 3,390 AFY
Morrison tank	1,300 gpm / 2,098 AFY
Total	**4,600 gpm / 7,425 AFY**

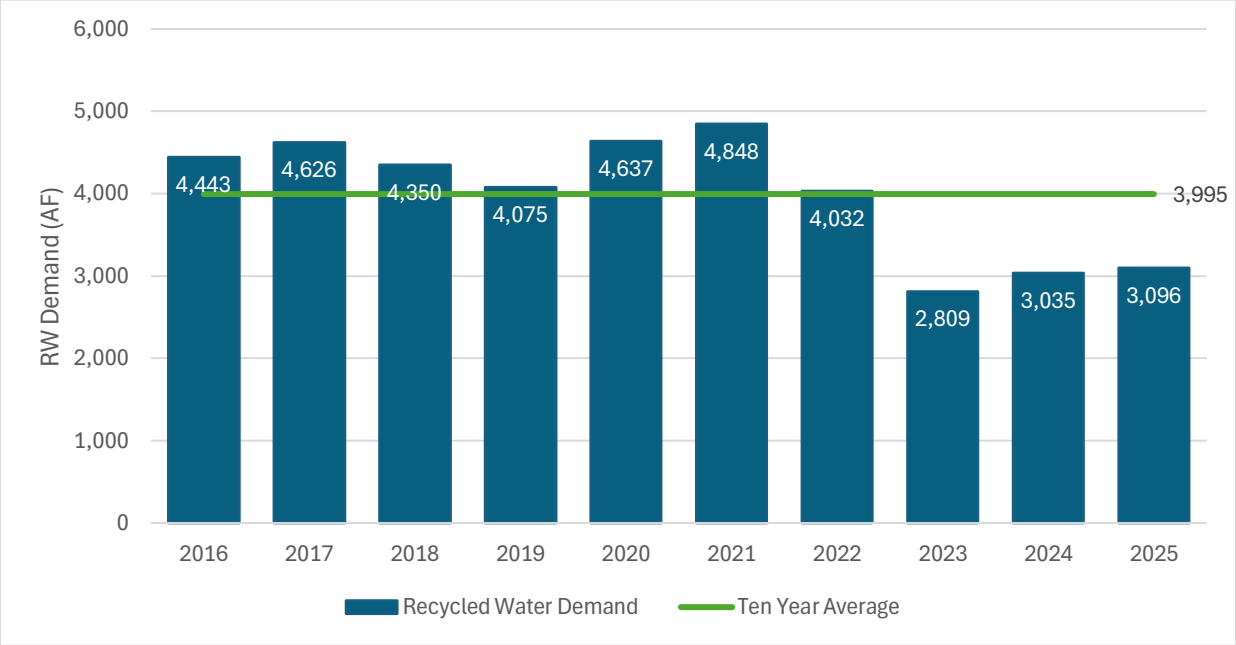
See Figure 6-9 for the seasonal variation of recycled water demands versus recycled water supply. Since the extracted groundwater is treated at the TWRF, the supplemental groundwater volume is accounted for within the recycled water supply from the TWRF volume. The recycled water supply volume includes the water recycled within and outside the LVMWD service area, as reported in Submittal Table 6-3. This difference in supply versus purchased recycled water (demand) is due to internal use, losses, and other non-billed uses.

Figure 6-9: 2025 Recycled Water Demand Seasonal Variation



The recycled water deliveries to LVMWD customers since 2016 are shown in Figure 6-10. The average demand over the past ten years is approximately 3,995 AFY. Since 2021, recycled water uses has declined. LVMWD expects recycled water uses to continue to decline and level off based on conservation measures.

Figure 6-10: Historical Recycled Water Demands



As described further in Chapter 7, LVMWD does not currently plan to expand its recycled water system, anticipates continued declines in recycled water use due to conservation measures, and is implementing infrastructure improvements expected to reduce system losses. To take a conservative approach in

projecting future recycled water demands, LVMWD's projected recycled water use is expected to remain constant at 3,465 AF. LVMWD expects that any new demands that may arise in the future will be for landscape irrigation use.

The "Other" use type represents dual-plumbed customer accounts. Dual-plumbed accounts are served by two separate meters: one for potable water and one for non-potable recycled water. In 2025, there were three dual-plumbed accounts within LVMWD's service area with both a potable water meter and a recycled water meter used for indoor use (i.e. sanitation). These accounts collectively consumed a total of 2.52 AF of recycled water in 2025.

Submittal Table 6-5 provides a comparison of the projections from the 2020 UWMP to the actual use in 2025. While the Regional Water Quality Control Board (RWQCB) has permitted TWRF tertiary treated water for spray landscape irrigation, agriculture, and industrial uses, recycled water uses by LVMWD's customers are almost exclusively for landscape and golf course irrigation within LVMWD's service area.



Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area
Water Code Section 10633 (c),(d),(e)

☐	Check box if recycled water is not used and is not planned for use within the service area of the supplier. The supplier will only complete the column on "Potential Recycled Water Use" and submit an accompanying narrative on the feasibility of that potential recycled water use.
Name(s) of Facility/ies Producing (Treating) the Recycled Water (OPTIONAL) :	
Name of Supplier Operating the Recycled Water Distribution System (OPTIONAL) :	
Volume of Supplemental Water Added in 2025 (OPTIONAL) :	
Source of 2025 Supplemental Water (OPTIONAL) :	

Use Type **Drop down list**	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop down list	Additional Information (as needed)	2025 (AF)	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)	**Potential Recycled Water Use** Volume	**Potential Recycled Water Use** Narrative page number (OPTIONAL)
Add additional rows as needed										
Landscape irrigation (exc golf courses)	Non-Potable		2,901	3,119	3,119	3,119	3,119			
Golf course irrigation	Non-Potable		193	344	344	344	344			
Other (Description Required)	Non-Potable		3	3	3	3	3			
		Subtotal Potable	0	0	0	0	0	0	0	
		Subtotal Non-Potable	3,096	3,465	3,465	3,465	3,465	0	0	
		Total	3,096	3,465	3,465	3,465	3,465	0	0	0

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.
Potential recycled water use: a description of the feasibility of these uses must be included in the narrative.
Multiple Producers: If you have multiple recycled water producers, submit a separate table for each.

NOTES:

Submittal Table 6-5 Retail: 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual

Submittal Table 6-5 Retail: 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual Water Code Section 10633(e)		
☐	Check the box if recycled water was not used in 2025 nor previously projected for use in 2020. Proceed to the next table.	
Use Type Drop Down list	2020 Projection for 2025 (AF)	2025 Actual Use (AF)
Add additional rows as needed		
Industrial use	4,075	2,901
Golf course irrigation	601	193
Other (Description Required)	1	3
Total	4,677	3,096
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3 **Additional Guidance:** See Appendix M, Section M.21 for detailed guidance on this table.		
NOTES:		

6.2.4.5 Action to Encourage and Optimize Future Recycled Water Use

Opportunities for expanding both recycled water supply and demand are limited. Past recycled water planning efforts have already connected nearly all major potential customers, including schools, parks, and golf courses, to the existing recycled water system. Additionally, LVMWD's potable water customer base is primarily residential, as shown in Section 4.2.1, which do not receive recycled water for use. Opportunities for new recycled water use are further restricted because the service area is nearly built out. The amount of recycled water that can be produced is also constrained by wastewater flows from the LVMWD service area. While small developments are expected in future decades, these projects are not anticipated to generate substantial recycled water demands.

The 2014 Recycled Water Master Plan evaluated infrastructure improvements needed to reach remaining small potential customers and to address capital replacement needs. These improvements would support optimization of the existing system but are not expected to yield major increases in recycled water demand or supply.

Methods to expand future recycled water use is shown in Submittal Table 6-6. Currently, the District is emphasizing recycled water conservation during summer months due to limited supply and does not currently plan to expand the recycled water distribution system.



A key component of optimizing recycled water use is maximizing beneficial use during periods when recycled water production exceeds demand. This most commonly occurs from April through November, when the District is prohibited from discharging excess tertiary-treated water to Malibu Creek because of seasonal permit restrictions. Historically, excess supply during these months has presented operational challenges. However, by 2030, the Pure Water Project is anticipated to be operational, enabling excess recycled water to be further treated for indirect potable reuse, specifically surface water supply augmentation at the Las Virgenes Reservoir.

The District and its JPA partner, TWSD, have been undertaking an effort for seasonal storage of recycled water, which entails long-range plans to beneficially use all of the JPA's recycled water and to effectively discontinue discharges to Malibu Creek. In July of 2015, a Plan of Action to discontinue discharges to Malibu Creek was approved by the JPA Board of Directors. As a drought response measure, the temporarily made recycled water available at no cost to residential customers, allowing them to fill sealable containers (up to 300 gallons per visit) at the Rancho Las Virgenes Composting Facility after completing a brief training.

Submittal Table 6-6 Retail: Methods to Encourage Future Recycled Water Use

Submittal Table 6-6 Retail: Methods to Encourage Future Recycled Water Use Water Code Section 10633(f)			
☑	Check the box if the Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in the UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
Add additional rows as needed			
		Total (AF)	0
		Unit Conversion to AF	0
DWR NOTES: **Units of measure** (AF, CCF, MG) MUST remain consistent with units reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3. **The unit conversion to Acre Feet** addresses the Water Code's requirement that this value be provided in acre-feet.			
NOTES:			

6.2.5 Desalinated Water Opportunities

The California UWMP Act requires a discussion of potential opportunities for use of desalinated water (Water Code Section 10631[h]). LVMWD has evaluated opportunities for using desalinated sea water and desalinated brackish groundwater in future supply options. Desalination options considered by LVMWD are described below.

6.2.5.1 Seawater Desalination

Historically, LVMWD did not consider the implementation of a seawater desalination program practical or economically feasible due to the topography of LVMWD's service area not being conducive to pumping desalinated water from the ocean. In the past, LVMWD considered providing financial assistance to other retailers and/or teaming with MWD to provide financial assistance in the construction of other retail water purveyor's seawater desalination facilities in exchange for SWP supplies.

More recently, District has undertaken a Water Supply Diversification Study, scheduled to be completed in early 2026, as part of the District's pursuit to diversify its water supply portfolio. During the drought in 2021-2023, the District had its allocation of the SWP reduced by 74% by MWD. In response, the District is analyzing supplemental water supply alternatives, including ocean desalination as well as potable reuse, groundwater banking, augmentation of the PWP with urban/storm runoff, and water exchanges with other

water utilities. LVMWD has initiated a pilot program in partnership with OceanWell to assess an emerging seawater desalination technology with the potential to reduce traditional cost and environmental constraints. The OceanWell pilot program is testing a submerged desalination system that uses natural hydrostatic pressure to drive reverse osmosis, which may reduce energy demands and eliminate surface brine discharges associated with conventional desalination facilities. While the pilot program is exploratory and not intended to provide near-term supply, it is being used to evaluate the technical feasibility and long-term potential role of this technology as part of a diversified and climate-resilient water supply portfolio.

6.2.5.2 Desalinated Brackish Groundwater

Groundwater from the Thousand Oaks Area basin underlying the LVMWD service area is currently delivered to the TWRF for treatment and subsequent use in the recycled water system. These groundwater supplies are characterized by elevated TDS concentrations, reaching as high as 2,800 mg/l in some areas in addition to high iron and manganese concentrations. Currently, a conversion of this groundwater use for potable supplies is not considered a feasible option. No other opportunities for desalination of local brackish groundwater currently exist.

6.2.6 Water Exchanges and Transfers

UWMPs must describe any existing, planned, or potential future water exchanges and transfers. The information contained in this section informs the water supply volumes incorporated into Submittal Table 6-8 Retail: Water Supplies- 2025 Actual and Submittal Table 6-9 Retail: Water Supplies- Projected.

6.2.6.1 Exchanges

As mentioned in Chapter 2, LVMWD constructed an interconnection with Calleguas Municipal Water District (CMWD) in 2025. This interconnection enables delivery of potable water from one agency to the other if imported water supplies are interrupted and would enable LVMWD to receive water from CMWD to support winter refill of the Las Virgenes Reservoir. Based on a 2024 interconnection capacity analysis, the Calleguas interconnection has an estimated capacity of 12.5 cfs.[5] Furthermore, this additional water serves as an alternative to purchasing water from MWD during summer months. Overall, this interconnection increases the reliability of the potable water systems for both agencies.

In July 2025, LVMWD entered into a water storage and exchange agreement with Irvine Ranch Water District (IRWD) to improve drought-year supply reliability through groundwater banking. Under this program, LVMWD may store up to 6,000 AF of imported water in IRWD's groundwater banking facilities during wetter periods and recover it during dry or critically dry years, subject to agreed-upon exchange ratios, losses, and cost-sharing provisions.[6]

[5] LVMWD Interconnection Capacity Analysis Technical Memorandum, Kennedy Jenks (2024)

[6] Water Storage and Exchange Program with Irvine Ranch Water District
https://d2kbkoa27fdvtw.cloudfront.net/lvmwd/c7fc2420f657917177dfe66b6cb9f4810.pdf

6.2.6.2 Transfers

No transfers are currently planned.

6.2.6.3 Emergency Interties

For emergency circumstances, LVMWD utilizes interconnections with both LADWP and CMWD. The interconnection with LADWP was enabled through an agreement with MWD and LADWP and is mainly used to provide supply during planned and unplanned MWD outages. LADWP provides supply at two distinct connections: one at Kittridge Street and one at Germain Street with maximum capacities of 9,000 gpm and 1,350 gpm, respectively.

6.2.7 Supply From Storage

LVMWD owns and operates the Las Virgenes Reservoir, located in the hills south of Westlake Village. The reservoir was created to provide reliable drinking water delivery to LVMWD customers during peak seasonal demand. In low demand seasons, LVMWD puts water into the reservoir, while in high demand seasons, LVMWD draws upon the reservoir to meet the increased demands.

In addition to serving as a seasonal storage facility, the reservoir provides emergency storage that can be used during imported water outages. Although LVMWD also has an emergency interconnection with LADWP and a new interconnection with CMWD, these cannot solely be relied on to supply the total demand of LVMWD. If imported water sources were unable to deliver water to the District, the Las Virgenes Reservoir would be the only source of supply that LVMWD could count on.

The reservoir is also a “backup” during scheduled shutdowns for maintenance, in times of drought or in the event of earthquakes and other emergencies. Las Virgenes Reservoir played an important role after the 1994 Northridge Earthquake, when service from MWD was interrupted. During interruption, water from the reservoir was distributed to customers in LVMWD’s service area.

This reservoir is filled by imported water and surface water runoff and is withdrawn or replenished as needed. Before water is pumped into the distributions system, the reservoir water is treated at the Westlake Filtration Plant (WFP) to meet State Title 22; Division 4; Chapter 17 and Division of Drinking Water requirements. The WFP can deliver approximately 18 MGD of treated drinking water and typically operates during periods of peak demand in the summer. Water is filtered using diatomaceous earth (DE). The water then goes through primary disinfection, using sodium hypochlorite. Prior to distribution, ammonia is added to produce chloramines as a secondary disinfectant to maintain water quality as it moves through the distribution pipes to consumers. During the Woolsey Fire in November 2018, the WFP and surrounding property were damaged. Since then, with the effort of LVMWD staff, insurance, and FEMA agents, the facilities and surrounding areas have been restored to include water wise and eco-friendly landscaping.

The total capacity of Las Virgenes Reservoir is approximately 9,500 acre-feet. Since its creation, the reservoir has remained at a volume of approximately 7,300 AF, but occasionally drops below 4,000 AF during dry months, and reaches over 9,000 AF when recharge water is purchased from MWD. The total typically annual fluctuation in water volume is several hundred to more than 1,000 AF.



6.2.8 Future Water Projects

LVMWD updated its Integrated Water System Master Plan (IWSMP) in 2014. Analysis of the potable water system resulted in recommended improvements including piping, storage, and pumping improvements to enhance system operations and reliability. With the implementation of the projects outlined in the IWSMP, LVMWD will improve its potable water infrastructure to provide more reliable potable water services, but these projects are not expected to increase supplies or result in new supplies.

The JPA governing the recycled water facilities has determined that no further expansion of the recycled water system will be pursued at this time in order to reserve available treatment and conveyance capacity for the Pure Water Program. As a result of this policy decision, LVMWD does not expect any growth in recycled water demand into the future.

As mentioned previously, the Pure Water Project is being developed by the District in which excess tertiary treated recycled from TWRF, that normally would be disposed of during months of low recycled water demand, will go through further advanced water treatment methods to reach indirect potable reuse standards. This advanced treated water will be blended and stored within the Las Virgenes Reservoir and treated further at the WFP prior to distribution in the potable water system. As summarized in Submittal Table 6-7, the Pure Water Project is expected to provide an additional future water supply of 3,100 AFY.

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs **Water Code Section 10631(f)**							
☐	Check the box if there are no expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Proceed to the next table.						
☐	Check the box if some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.						
	Provide page location of narrative in the UWMP						
Name of Future Projects or Programs	Joint Project with other suppliers?		Additional Description (as needed)	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop Down list	Planned Implementation Year	Planned for Use in Year Type **Drop Down List**	Expected Increase in Water Supply to Supplier (This may be a range) (AF)
	Drop Down List (yes/no)	If Yes, Supplier Name					
Add additional rows as needed							
Pure Water Project	Yes	Triunfo Water and Sanitation District	Las Virgenes Reservoir	Potable	2030	All Year Types	3,100
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3.							
NOTES:							

6.2.9 Summary of Existing and Planned Sources of Water

6.2.9.1 Description of Supplies

As mentioned previously, the District relies on four sources for water supply that have been developed to provide increased water reliability and efficient water use to help meet the water demand of the LVMWD service area into the future. The existing and planned sources of water within the LVMWD service area is as follows:

- During 2025, imported potable water accounted for 75% of total supply (potable and recycled) for LVMWD. The largest imported supply is from MWD. The District also purchases water from Ventura County Waterworks District's (VCWWD) No. 17, VCWWD No. 8, and the City of Los Angeles Department of Water and Power (LADWP). LVMWD has an established connection with Calleguas Municipal Water District (CMWD), but did not purchase any water from this agency in 2025.
- During 2025, recycled water from the TWRF and supplemental imported potable water accounted for 25% of supply to the District
- Groundwater from the Thousand Oaks Area Basin, which is only used to supplement the recycled water supplies.
- Surface water runoff into the Las Virgenes Reservoir.

LVMWD has developed these water resources to provide increased water reliability and efficient water use to help meet the water demand of the LVMWD service area into the future.

6.2.9.2 Quantification of Supplies

Submittal Table 6-8 shows the actual water supplied to the LVMWD system for each supply source in 2025.

Submittal Table 6-8 Retail: Water Supplies- 2025 Actual

Submittal Table 6-8 Retail: Water Supplies — Actual Water Code Section 10631(b)				
Water Supply		**2025**		
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)
Add additional rows as needed				
Purchased or Imported Water	MWD	Potable	15,177	
Purchased or Imported Water	Ventura County Waterworks District No. 8	Potable	14	
Purchased or Imported Water	Ventura County Waterworks District No. 17	Potable	89	
Purchased or Imported Water	City of Los Angeles Department of Water and Power	Potable	2	
Purchased or Imported Water	Calleguas Municipal Water District	Potable	0	
Supply from Storage	Las Virgenes Reservoir	Potable	437	
Recycled Water	TWRF	Non-Potable	4,976	
		Subtotal Potable	15,720	0
		Subtotal Non-Potable	4,976	0
		Total	20,696	0
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3. **Total Entitlement:** e.g. Water Right, Groundwater Allocation, Contracted Amount.				
NOTES:				

Submittal Table 6-9 shows projected supplies for each supply source for 2030 to 2050. Projected supplies are based on the difference in reliable volumes of local supplies and projected demands in Section 4.2.6 yielding a required imported water volume. Imported water projections are based on the information derived from the reliability of MWD's supplies discussed in Section 7.2.

Submittal Table 6-9 Retail: Water Supplies- Projected

Submittal Table 6-9 Retail: Water Supplies — Projected
Water Code Section 10631 (b)

Water Supply			Projected Water Supply (Report to the Extent Practicable)									
			2030		2035		2040		2045		2050 (opt)	
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop Down list	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)
Add additional rows as needed												
Purchased or Imported Water	(a)	Potable	13,125		11,896		11,759		12,631			
Supply from Storage	Pure Water Project - Las Virgenes Reservoir	Potable	3,100		3,100		3,100		3,100			
Recycled Water	(b)	Non-Potable	3,465		3,465		3,465		3,465			
		Subtotal Potable	16,225	0	14,996	0	14,859	0	15,731	0	0	0
		Subtotal Non-Potable	3,465	0	3,465	0	3,465	0	3,465	0	0	0
		Total	19,690	0	18,461	0	18,324	0	19,196	0	0	0

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.
Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.

NOTES:
(a) Purchased or imported water set equal to total potable water demand volumes reported in Submittal Table 4-2.
(b) Recycle water set equal to non-potable water demand volume reported in Submittal Table 4-2 and Submittal Table 6-4.

6.3 Energy Use

Per Water Code 10631.2. (a) an UWMP shall include, to the extent possible, an estimate of energy used to extract, divert, convey, treat, and distribute water supplies. The most recent energy data available used to estimate energy consumption and energy intensity for the LVMWD potable water system is from FY 2018, shown below in Table 6-G. Energy data for FY 2025 was not available at the time of this UWMP.

Table 6-F. LVMWD Potable System Estimated Energy Intensity FY2018

Facility Description	Annual Energy Consumption (kWh)
Agoura Pump Station	24,888
Argos Sectionalizing Valve	192
Box Canyon Pump Station	90
Conduit Pump Station	137,662
Cornell Pump Station	537,933
Equestrian Tank	272
JBR Pump Station	7,896
Jed Smith Pump Station	428,618
Kimberly Pump Station	65,754
Latigo Canyon Tank	36
Lower Oaks Booster	193,412
Lower Oaks Tank	582
LV-2 Pump Station	329,095
Morrison Pump Station	3,549
Morrison Tank	312
Mulwood P/R Station	172
Oakridge Pump Station	17,916
Seminole Pump Station	690,814
Seminole Tank Irrigation	248
Three Springs Pump Station	54,950
Upper Twin Lakes Pump Station	49,619
Upper Twin Lakes Tank	190
Warner Pump Station	551,764
Westlake P/R Station	172
Westlake Filter Plant	404,256
Westlake Pump Station	472,213
Woolsey Tank	212

Facility Description	Annual Energy Consumption (kWh)
Total	**3,972,817**
Energy Intensity	
LVMWD Potable System Energy Consumption (kWh)	3,972,817
LVMWD Potable System Volume (AF)	20,506*
Estimated System Energy Intensity (kWh / AF)	**194 kWh/AF**
Notes: *LVMWD Potable System Volume (AF) is taken from Historical Imported Water Supply shown in Table 6-C for 2018.	

Chapter 7. Water Service Reliability and Drought Risk Assessment

Assessing water service reliability is the fundamental purpose of the UWMP. Reliability reflects a Supplier's ability to meet customer water needs under varying hydrologic, regulatory, and climate conditions. This chapter evaluates the factors that may affect the District's projected supplies and demands.

Chapter 7 synthesizes information from across the UWMP to provide a basis for decisions related to supply management, demand management, and future project development. It also presents the District's Water Service Reliability Assessment (WSRA) and Drought Risk Assessment (DRA), which together evaluate the District's ability to meet demands during normal, single-dry, and multiple-dry year drought conditions, as required by the Water Code.

7.1 Constraints on Water Sources Considerations

As required by the Act, this section identifies and describes constraints on the LVMWD's water supply sources that affect supply availability and reliability under normal, single-dry, multiple-dry year drought conditions. In 2025, the water conditions that the region faces are primarily shaped by hydrologic variability, Sacramento-San Joaquin Bay-Delta (Bay-Delta) operational constraints, and water quality challenges. These constraints are summarized below:

- **Hydrologic Variability:** Over the last decade, dramatic swings in annual hydrologic conditions have impacted water supplies available from the SWP (see Section 6.2.6.1). During the most recent drought from 2020 to 2022, MWD experienced SWP Table A allocations of 20 percent, 5 percent, and 5 percent over the three-year period the lowest three-year sequence of allocations in the history of the SWP. As a result, MWD has been building dry-year storage reserves, water banking, and transfers to help manage the wide swings in SWP allocations.
- **Bay-Delta Operational Constraints:** The SWP water that LVMWD receives from MWD originates from the San Joaquin Bay-Delta (Bay-Delta) and is transferred through the 444-mile-long California Aqueduct. With approximately 30 percent of Southern California's water supply transported across the Bay-Delta, its declining ecosystem has led to reduction in water supply deliveries. Operational constraints will likely continue until a long-term solution to the problems in the Bay-Delta is identified and implemented.
- **Water Quality Challenges**: The majority of the imported water supply to LVMWD travels hundreds of miles from Lake Oroville in the Sierras via the SWP, which is then treated and conveyed to the District by MWD. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and various contaminants, which can contribute to the constituents in MWD's water sources. Contaminants such as algae toxins, PFAS, and constituents of emerging concern have historically had a significant impact on the MWD's water supply conditions; however, to date, Metropolitan has not identified any water quality risks that cannot be mitigated. According to MWD's 2025 UWMP, an increase in the salinity of water resources may be a water quality issue that could potentially affect water management strategies and supply reliability in the future. More information is provided in the LVMWD 2024 Water Quality & Consumer Confidence Report.

7.2 Water Service Reliability Assessment

Water Code Section 10635(a) requires every urban water supplier to assess the reliability of its water service to customers during normal, single-dry, and multiple-dry year drought conditions over a 20-year planning horizon, in five-year increments. The WSRA integrates the demand and supply analysis from Chapter 4 and Chapter 6 to compare total projected water demands and supplies available under these various drought conditions.

It is the goal of LVMWD to deliver a reliable and high-quality water supply for customers, even during dry periods. Based on conservative water supply and demand assumptions over the next 20 years, in combination with conservation of non-essential demand during certain dry years, LVMWD successfully achieves this goal.

7.2.1 WSRA Year-Type Characterization

As described above, the WSRA is evaluated using three year-types to reflect variability in hydrologic conditions and associated effects on water supply availability: normal-year, single-dry year, and five-consecutive-year drought conditions. This section further describes the three year-types and defines the available supply volume during each of these year-types.

7.2.1.1 Types of Years

The three year-types, as defined by the DWR, are described below:

- **Normal Year.** This condition represents the water supplies a Supplier considers available during normal conditions. This could be a single year or averaged range of years that most closely represents the average water supply available to the Supplier. DWR uses the terms average and normal interchangeably when addressing the water year type.
- **Single Dry Year.** The single driest year used for this analysis was 2022. The single dry year is the year-type that represents the lowest water supply available to the Supplier.
- **Five-Consecutive-Year Drought.** The five-consecutive year drought period used for this analysis was 2021 through 2025. This period represents the five-year historical sequence with the lowest water supply for the Supplier.

Optional Submittal Table 7-1 provides the District's characterization of normal, single-dry, and consecutive dry year conditions. This table summarizes the representative base years selected for each required year-type and quantifies the volume of supplies available under those conditions.

Optional Submittal Table 7-1R: Basis of Water Year Data (Reliability Assessment)

***Optional* Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)**			
Year Type	**Base Year** If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2024-2025, use 2025	**Available Supplies if Year Type Repeats**	
		☐	Check the box if quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. **Location:** [insert location from UWMP]
		Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available (AF)	**% of Average Supply**
Average Year	2025	15,720	100%
Single-Dry Year	2022	14,682	93%
Consecutive Dry Years 1st Year	2021 to 2025	20,546	131%
Consecutive Dry Years 2nd Year	2021 to 2025	14,682	93%
Consecutive Dry Years 3rd Year	2021 to 2025	15,288	97%
Consecutive Dry Years 4th Year	2021 to 2025	15,618	99%
Consecutive Dry Years 5th Year	2021 to 2025	15,720	100%
DWR NOTES: Supplier may use multiple versions of Submittal Table 7-1 R if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Submittal Table 7-1 R, in the "Note" section of each submittal table, state that multiple versions of Submittal Table 7-1 R are being used and identify the particular water source that is being reported in each submittal table. **Units of measure (AF, CCF, MG**) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table reports the units of measure reported in Submittal Table 2-3.			
NOTES:			

7.2.1.2 Sources of Water Data

The District's average water year was determined to be 2025 based on review of the Districts historical water supply data and update of the District's average rainfall total for years 2015-2025.

Single- and multiple-dry year projections were based on the lowest single-year and lowest five-consecutive-year potable water supply within the last 10 years. As shown in Table 7-A, 2022 was identified as the single year with the lowest potable water supply over the past 10 years. The period from 2021 through 2025 was identified as the lowest five-consecutive-year potable water supply over the same period. This correlates to the recent drought in 2021 through 2023, during which the District had its allocation of the SWP reduced by 74% by MWD.

As shown in Table 7-A, Las Virgenes Reservoir served as a net source of supply in 2022, 2024, and 2025, meaning withdrawals to meet demand exceeded water delivered to the reservoir during these years. For 2021 and 2023, more water was delivered to the reservoir than was withdrawn. These years are shown as "--" because recharging the reservoir does not reduce the District's total available potable water supply.

Table 7-A: Historical Potable Water Supply by Source (2021–2025)

Supplier	Additional Description	Potable Water Supply for 2021 to 2025 (AFY)				
		2021	2022	2023	2024	2025[(c)]
MWD	(a)	20,428	13,339	15,189	14,365	15,177
VCWWD No. 8	(a)	18	11	18	7	14
VCWWD No. 17	(a)	100	70	81	85	89
LADWP	(a)	0	0	0	0	2
Las Virgenes Reservoir	(b)	--	1,262	--	1,161	437
Total Available Potable Water Supply		20,546	14,682	15,288	15,618	15,720

Notes:

(a) As reported in Table 6-C.
(b) A positive value indicates the reservoir served as a net source of supply, where total withdrawals exceeded total water delivered to the reservoir during the year, as reported in Appendix E. Years where more water was delivered to the reservoir than withdrawn are shown as "--" because recharging the reservoir does not reduce the District's total available potable water supply.
(c) As reported in Submittal Table 6-8.

7.2.2 WSRA Supply and Demand Comparison

This section compares the District's projected water demands with the supplies available under normal, single-dry, and five-consecutive-dry-year conditions, as required by Water Code Section 10635(a). The

WSRA integrates the demand analysis from Chapter 4 and the supply analysis from Chapter 6 to provide a complete picture of the District's long-term water service reliability.

7.2.2.1 Normal Year

Submittal Table 7-2 is used to characterize the District's normal-year water service reliability by comparing projected normal-year supplies to projected normal-year demands over the 20-year planning horizon. This assessment provides the baseline condition for evaluating how reliably the District can meet customer demands in years with typical hydrologic conditions.

For normal year conditions, the following projected supply availability assumptions were applied:

- **Recycled water:** LVMWD's projected recycled water use is expected to remain constant at 3,465 AF due to current customer demand trends and a major pipeline replacement project which will address water losses due to leaks.
- **Supply from Storage:** The Pure Water Project, expected to be operational by 2030, will treat excess recycled wastewater supply to indirect potable reuse standards to augment surface water supply in the Las Virgenes Reservoir. The projected supply from the Pure Water Project of 3,100 AF was assumed to remain constant for years 2030-2050.
- **Imported Water:** Assumes demand projections based on actual 2025 water use per Chapter 4 minus the estimated potable water that the Pure Water Project will supply.

Submittal Table 7-2 Retail: Normal Year Supply and Use Comparison

Submittal Table 7-2 Retail: Normal Year Supply and Use Comparison Water Code Section 10635 (a)					
	2030 (AF)	**2035 (AF)**	**2040 (AF)**	**2045 (AF)**	**2050 (AF)**
Supply totals (autofill from Submittal Table 6-9 R)	19,690	18,461	18,324	19,196	
Use totals (autofill from Submittal Table 4-2 R)	19,690	18,461	18,324	19,196	
Surplus/(shortfall)	0	0	0	0	0
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

7.2.2.2 Single Dry Year

LVMWD's water supplies and demands over the 20-year planning period were analyzed in the event that a single-dry year occurs. Submittal Table 7-3 summarizes the existing and planned supplies available to meet demands during a single-dry year. For single dry year conditions, the following projected supply availability assumptions were applied:

- **Recycled water:** LVMWD's projected recycled water use is expected to remain constant at 3,465 AF due to current customer demand trends and a major pipeline replacement project which will address water losses due to leaks.
- **Supply from Storage:** The projected supply from the Pure Water Project of 3,100 AF was assumed to remain constant for years 2030-2050.
- **Imported Water:** The lowest imported water supply over the last ten years was year 2022 based on historical water supply data. This includes a 74 percent reduction on imported water from MWD. This analysis assumed the 2022 supply will remain constant for years 2030-2050.

Water demand was assumed to remain consistent with the volumes projected in Submittal Table 4-2.

Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison

Submittal Table 7-3 Retail: Single Dry Year Supply and Use Comparison Water Code Section 10635(a)					
	2030 (AF)	**2035 (AF)**	**2040 (AF)**	**2045 (AF)**	**2050 (AF)**
Supply totals	21,247	21,247	21,247	21,247	
Use totals	19,690	18,461	18,324	19,196	
Surplus/(shortfall)	1,556	2,785	2,923	2,050	0
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

7.2.2.3 Five Consecutive Dry Years

The water supplies and demands for the LVMWD service area over the 20-year planning period were also analyzed in the event that a five consecutive dry year event occurs. Water systems are typically more vulnerable to these dry conditions of longer duration because they deplete water storage reserves in local and state reservoirs and in groundwater basins.

Submittal Table 7-4 summarizes the existing and planned supplies available to meet demands during multiple-dry years. For five consecutive year conditions, the following projected supply availability assumptions were applied:

- **Recycled water:** LVMWD's projected recycled water use is expected to remain constant at 3,465 AF due to current customer demand trends and a major pipeline replacement project which will address water losses due to leaks.
- **Supply from Storage:** The projected supply from the Pure Water Project of 3,100 AF was assumed to remain constant for years 2030-2050.
- **Imported Water:** The imported supply during each year of five-consecutive-year period with the lowest imported water supply over the last ten years (2021-2025) was assumed to remain constant for years 2030-2050.

Water demand was assumed to remain consistent with the volumes projected in Submittal Table 4-2.

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Use Comparison Water Code Section 10635(a)						
		2030 (AF)	**2035 (AF)**	**2040 (AF)**	**2045 (AF)**	**2050 (AF)**
First year	Supply totals	27,111	27,111	27,111	27,111	
	Use totals	19,690	18,461	18,324	19,196	
	Surplus/(shortfall)	7,421	8,649	8,787	7,915	0
Second year	Supply totals	21,247	21,247	21,247	21,247	
	Use totals	19,690	18,461	18,324	19,196	
	Surplus/(shortfall)	1,556	2,785	2,923	2,050	0
Third year	Supply totals	21,853	21,853	21,853	21,853	
	Use totals	19,690	18,461	18,324	19,196	
	Surplus/(shortfall)	2,162	3,391	3,529	2,656	0
Fourth year	Supply totals	22,183	22,183	22,183	22,183	
	Use totals	19,690	18,461	18,324	19,196	
	Surplus/(shortfall)	2,493	3,721	3,859	2,987	0
Fifth year	Supply totals	22,285	22,285	22,285	22,285	
	Use totals	19,690	18,461	18,324	19,196	
	Surplus/(shortfall)	2,595	3,824	3,962	3,089	0
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.						
NOTES:						

7.2.3 WSRA Description of Management Tools and Options

This section summarizes the water management tools and options that are currently implemented, or planned for implementation, to support water service reliability and maximize the use of local water resources while minimizing reliance on imported supplies.

LVMWD attends regular meetings with MWD staff. MWD will continue their ongoing Water Surplus and Drought Management (WSDM) supply demand tracking process, which is compiled into a monthly Board of Directors reporting. LVMWD will continue to track MWD reporting tools.

MWD anticipates presenting a completed Annual Assessment by June of each year. This assessment can trigger any recommended shortage stage. LVMWD staff uses the information provided by MWD to prepare the DWR Annual Water Supply and Demand Assessment, due annually by July 1st, as well as

the MWD Local Production Survey and Local Supply Inventory, due annually on June 20. The DWR report evaluates comprehensive supply and demand, including imported water, reclaimed water, and demand by use type, to identify potential shortages and corresponding actions. The MWD report is used to develop their UWMP and focus solely on local production, such as groundwater, reclaimed water, and forecasted Pure Water Project yields.

As described in Section 1.4.1.2, the District recently had its allocation from MWD reduced by 74% during the 2021-2023 drought. In response, the District is undertaking a Water Supply Diversification Study, scheduled to be completed in early 2026, as part of the District's pursuit to diversify its water supply portfolio. Alternative water supplies currently being analyzed by the Study include ocean desalination, potable reuse, groundwater banking, augmentation of the Pure Water Project with urban or storm runoff, and water exchanges with water utilities other than MWD.

7.3 Drought Risk Assessment

The DRA evaluates water shortage risk based on the driest five-consecutive-year historic hydrologic sequence and assumes the drought period begins in the year immediately following adoption of the UWMP. In accordance with Water Code Sections 10612 and 10635(b), the DRA assesses the reliability of each water supply source and compares total available water supplies to projected water use during the drought period.

7.3.1 DRA Data, Methods, and Basis for Water Shortage Conditions

The DWR encourages suppliers to use the same five-year sequence for both their WSRA and DRA. Therefore, the following supply availability assumptions were applied:

- **Recycled water:** LVMWD's projected recycled water use is expected to remain constant at 3,465 AF due to current customer demand trends and a major pipeline replacement project which will address water losses due to leaks.
- **Supply from Storage:** Since the Pure Water Project is not projected to become operational until 2030, the projected supply from the Pure Water Project of 3,100 AF was only assumed available for year 2030.
- **Imported Water:** The imported supply during each year of five-consecutive-year period with the lowest imported water supply over the last ten years (2021-2025) was assumed to remain the same for years 2026-2030.

Water demand was assumed to remain consistent with the volumes projected in Submittal Table 4-2.

7.3.2 DRA Individual Water Source Reliability

This section evaluates the reliability of each water supply source during the five-consecutive-year drought scenario assessed in the DRA. For each drought year, the expected reliability of individual water sources are characterized to describe anticipated availability under prolonged dry conditions.

7.3.2.1 Non-Potable Water Supply

Due to high levels of iron and manganese found in the groundwater, groundwater extraction from the Thousand Oaks Area Groundwater Basin is solely used to augment recycled water supplies. Based on the current conditions of the Thousand Oaks Area Basin, the low-priority rating by DWR, and historically low levels of pumping by LVMWD, groundwater supplies are anticipated to be reliably available.

LVMWD has historically aggressively pursued the development of a recycled water system and optimizations for reuse in its service area. The District requires all non-residential landscaping located along the District's recycled water distribution main lines to be designed or converted to utilize recycled water for landscape irrigation. Recycled water master planning efforts began in the 1980s with concepts for a system to serve the region. Master Plans for the existing recycled water system were prepared in 1985, 1988, 1999, 2007, and most recently updated in 2014. Past recycled water planning efforts have now successfully connected to virtually all schools, parks, and golf courses within the service area to the existing recycled water system. The District has now expanded efforts to encourage conservation of recycled water uses. Efforts include modified rates, imposing penalties for exceedance of water budget, installing advanced meters, and enhancing outreach regarding conservation with existing recycled water customers.

7.3.2.2 Potable Water Supply

As discussed in Chapter 6, LVMWD's total 2025 potable demand was entirely supplied by imported potable water. Historically, the Las Virgenes Reservoir has been used to supplement supply during dry years. While the District also purchases water from VCWWD No. 17, VCWWD No. 8, LADWP, and CMWD, the largest imported supply is from MWD.

Over the last five years, imported supplies from agencies other than MWD account for less than three percent of LVMWD's potable water supply. Interconnections with these agencies generally provide potable water generally to two small areas in the hills west of the San Fernando Valley, Woolsey Canyon and Box Canyon, which include the cities of West Hills and Chatsworth. These areas are geographically isolated, and currently not connected to the rest of the LVMWD distribution system. It should be noted that LVMWD did not purchase any water from LADWP and CMWD in 2025.

MWD's supply capability and projected demands are presented in Table 7-A though Table 7-C. In MWD's 2025 UWMP, dated December 2025, MWD estimated supply capability and projected demands for a normal year, a single dry-year, and for five consecutive years.

Projected supply surpluses for MWD, based on the capability of current programs, range from 13% to 60% of projected supply. With the inclusion of supplies under development, potential surpluses also range from 13% to 60% of projected supply. Tables 7-A through 7-C show that the region can provide reliable water supplies under both the single driest year and the multiple dry years.

Table 7-B: MWD Normal Year Supply Capability and Projected Demands (1922-2021 Hydrology)

Forecast Year	2030	2035	2040	2045	2050
Capability of Current Programs	3,762,000	3,720,000	3,664,000	3,624,000	3,718,000
Demands	1,503,000	1,516,000	1,544,000	1,563,000	1,581,000
Surplus	2,259,000	2,204,000	2,120,000	2,061,000	2,137,000
Percent Surplus	60.05%	59.25%	57.86%	56.87%	57.48%
Programs Under Development	0	0	0	0	0
Potential Surplus	2,259,000	2,204,000	2,120,000	2,061,000	2,137,000
Percent Potential Surplus	60.05%	59.25%	57.86%	56.87%	57.48%

Table 7-C: MWD Single Dry Year Supply Capability and Projected Demands (1977 Hydrology)

Forecast Year	2030	2035	2040	2045	2050
Capability of Current Programs	2,701,000	2,675,000	2,631,000	2,605,000	2,699,000
Demands	1,634,000	1,653,000	1,679,000	1,697,000	1,714,000
Surplus	1,067,000	1,022,000	952,000	908,000	985,000
Percent Surplus	39.50%	38.21%	36.18%	34.86%	36.49%
Programs Under Development	0	0	0	0	0
Potential Surplus	1,067,000	1,022,000	952,000	908,000	985,000
Percent Potential Surplus	39.50%	38.21%	36.18%	34.86%	36.49%

Table 7-D: MWD Drought Lasting Five Consecutive Water Years Supply Capability and Projected Demands (1922-2017 Hydrology)

Forecast Year	2030	2035	2040	2045	2050
Capability of Current Programs	2,082,400	2,118,100	2,043,900	2,003,400	1,989,900
Demands	1,602,000	1,668,000	1,689,000	1,712,000	1,731,000
Surplus	480,400	450,100	354,900	291,400	258,900
Percent Surplus	23.07%	21.25%	17.36%	14.55%	13.01%
Programs Under Development	0	0	0	0	0
Potential Surplus	480,400	450,100	354,900	291,400	258,900
Percent Potential Surplus	23.07%	21.25%	17.36%	14.55%	13.01%

It is important to note that under some conditions, MWD may choose to implement the Water Supply Allocation Plan (WSAP) to preserve storage reserves for a future year, instead of using the full supply capability. This can result in impacts on the retail level even under conditions where there may be adequate supply capabilities to meet demands. MWD's likelihood of having adequate supply capability to meet projected demands, without implementing the WSAP, is dependent on its storage resources.

Per the MWD's 2025 UWMP Update, MWD's core water supplies include estimated water supplies from the Colorado River and the SWP for the current year. Imported core supplies vary from year to year and are influenced by annual weather and hydrology, as well as demand by other higher priority users and operational and regulatory factors.

Figure 7-1: 2025 UWMP Core Water Supplies

Source	Core Supply
Colorado River	Colorado River Basic Apportionment
	Higher Priority Water Use Adjustment to Colorado River Basic Apportionment
	IID/MWD Conservation Program
	PVID Fallowing Program (minimum)
	Bard Water District Seasonal Fallowing Program
	Quechan Seasonal Fallowing Program
	Quechan Diversion Forbearance Program
	Lower Colorado Water Supply Project
	Exchange with SDCWA (SDCWA/IID Transfer and Coachella & All-American Canal Lining)
	Exchange with the United States (Coachella Canal Lining)
State Water Project	MWD SWP Table A
	SWP Article 21 Interruptible Supplies
	SWP Port Hueneme Lease of Ventura Table A
	Desert Water Agency/Coachella Valley District/Metropolitan Water Exchange and Advance Delivery Programs
In-Region	San Gabriel Valley Municipal Water District Program

MWD has invested significantly in the development of a diverse resource mix to ensure continued reliability of its supplies. In addition, MWD has undertaken numerous planning initiatives, including an update to the Integrated Water Resources Plan, the Water Surplus and Drought Management Plan, the Water Supply Allocation Plan, and the Seismic Risk Assessment and Mitigation Plan.

The Las Virgenes Reservoir also serves a "backup" during scheduled shutdowns for maintenance, in times of drought, or in the event of earthquakes and other emergencies. Las Virgenes Reservoir played an important role after the 1994 Northridge Earthquake, when service from MWD was interrupted. During interruption, water from the reservoir was distributed to customers in LVMWD's service area. This reservoir assures reliable drinking water delivery to LVMWD customers during peak seasonal demand and times of drought or emergency. Depending on the starting reservoir storage level, the Las Virgenes Reservoir can supply a maximum of 4,500 acre-feet or less, equating to around 3 months demand.

As discussed in Chapter 6, LVMWD also entered into a water storage and exchange agreement with IRWD in 2025. Under this program, LVMWD may store imported water in IRWD's groundwater banking

facilities during wetter periods and recover it during dry or critically dry years. According to this agreement, this program can supply up to 6,000 AF for delivery in dry water years. [7]

The Pure Water Project is anticipated to be operational by 2030, in which tertiary treated recycled from TWRF, that normally would be disposed of during months of low recycled water demand, will go through further advanced water treatment methods to reach indirect potable reuse standards. This advanced treated water will be blended and stored within the Las Virgenes Reservoir, increasing the reservoir's water supply reliability.

7.3.3 DRA Total Water Supply and Use Comparison

This Section includes a comparison of total water supplies and projected water use for each year of a five-consecutive-year drought scenario that begins in 2026. See Submittal Table 7-5 for the total water supply and use comparison for the DRA.

Since the Indoor Residential Water Use Standard established under SB 1157 (2022) decreases from 47 gallons per capita per day (gpcd) to 42 gpcd effective January 1, 2030 (see Section 4.2.5.2), interim demand reductions were incorporated into the planning analysis for years 2027 through 2029. Specifically, Level 1 response actions from the Water Shortage Contingency Plan (WSCP) were applied, including an assumed 20 percent reduction in total potable water demand during that period. See Section 8.4 for further details regarding LVMWD's WSCP response actions.

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment Water Code Section 10635(b)(3)	
2026	**Total**
Total Water Use (AF)	19,395
Total Supplies (AF)	24,011
Surplus/Shortfall w/o WSCP Action	4,616
2027	**Total**
Total Water Use (AF)	19,577
Total Supplies (AF)	18,147
Surplus/Shortfall w/o WSCP Action	(1,430)
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	3,222
Revised Surplus/(shortfall)	1,792
2028	**Total**
Total Water Use (AF)	19,762

[7] Water Storage and Exchange Program with Irvine Ranch Water District
https://d2kbkoa27fdvtw.cloudfront.net/lvmwd/c7fc2420f657917177dfe66b6cb9f4810.pdf

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment Water Code Section 10635(b)(3)	
Total Supplies (AF)	18,753
Surplus/Shortfall w/o WSCP Action	(1,009)
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	3,259
Revised Surplus/(shortfall)	2,250
2029	**Total**
Total Water Use (AF)	19,949
Total Supplies (AF)	19,083
Surplus/Shortfall w/o WSCP Action	(866)
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	3,297
Revised Surplus/(shortfall)	2,431
2030	**Total**
Total Water Use (AF)	19,690
Total Supplies (AF)	22,285
Surplus/Shortfall w/o WSCP Action	2,595
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	
NOTES:	

Chapter 8. Water Shortage Contingency Plan

As part of its UWMP, Water Code Section 10632 requires Suppliers to prepare and adopt a Water Shortage Contingency Plan (WSCP). The WSCP aligns with the MWD WSCP to ensure continuity, collaboration, and efficiency. The WSCP also draws upon lessons learned from the 2012-2016 drought, California's driest period on record, as well as the more recent drought 2021-2023. The following discussion presents the various stages and basis for implementation.

8.1 Water Supply Reliability Analysis

The primary source of water supply for LVMWD has been water imported from MWD. The imported water is primarily treated water from the Sacramento-San Joaquin River Delta in Northern California, which is conveyed via State Water Project (SWP) facilities. In 2025, LVMWD supplied a total of 15,714 AF from imported water purchased from MWD, which was 84 percent of the total water supply including recycled water. Groundwater and recycled water are discussed further in Chapter 4. Additionally, seismic risks are summarized herein and described in the districts' Hazard Mitigation Plan (Appendix F)

8.2 Annual Water Supply and Demand Assessment Procedures

As an urban water supplier, LVMWD must prepare and submit an Annual Water Supply and Demand Assessment. The following information provides the procedures LVMWD will undertake to complete and approve the Annual Assessment.

8.2.1 Decision-Making Process

LVMWD will prepare their Annual Assessment to be presented to their Board of Directors for approval and submission to DWR by July 1. This presentation will also include appropriate triggers for recommendations regarding specific shortage response actions as a result of the assessment.

8.2.2 Data and Methodologies

The following provides a description of the key data inputs and methodologies that will be used in the Annual Assessment.

Current Year Unconstrained Customer Demand

LVMWD will need to evaluate expected water needs for the coming year or "unconstrained demand" per the Water Code Section 10632. It is anticipated that customer water needs will be evaluated based on billing records as used in Chapter 4 analysis in combination with weather, prior year conditions, and other factors.

Current Year Available Supply

LVMWD will evaluate anticipated supplies for the current year, while anticipating that the following year will be dry. LVMWD will continue to review MWD's planned water supplies for making decisions involving water shortage responses.

Infrastructure Consideration

Throughout each year, LVMWD and MWD regularly carry out preventive and corrective maintenance of facilities. MWD plans and performs shutdowns to inspect and repair pipelines and facilities and support capital improvement projects. These shutdowns involve a high level of planning and coordination within MWD, as well as with member agencies, other affected organizations, contractors, and the community. For planned MWD outages, water for LVMWD is either provided through the Las Virgenes Reservoir and Westlake Filtration Plant, LADWP Interconnections (Kittridge and Germain), or a combination of both.

Evaluation Criteria

LVMWD will utilize the MWD Annual Assessment process and monthly WSDM supply-demand reporting to evaluate for their annual assessment for imported water supplies. LVMWD and MWD will monitor emerging supply and demand conditions throughout the year and take appropriate actions consistent with the flexibility and adaptability inherent to the Water Shortage Contingency Plan.

Water Supply

Based on MWD being the primary water source for LVMWD, the district will rely upon MWD's evaluation of their water supply sources as part of their annual water supply and demand assessment.

8.3 Six Standard Water Shortage Stages

As required by CWC §10632(a)(3)(A), the WSCP is framed around six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other potential emergency events.

In 2016, LVMWD created a WSCP that established four stages of escalating response to a water shortage caused by droughts and/or emergencies. Each stage may be triggered by a declaration from federal or state authorities, MWD, or LVMWD to address events that result in a water shortage. The table below cross-references LVMWD's shortage levels with the six standard UWMP shortage levels.

Submittal Table 8-1: Cross-reference for Standard vs Supplier Shortage Levels CWC 10632(a)(3)(B)

Submittal Table 8-1: Cross-reference for Standard vs Supplier Shortage Levels Water Code Section 10632(a)(3)(B)				
	Check the box if the Supplier uses the Standard six levels of water shortage. Proceed to the next table.			
Standard Shortage Levels	**Percent Shortage Range**		**Suppliers Shortage Levels**	**Percent Shortage Range**
1	Up to 10%	→	1 Water Shortage Alert	0 to 10%
2	Up to 20%	→	2 Water Shortage Warning	10 to 20%
3	Up to 30%	→	3 Water Shortage Emergency	20 to 50%
4	Up to 40%	→		
5	Up to 50%	→		
6	>50%	→	4 Critical Water Shortage Emergency	over 50%
NOTES:				

8.4 Shortage Response Actions

The following section specifies the types of shortage response actions that may be undertaken before and during a shortage declaration. LVMWD will implement response actions in support of, and in conjunction with actions taken or requirements dictated by MWD. The table below provides a summary of the shortage stage and the suite of response actions MWD and LVMWD may take.

Table 8-A: Shortage Stages and Response Actions

Shortage Stage	Shortage Percentage		Response Actions	
		Trigger	**Actions**	**Shortage Met**
1	Up to 10%	• Federal, state or local disaster declaration that may impact water supplies • State or MWD declaration due to drought or system maintenance • LVMWD Board of Directors determination • Unplanned LVMWD water system maintenance	**MWD** • Take from storage • Execute Flexible Supplies • Implement Water Supply Allocation Plan (WSAP) **LVMWD** • Take from storage • Initiate public information campaign with large water users, cities, and County • Commence enforcement of conservation measures	**MWD** • 0 to 100% met by storage • 0 to 100% met by Flexible Supplies • 0 to 50% of total base demand met by WSAP implementation **LVMWD** • 0 to 100% met by short-term storage (3 months max.) and/or Distant Groundwater Banking • 0 to 20% met by demand reduction • 0 to 50% met by water shortage allocation and/or storage
2	Up to 20%	See Stage 1 triggers. The difference is the severity and/or maintenance repair time.	**MWD** • Take from storage • Execute Flexible Supplies • Implement Water Supply Allocation Plan **LVMWD** • Take from storage • Initiate public information campaign with large water users, cities, and County • Commence enforcement of conservation measures	**MWD** • 0 to 100% met by storage • 0 to 100% met by Flexible Supplies • 0 to 50% of total base demand met by WSAP implementation **LVMWD** • 0 to 100% met by short-term storage (3 months max.) and/or Distant Groundwater Banking • 0 to 20% met by demand reduction • 0 to 50% met by water shortage allocation and/or storage

Shortage Stage	Shortage Percentage		Response Actions	
		Trigger	**Actions**	**Shortage Met**
3	Up to 50%	• Federal, state or local disaster declaration that may impact water supplies • State or MWD determination due to drought or significant system failure • State outdoor irrigation restriction; and/or • MWD Water Supply Allocation Plan (5-50% of baseline allocation) • LVMWD Board of Directors determination • Unplanned LVMWD water system failure or emergency (Westlake Filtration Plant, Dam and/or Backbone System)	**MWD** • Take from storage • Execute Flexible Supplies • Implement Water Supply Allocation Plan **LVMWD** • Take from storage • Intensify public information campaign • Expand enforcement of conservation measures • Implement State and MWD required reductions • Install flow restrictors on meters as necessary (increase the rate of flow restrictor installations based on severity of shortage and available staff resources) • Provide regular media, city councils, and County briefings • Activate emergency connections with mutual aid agencies	**MWD** • 0 to 100% met by storage • 0 to 100% met by Flexible Supplies • 0 to 50% of total base demand met by WSAP implementation **LVMWD** • 0 to 100% met by short-term storage (3 months max.) and/or Distant Groundwater Banking • 0 to 20% met by demand reduction • 0 to 50% met by water shortage allocation and/or storage
4	>50%	• See Stage 3 triggers • Sacramento to Delta/SWP failure • Natural or human-caused catastrophe disrupting delivery of water to, or within the service area • Severe LVMWD water system failure (Westlake Filtration Plant, Dam and Backbone System)	**MWD** • Take from storage • Execute Flexible Supplies • Implement Water Supply Allocation Plan **LVMWD** • Take from storage • Activate Emergency Operations Center and implement crisis plan • Implement State/MWD required reductions • Install flow restrictors on meters as necessary (increase the rate of flow	**MWD** • 0 to 100% met by storage • 0 to 100% met by Flexible Supplies • 0 to 50% of total base demand met by WSAP implementation **LVMWD** • 0 to 100% met by short-term storage (3 months max.) and/or Distant Groundwater Banking • 0 to 20% met by demand reduction • 0 to 50% met by water shortage allocation and/or storage

Shortage Stage	Shortage Percentage		Response Actions	
		Trigger	**Actions**	**Shortage Met**
			restrictor installations based on severity of shortage and available staff resources) • Terminate potable water supplement to the recycled water system • Recall all temporary meters and activate water fill stations	

8.4.1 Supply Augmentation

LVMWD has the following supply augmentation measures as listed in Submittal Table 8-2 and described below.

Submittal Table 8-2: Retail: Supply Augmentation and Other Actions

Submittal Table 8-2 Retail: Supply Augmentation and Other Actions Water Code Section 10632(a)(4)(A),(C) and (E)				
No	Is the Supplier completing this table using the standard six levels? (yes/no)			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)	
Add additional rows as needed				
3 and 4	Stored Emergency Supply	Percentage	0 to 100%	Short-term action (3 month max.) from Las Virgenes Reservoir
1-4	Stored Supply during WSAP period via Distant Groundwater Banking	Percentage	0 to 100%	850 AF/YR for up to 3 years*
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.				
NOTES: *amount may increase if LVMWD purchases more groundwater from Irvine Ranch Water District (IRWD) or others.				

Stored Emergency Supply

LVMWD can supply up to 100 percent of their customer demands from Las Virgenes Reservoir. However, this is a short-term action (a maximum of 3 months) and would only be used during a Stage 3 or 4 shortage. Groundwater that is stored through Irvine Ranch Water District in the Central Valley or with others may be used anytime MWD activates the WSAP.

8.4.2 Demand Reduction

LVMWD implements many conservation programs and initiatives annually including public outreach. LVMWD's demand reduction actions are listed in Submittal Table 8-3: Retail: Demand Reduction Actions and discussed in more detail below. In the absence of any water shortage (Shortage level 0), LVMWD maintains a number of water conservation measures. As described in subsequent sections, enforcement of these measures is scaled up as severity increases. Taken collectively, LVMWD expects these demand reduction measures to reduce the shortage gap by 0 to 20 percent.

Submittal Table 8-3: Retail: Demand Reduction Actions

No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap? Volume or Percentage Drop down	How much is this going to reduce the shortage gap? Shortage Gap Reduction Value (May be a range) (AF)	Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
0 thru 4	Landscape - Limit landscape irrigation to specific times	Percentage	0-20%*	Between hours of 10 AM and 5 PM	Yes
0 thru 4	Landscape - Restrict or prohibit runoff from irrigation	Percentage	0-20%*		Yes
0 thru 4	Landscape - Prohibit certain types of landscape irrigation	Percentage	0-20%*	Irrigation may not occur during periods of rain or in the 48 hours following measurable rainfall	Yes
0 thru 4	Other - Prohibit use of potable water for washing impervious surfaces	Percentage	0-20%*		Yes
0 thru 4	Other - Require hoses equipped with shut off nozzle	Percentage	0-20%*	Landscape hose equipped with shut off nozzle required for car washing	Yes
1 thru 4	Implement or Modify Drought Rate Structure or Surcharge	Percentage	0-20%*		Yes
4	Landscape - Prohibit all landscape irrigation	Percentage	0-20%*	Outdoor water use only allowed for public health and safety purposes	Yes
0-4	CII - Other CII restriction or prohibition	Percentage	0-20%*	Install flow restriction devices as needed	Yes
0 thru 4	CII - Restaurants may only serve water upon request	Percentage	0-20%*		Yes
0 thru 4	CII - Lodging establishment must offer opt out of linen service	Percentage	0-20%*		Yes
4	Other water feature or swimming pool restriction	Percentage	0-20%*	Restrict use of water features, filling swimming pools, outdoor water use only allowed for public health and safety purposes	Yes
1 thru 4	Expand Public Information Campaign	Percentage	0-20%*	Water Conservation Programs	No
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES: * When taken collectively, the demand reduction measures will reduce the shortage gap up to 20%; these have not been assessed on an individual basis.					

Landscape Demand Reductions

The LVMWD Board has adopted the following water conservation measures as it relates to landscape demand reduction:

- Irrigation not allowed between the hours of 10 a.m. and 5 p.m.
- Irrigation may not occur during periods of rain or in the 48 hours following measurable rainfall.
- Irrigation may not run off the property into streets, gutters or onto adjacent properties.
- Using potable water to wash down sidewalks, parking areas and driveways is not permitted.
- A shut off nozzle is required on hoses used for home car washing.
- Fountains or water features must use a recirculating system.

These actions listed above are water use restrictions as of December 2025. All of these measures would be in effect under Stages 0 through 4. As the water shortage increases, so would LVMWD patrol and enforcement of these measures.

Additionally, under a Stage 3 shortage, irrigation may be limited to the indoor gpcd requirement plus one day per week and the customer outdoor water budgets used for billing purposes may be reduced 50%. There is one landscape measure that only applies to Stage 4 though and that is the prohibition of all landscape water use except in the case of public health and safety purposes. Finally, as a last resort, the District pioneered the use of flow restrictors for particularly egregious water users as part of stepping up enforcement actions. Flow restrictors are installed on water services for the most egregious water users at all times, even when a water shortage stage has not been activated; however, the quantity of restrictors installed may increase depending on the severity of the water shortage and available staff resources.

Commercial Demand Reductions

The LVMWD Board has adopted the following water conservation measures as it relates to commercial demand reduction:

- Hotels and motels must give multi-night guests the option to retain towels and linens during their stay.
- Restaurants may only serve water upon request.

All of these measures would be in effect under Stages 1-4. As the water shortage increases, so would LVMWD patrol and enforcement of these measures.

Special Water Features Demand Reductions

The LVMWD Board has adopted a water conservation measure as it relates to special water features demand reductions: terminate filling or refilling of pools and fountains, which applies to Stage 4 Shortage Levels.

Other Demand Reductions

LVMWD's primary method for demand reduction is through a variety of water conservation programs such as the Irrigation Efficiency Retrofit Program[8] (which promotes weather-based irrigation controllers), Landscape Transformation Program[9] and Design Assistance, Native Garden kits, annual education workshops, and the Rain Barrel Discount Program. Weather-based irrigation controllers reduce water use by automatically adjusting irrigation schedules based on real-time weather data. Landscape transformation encourages customers to transition from water-intensive grass to climate appropriate landscaping, and rain barrels help store water from wet periods for use during dry periods. The District also leverages its Advanced Metering Infrastructure (AMI) and the Watersmart customer water use portal which can also help reduce demand. Based on the LVMWD Comprehensive Water Conservation Plan Fiscal Years 2022-2024, LVMWD was able to report water savings of 30 percent when compared to water usages in 2020. More information on these programs can be found in UWMP Chapter 9 or on the District's website.

2023 Resource Conservation Achievements

- 2023 achieved 30% overall water conservation (2023 vs. 2020)
- 2023 achieved 14% recycled water conservation (2023 v. 2020)
- Installed 493 Rachio irrigation controllers
- Hosted nine workshops attended by 203 unique (non-repeat) customers
- Distributed 149 native plant kits to participating residents
- Launched the Irrigation Efficiency Retrofit Program (75 customer applications)
- Issued 117 rain barrel vouchers
- Awarded Prop.1, Round 2 IRWM Grant ($123,800)
- Awarded DWR Urban Community Drought Relief Grant Funding – IEUA Partnership ($504,771)
- Launched the Water Hero Customer Recognition Program

8.4.3 Operational Changes

During all water shortage stages, LVMWD would decrease line flushing to the extent possible without triggering water quality issues to reduce water demand. In addition, LVMWD would implement the following under a Stage 4 Critical Water Shortage Emergency:

- Terminate potable water supplement to the recycled water system
- Install more flow restrictors on meters as necessary for the most wasteful water users
- Recall all temporary meters and active water fill stations

[8] https://www.lvmwd.gov/irrigation-retrofit

[9] https://yoursmartyard.org/lvmwd-yardzen

8.4.4 Additional Mandatory Restrictions

LVMWD does not have additional mandatory restrictions outside of those listed in the Demand Reduction Measures section.

8.4.5 Emergency Response Plan

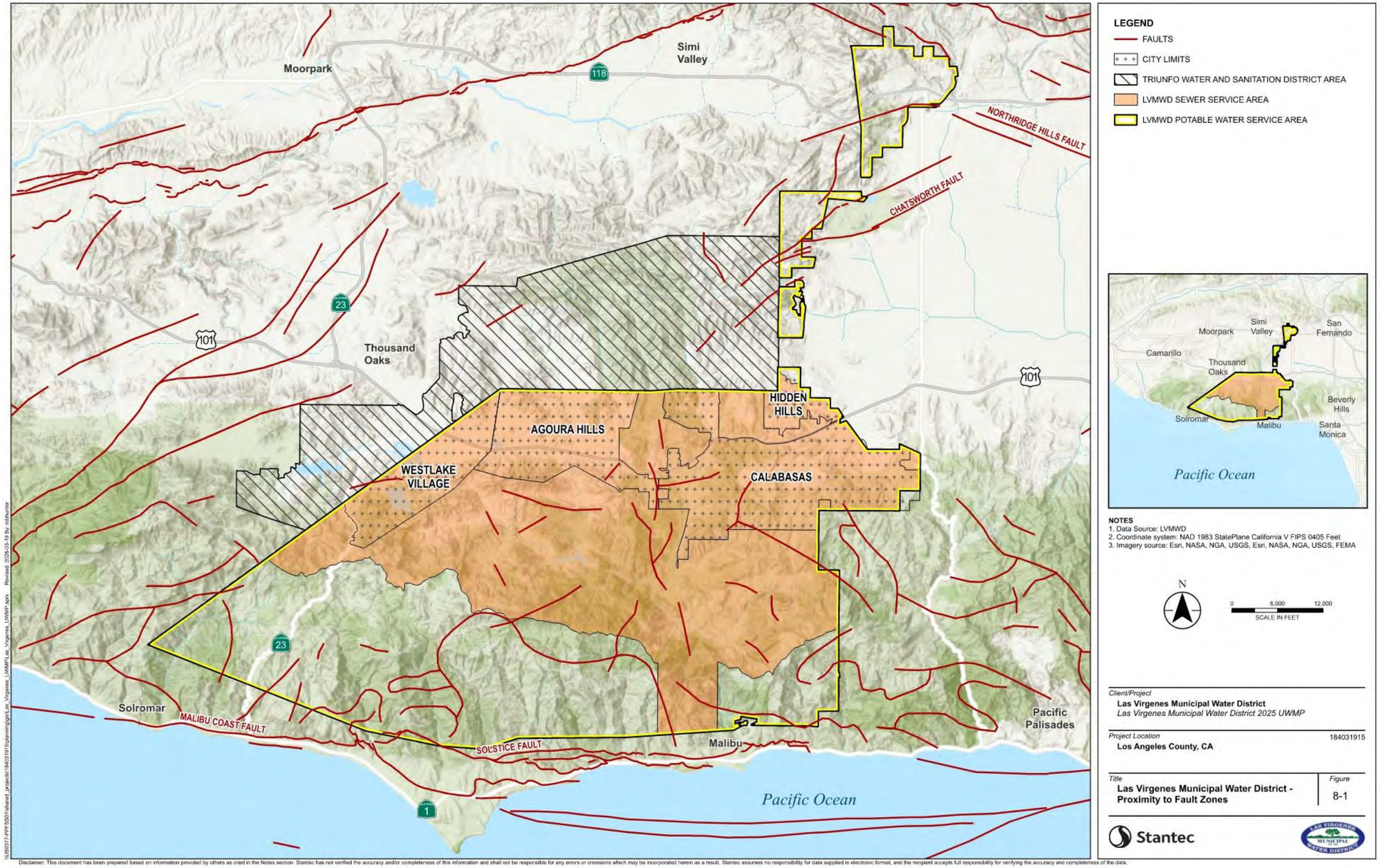
The Emergency Response Plan (ERP) defines an emergency and has plans, procedures, policies, and agreements for various emergencies. These include water contamination, power outage, earthquake, and water supply interruption, among others and may trigger a Level 4 Water Shortage, in addition, MWD is the primary contact during a major emergency throughout Southern California. If the MWD interties are not available, LVMWD has two interties with LADWP that can be used in emergency situations as well as a recently completed intertie with Calleguas Municipal Water District.

8.4.6 Seismic Risk Assessment and Mitigation Plan

The Malibu Coast fault system includes the Malibu Coast, Santa Monica, and Hollywood faults. The system begins in the Hollywood area, extends along the southern base of the Santa Monica Mountains, and passes offshore a few miles west of Point Dume.

The Malibu Coast fault system runs south of the LVMWD service area while the Northridge Hills fault and the Chatsworth fault run north of the LVMWD service area as shown in Figure 8-1: Being in close proximity to the Malibu Coast fault system, the Northridge Hills fault, and the Chatsworth fault makes LVMWD's facilities prone to liquefaction, surface faulting, and landslides. This is further described in the 2025 Las Virgenes Municipal Water Hazard Mitigation Plan (see UWMP Appendix F).

Figure 8-1: LVMWD Proximity to Fault Zones



Although LVMWD has a connection to the LADWP system and an intertie with Calleguas, which can be used during MWD outages, following a major earthquake, the Las Virgenes Reservoir may be the only source of supply that LVMWD could rely on.

A catastrophic event, such as an earthquake damaging the State Water Project (SWP) aqueducts that transport imported water supplies could result in an unplanned interruption in MWD supplies, which LVMWD depends on. In recognition of the possibility of such unplanned events, MWD has invested in emergency storage facilities located within and outside of the region to facilitate continued supplies. In the event of a SWP outage, water stored in surface water reservoirs and groundwater basins under MWD's emergency storage program would be made available to meet demands by MWD member agencies, which includes LVMWD. In the case of extreme water shortages within the MWD service area, MWD will implement the Water Supply Allocation Plan (WSAP). The WSAP provides methodologies for allocating supply to each of MWD's retail and wholesale customers on an equitable needs-basis, and establishes surcharges for excess water use. The WSAP was originally adopted by the MWD Board in 2008 and was revised in 2014 and 2020. These efforts increase the reliability of supplies on a region-wide basis, including the LVMWD service area, even under unexpected circumstances, such as catastrophic supply interruption.

8.4.7 Shortage Response Action Effectiveness

LVMWD's historical water use data demonstrates that the District's shortage response actions have been highly effective in reducing demand during drought conditions. As shown in the ten-year historical water use trends, total potable water use declined substantially during recent drought periods, reflecting both strong customer responsiveness and the effectiveness of the District's conservation programs, allocation frameworks, and enforcement measures. These reductions were achieved while maintaining public health and safety and without long-term rebound increases in demand following drought recovery. The District's demonstrated ability to rapidly curtail water use during dry years provides confidence that the shortage response actions outlined in this Water Shortage Contingency Plan will achieve the intended demand reductions when implemented.

LVMWD's primary method for demand reduction is through a variety of water conservation programs, public engagement and increasing enforcement. The district estimates that the suite of demand reduction activities would reduce total demand between 0 and 20%. This is a conservative estimate based on LVMWD experience, regional conservation programs, and estimates from MWD. The 2018-2020 Comprehensive Water Plan reported water savings of 34 percent when compared to 2013, demonstrating a comprehensive trend of permanent water savings. More information on these programs can be found in UWMP Chapter 9 or on the District's website.

8.5 Communication Protocols

LVMWD has several communication tools and methods already enacted to engage customers, the public, elected officials, and other agencies. The following communication tools are used in varying degrees at all water storage levels:

- LVMWD website[10]
- Bill stuffers
- Email listserv
- "The Current Flow" newsletter
- Conference presentations
- Local TV ads and programs
- Printed media (flyers, bulletins)
- Booths at local events
- Facility tours
- Newspaper ads and editorials
- Speakers Bureau
- K-12 classroom events
- Social medial (various)
- Everbridge alerts
- Watersmart Customer Portal

LVMWD's website is one of the primary means of communication and is regularly updated. It includes information about billing and emergencies, as well as water conservation resources. Much of the website content is replicated on various social media platforms and printed media. Content for all external communication is approved by the Director of External Affairs.

The District recognizes that not all customers use or have access to the internet and use alternative methods such as billing stuffers and newspaper ads to communicate with their customers. LVMWD has begun to use translated subtitles on some important video work to ensure that those messages can be understood by Spanish-only speakers.

In the event of an emergency, the District General Manager would contact LVMWD Directors and the Communications Manager to begin the emergency response plan, as previously discussed. The District would also use the Everbridge system to communicate to both internal staff and external customers.

The tools and methods outlined above augment and compliment the efforts by MWD. Both entities have extensive communication and outreach campaigns as outlined in their WSCPs. To ensure the collaboration and continuity of these outreach efforts, staff currently attends regular meetings with MWD. If a water shortage is declared, LVMWD anticipates these meetings will increase in frequency.

8.6 Compliance and Enforcement

Section 3-4.406 of the LVMWD Code outlines enforcement actions for violations of water conservation measures. These actions are summarized in Table 8-B. LVMWD customers are encouraged to report water conservation violations through use of the LVMWD hotline.

Table 8-B: Penalties and Charges

Violation Level	Penalties and Charges
First Violation	The customer shall be notified in writing. The notice shall include a warning that further violations could result in stricter penalties.
Second Violation	A second violation within a twelve-month period is punishable by a fine of up to $100.

[10] https://www.lvmwd.gov/

Third Violation	A third violation within a twelve-month period is punishable by a fine of up to $200.
Fourth Violation	A fourth violation within a twelve-month period is punishable by a fine up to $500.
Fifth Violation	A fifth violation within a twelve-month period may result in the installation of a flow restrictor or termination of service.

LVMWD also employs the use of Administrative Penalties for wasteful water use for landscaping. To enforce water budgets and discourage excessive consumption, escalating financial penalties are applied when usage exceeds 200% of the assigned water budget:

- 1st Violation: Warning notice on the bill.
- 2nd Violation: $2.50 per unit (748 gallons) over 200%.
- 3rd Violation: $5.00 per unit over 200%; possible flow restriction device installation.
- 4th Violation: $7.50 per unit over 200%; flow restriction remains possible.
- 5th and Subsequent Violations: $10 per unit over 200%; flow restriction remains possible.

Customers may appeal within 15 days and defer payment during review. Penalties may be waived for billing errors, health/safety needs, or leaks per the District's Leak Adjustment Policy.

8.7 Legal Authorities

The district's Administrative Code describes the legal authority on which LVMWD will implement this WSCP and is described below.

8.7.1 Legal Authorities

The Water Shortage Contingency Plan establishes four stages of escalating response to a water shortage caused by droughts and emergencies. Each stage may be triggered by a declaration from Federal or State authorities, MWD, or the District, to address events that result in a water shortage. The Administrative Code authorizes the General Manager to implement the appropriate actions necessary to achieve the reduction target. LVMWD adopted the WSCP with Resolution No. 2481 on January 12, 2016. This Resolution amended Section 3-4.407 of the LVMWD Code and repealed Resolution No. 2478.

8.7.2 Declaration of Water Shortage

LVMWD shall declare a water shortage emergency condition to prevail within the area served by LVMWD whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

MWD has stated its legal authorities within their 2020 and 2025 UWMPs.

8.7.3 Proclamation of Local Emergency

Las Virgenes Municipal Water District (LVMWD) maintains active and collaborative relationships with all local jurisdictions within its service area to comply with California Government Code Section 8558 and the

Emergency Services Act. This service area includes the cities of Agoura Hills, Calabasas, Hidden Hills, Westlake Village, as well as the unincorporated areas of western Los Angeles County. In the event of a local emergency, LVMWD is prepared to promptly coordinate with each city council and the Los Angeles County Office of Emergency Management to support emergency proclamations, ensuring that water supply services remain uninterrupted and emergency responses are fully integrated. Coordination protocols include maintaining up-to-date contact lists for city and county emergency management personnel. These measures guarantee that local officials and operational staff work together effectively during critical incidents under each jurisdiction's authority.

8.8 Financial Consequences of a Water Shortage Contingency Plan

LVMWD's water sales make up about 60% of total operating budget ratio, according to the 2024-2026 Adopted Budget. LVMWD designed their rates around water budgets. This structure proved successful during the 2012-2016 drought, since LVMWD was able to avoid both financial difficulties and imposing "drought rates". Additionally, LVMWD's use of Administrative Penalties for wasteful water use, creates a strong economic incentive to reduce water use, while generating additional revenue for the District during shortages. Costs to customers can escalate significantly with continued non-compliance.

8.8.1 Financial Impacts and Mitigation Action

Through its budgeting, financial planning, and rate studies, the District aims to ensure sufficient reserves to weather any financial impacts on managing a water shortage. Potable, recycled, and sanitation enterprise reserves all exceed reserve policy levels. The Rate Stabilization Fund and Operating Funds Cash Requirements exceed District policies and compliance requirements. LVMWD is evaluating additional ways to ensure fixed costs are covered by fixed revenues through its Draft Rate Study, conducted in 2025. This plan proposes reallocating MWD fixed costs to a proposed monthly 'readiness to serve' charge. This will increase financial and rate stability for LVMWD and increase fixed revenue recovery to 36%, ensuring more accurate pass-through of MWD costs.

8.8.2 Reporting Cost of Compliance with Excessive Water Use Prohibition During Drought Emergency

Under California Water Code, retail water suppliers must report the cost of compliance with Section 366, which mandates prohibiting excessive water use by individually metered or submetered residential customers during specified drought emergencies. These emergencies include a Governor-declared statewide drought, a Governor-declared local drought, or a locally declared water shortage requiring mandatory reductions under the supplier's Water Shortage Contingency Plan (WSCP). To comply, suppliers must implement one of two measures: adopt rate structures that discourage excessive use or enact ordinances defining and prohibiting excessive water use. While reporting the actions taken to enforce these measures is not required in the WSCP or Urban Water Management Plan (UWMP), Section 10632(a)(8)(C) requires suppliers to include the cost of compliance in their WSCP.

LVMWD's rate structure is designed to discourage excessive water use through a combination of tiered pricing and conservation incentives. Tiered Potable Water Rates are used where residential customers

pay progressively higher rates as their consumption moves through four tiers. The structure makes high-volume use significantly more expensive, encouraging customers to stay within lower tiers. The District also uses Budget-Based Water Rates which are tailored to household size and property characteristics. Customers who exceed their budgeted allocation move into higher tiers, facing higher per-unit costs. This approach aligns with the state's "Making Conservation a California Way of Life" mandate. LVMWD also employs the use of Administrative Penalties for wasteful water use. To enforce water budgets and discourage excessive consumption, escalating financial penalties are applied when usage exceeds 200% of the assigned water budget.

8.9 Monitoring and Reporting

LVWMD will utilize their SmartMeter/ AMI program to gather monthly data. LVMWD staff will then analyze the data and generate reports which will be included as part of the Annual Assessment.

8.10 WSCP Refinement Procedures

The WSCP will be reviewed as part of the Annual Assessment. The WSCP may also be reviewed in the event that MWD makes substantial changes to their WSCP. To update the WSCP, LVMWD staff would make the necessary changes and go through an internal review process. LVMWD would then go before the Board for a final review and adoption.

8.11 Special Water Feature Distinction

As discussed in the Demand Reduction section, LVMWD will impose restrictions on special water features under a Stage 4 shortage. At Stage 4, outdoor water use will only be allowed for public health and safety purposes.

8.12 Plan Adoption, Submittal, and Availability

The LVMWD WSCP was developed and included in the 2025 UWMP and shall be made available to its purveyors and any city or county within which it provides water supplies no later than 30 days after adoption. Below is a description of how the WSCP will be adopted, submitted, implemented, and amended. The information provided is similar to the UWMP adoption, submittal and implementation process provided in UWMP Chapter 10.

Not later than 30 days after filing a copy of its plan with the Department of Water Resources (DWR), the urban water supplier and the DWR shall make the plan available for public review during normal business hours. The adopted 2025 UWMP and WSCP for the District will be made publicly available on the District's website https://www.lvmwd.com/your-water/urban-water-management-plan.

Chapter 9. Demand Management Measures

9.1 Demand Management Measures for Retail Suppliers

In 2018, two important legislative actions were passed that require water agencies to implement additional conservation efforts. AB 1668 and SB 606 build on previous state efforts to make water conservation a way of life in California and create a new foundation for long-term improvements in water conservation and drought planning. These legislative actions provided the long-term direction of state conservation efforts and have important implications for the District as it implements conservation programs to achieve state mandated conservation requirements.

SB 606 and AB 1668 established guidelines for efficient water use and a framework for the implementation and oversight of the new standards. System water loss legislation under SB-555 also required urban retail water providers to achieve water loss standards for minimizing system water loss (i.e. pipeline leaks). AB 1572 is being implemented as a demand management measure that permanently eliminates potable water use for non-functional turf irrigation at commercial, industrial, and institutional properties, resulting in sustained reductions in landscape water demand.

In order to assist with the implementation of these directives, they have been collectively included into a regulatory and implementation framework called *Making Conservation a California Way of Life*. The framework establishes tightening conservation standards through 2045 and a unique, Urban Water Use Objective (annual water budget) for every urban retail water supplier. The overall budget is a sum of standard-based budgets for a subset of water uses, including residential indoor and outdoor use, real water losses, and commercial, institutional, and industrial landscapes. Failure to comply with unique water budgets can escalate in monetary fines beginning in 2027.

9.1.1 Implementation over the Past Five Years

The purpose of the Demand Management Measures (DMM) section of this UWMP is to describe the DMMs that LVMWD (a) has implemented over the past five years (since 2020) to meet its urban water use reduction targets and (b) plans to implement to meet its urban water use reduction targets. The UWMP Act and Water Code require descriptions of the following DMMs:

- Water waste prevention ordinances
- Metering
- Conservation pricing
- Public education and outreach
- Programs to assess and manage distribution system real loss
- Water conservation program coordination and staffing support
- Other demand management measures

Narrative descriptions of LVMWD's DMMs are provided below and include conservation measures already in place as well as those that are being considered to improve the efficiency of water use within LVMWD.

9.1.2 Implementation to Achieve Water-Use Targets

As described in Chapter 5, LVMWD achieved their SB X7-7 target as reported in the 2020 UWMP. The following sections describe the Demand Management Measures which will be implemented or extended to achieve compliance with urban water-use objectives and annual reporting as defined under 23 CCR Sections 965 through 978.

9.1.3 Required Demand Management Measures

9.1.3.1 Water Waste Prevention Ordinances

Section 3-4.202 of Article 2 of the LVMWD Administrative Code, addresses penalties for wasteful water use. These penalties were adopted in 2015 and were amended in 2019 and in 2023. As described in that section, District customers are not allowed to use water wastefully or negligently and shall not knowingly permit leaks.

Water use budgets are established for each customer of LVMWD. The district employs the use of Administrative Penalties for wasteful water use for landscaping. To enforce water budgets and discourage excessive consumption, escalating financial penalties are applied when usage exceeds 200% of the assigned water budget:

- 1st Violation: Warning notice on the bill.
- 2nd Violation: $2.50 per unit (748 gallons) over 200%.
- 3rd Violation: $5.00 per unit over 200%; possible flow restriction device installation.
- 4th Violation: $7.50 per unit over 200%; flow restriction remains possible.
- 5th and Subsequent Violations: $10 per unit over 200%; flow restriction remains possible.

Customers may appeal within 15 days and defer payment during review. Penalties may be waived for billing errors, health/safety needs, or leaks per the District's Leak Adjustment Policy.

In 2021, LVMWD also updated the Water Shortage Contingency Plan, which is updated herein. See Chapter 8 of this UWMP.

9.1.3.2 Metering

Currently, all connections within LVMWD's service area are metered and customers are billed according to the amount of water used. LVMWD will continue to install meters on all new connections.

In November 2022, Las Virgenes Municipal Water District completed its Advanced Metering Infrastructure (AMI) project implementation, replacing approximately 21,000 meters with smart meters. This meter upgrade program enables near real-time water use monitoring and leak detection and notification through automated continuous consumption alerts, significantly improving customer response to conservation

efforts. The program is estimated to save 1,000–1,500 acre-feet of water annually, primarily through reduced leaks and more efficient customer usage. Currently 36 percent of District customers are registered for the Watersmart customer portal. Even customers who are not formally registered but have an active email receive continuous consumption alerts resulting in improved water conservation outcomes.

9.1.3.3 Conservation Pricing

In an effort to encourage water use reduction, LVMWD implemented a budget-based water billing structure in 2015. Each customer is provided with a personalized water budget, which is designed to meet their specific indoor and outdoor water needs.

For residential customers, budgets are based on 1) indoor use 2) outdoor use and 3) special adjustments based on household needs. The indoor need is based on providing each person in the household with a standard volume of water (California standard is 47 gallons per day per person). The outdoor need is based on irrigated area and local weather and is variable on a monthly basis as weather changes. For commercial customers, individual budgets are based on each customer's historical usage. Customers are then charged based on their efficiency relative to their budget (by tier). A summary of the tiers, tier descriptions, and related 2025 rates for single- and multi-family residential customer classes is provided in Table 9-A.

Table 9-A: Quantity Rates and Tier Level

Tier Name/Description (Residential and Irrigation[b])		**Customer Rates ($/HCF)[a]**
Tier 1	Efficient Indoor (Indoor Water Budget)	$4.76
Tier 2	Efficient Outdoor (Outdoor Water Budget)	$5.69
Tier 3	Inefficient (101-150% of Budget)	$6.51
Tier 4	Excessive (Over 150% of Budget)	$7.92

In addition to the budget-based commodity charges, District water rates also include a "Readiness to Serve Charge", which is a fixed rate depending on the meter size, and per unit elevation charges to offset pumping costs. Elevations charges differ by zone, with customers at higher elevations paying higher costs per unit of water.

9.1.3.4 Public Education and Outreach

Public Information Program

LVMWD maintains an intensive outreach commitment to customers regarding water conservation benefits and practices. LVMWD engages in numerous public information programs, including ongoing public tours of district facilities preceded by a presentation on conservation. Specialized tours are provided to leadership from local cities, state and local elected officials, local environmental group volunteers, and K-12 and college students. LVMWD provides expert speakers to service clubs, homeowner associations,

chambers of commerce and other organizations on a variety of topics, including water conservation, water efficient plant selections, climate impacts on water supply and more.

Las Virgenes–Triunfo's Pure Water pilot project includes a demonstration facility and a complementary sustainability garden designed for education and outreach. The demonstration facility, completed in 2020, allows operators to manage advanced purification processes (micro/ultrafiltration, reverse osmosis, and UV advanced oxidation) and gain hands-on experience in system optimization, troubleshooting, and compliance under real-world conditions. Surrounding this facility is the 7,700 sq ft Pure Water Sustainability Garden in Calabasas, featuring interactive "outdoor classroom" garden rooms equipped with interpretive signage and QR-coded content. The garden highlights water-wise landscaping techniques, native plant biodiversity, stormwater management, and sustainable irrigation, serving as a live teaching tool to engage and inspire the public and reinforce the importance of local recycled water use. Together, these components support both technical preparedness and community education, laying a strong foundation for broader acceptance and understanding of the upcoming advanced water purification facility.

LVMWD utilizes multiple media outlets to encourage water conservation and educate its customers, including social media, its website, cable television, "auto dial" telephone messages, news releases, newsletters, paid ads in local newspapers, and portions of the Water Quality Report dedicated to conservation messaging. LVMWD's General Manager is periodically featured on several television newscasts, a radio program and multiple cable television productions speaking on the topic of water conservation.

The LVMWD website provides a substantial amount of water conservation resources and information. The website includes detailed tips and guidance on conserving water, both indoors and outdoors, including videos on how to check for leaks, irrigate properly, utilize the WaterSmart platform, and save water. In addition, the website is used to advertise initiatives to further reduce potable water use. For example, the website advertises that any resident of LVMWD or Triunfo Water and Sanitation District can obtain free compost from the Rancho Las Virgenes Community Composting Facility every Saturday. The soil amendment improves soil conditions and results in reduced watering needs. Additional content includes rebates, water-wise plants, daily watering index, sign-ups for water-wise gardening classes and facility tours and conservation advisories.

LVMWD also publishes a podcast series and quarterly newsletter to educate the public in water reuse and water conservation. LVMWD's Full Circle Podcast serves as an educational platform to engage the community on water issues, conservation strategies, and the importance of sustainable water management. By explaining complex topics like water recycling and drought resilience in an accessible format, the podcast helps listeners understand how individual actions contribute to regional water security. This outreach effort promotes conservation by fostering awareness, encouraging behavioral changes, and building public support for innovative water solutions. The District's newsletter, "The Current Flow", provides LVMWD customers with updates on conservation, rebates, environmental stewardship, easy to use water-saving ideas, landscaping tips and more. The newsletter is mailed to customers and is also available on the LVMWD website and in hard copy at LVMWD. Water conservation information is also included in the LVMWD annual water quality consumer confidence report. Social media outlets, including X (formerly Twitter), Instagram and Facebook, are also used for public outreach.



At community events occurring throughout the District's service area, LVMWD promotes awareness of water conservation issues through an informational outreach booth, often accompanied by its mascot "Little Drop." Among the many events where LVMWD has encouraged water conservation are the following:

- Great Race Agoura
- Calabasas Earth Day
- City of Thousand Oaks Arbor Day
- City of Westlake Village Earth Day
- International Women's Day
- Agoura Hills Concerts in the Park
- Calabasas Class 5K
- Reyes Adobe Days Festival
- Ladyface Mountain Film Festival
- Westlake City Celebration
- ASM Jacqui Irvin's Safety Fair
- Calabasas Pumpkin Festival
- Calabasas Environmental Forum
- City of Westlake Village Holiday Sing-Along

Further efforts include the donation of water-topic books and other resources to local libraries, and presentations scheduled at local city council meetings, all of which are carried out on public access television. LVMWD also conducts point of purchase advertising in conjunction with its rebate programs.

School Education Programs

The District has supported a concerted effort to support a robust K-12 education program focused on teaching students the importance of water as a limited natural resource. LVMWD's primary outreach is conducted with Las Virgenes Unified School District, which serves approximately 10,500 students. Additional outreach is made to Oak Park Unified School District, private schools, and home-schooled students. Beyond supporting field trips, the LVMWD board annually budgets for $107,000 direct financial support to the Las Virgenes Unified School District Science Team and Water-related curriculum for 4th and 5th grade students. The funding supports specialized science teachers and curriculum on water sources, supply reliability, conservation and environmental stewardship, reaching approximately 1,500 students annually. The District also provides on-site immersive programming centered on promoting greater awareness of water use with activities such as assemblies and hands-on succulent planting.

9.1.3.5 Programs to Assess and Manage Distribution System Real Loss

A Water Loss Audit was produced and validated for the 2024 calendar year. The audit was based on the water system balance methodology established by the American Water Works Association (AWWA) Manual 36. The results showed that LVMWD's unaccounted water losses (real and apparent losses) were approximately 11%.

The District regularly utilizes visual inspection of distribution routes and aerial surveys of 8 miles of pipeline traversing rugged terrain to detect leaks. Additionally, LVMWD has enrolled in a pilot program using ASTERRA Satellite Leak Detection to investigate identified points of interest. This system uses satellites flown over the service area which feed into an algorithm to find locations with possible leaks. The District has applied to MWD's Municipal Leak Detection and Repair Grant Pilot Program to fund the training of staff with newer equipment and a contractor for boots-on-the-ground leak detection services. In 2026, the contractor will investigate a subset of the distribution system per year, with the goal of covering the whole system over a period of years. Investigation of specific locations will also be balanced with points of interest identified by ASTERRA, frequent breaks in certain areas, and results of the pipeline condition assessment study. The results of the pipeline condition assessment study will help inform the creation of the pipeline replacement program, with the goal of identifying and replacing the most at-risk pipelines in advance of breakage.

9.1.3.6 Water Conservation Program Coordination and Staffing Support

Water conservation is one of the primary methods LVMWD uses to reduce total customer demand. In order to achieve those goals, the District launched several conservation efforts targeting the most wasteful water users and inefficient outdoor water use.

Irrigation Efficiency Retrofit Program

The Las Virgenes Municipal Water District's Irrigation Efficiency Retrofit Program (IERP) offers fully funded upgrades for customer irrigation systems to reduce outdoor water waste and maximize water efficient best practices. Following a free Water-Efficient Home Survey conducted by WaterWise professionals, eligible participants receive professional installation services that may include replacing aging nozzles with high-efficiency sprinkler nozzles, conversion from spray to drip irrigation, capping of unnecessary heads, and installation of weather-based "smart" irrigation controllers with full programming support—now available at no cost and valued at up to $1,500 for residential users (and up to $3,000 for commercial/HOA customers). The commercial program includes professional irrigation leak repairs. The program operates on a first-come, first-served basis, with a one-retrofit-per-customer policy and eligibility contingent on a functioning existing system. Key exclusions include trenching, new system installations, mixed-equipment zone retrofits, and major repairs.

Sustainable Landscapes Workshop Series

The Sustainable Landscape Workshop Series is an educational program designed to help residents create water-efficient, environmentally friendly landscapes. These workshops typically cover topics such as drought-tolerant plant selection, soil health, efficient irrigation practices, and landscape design principles that reduce water use while enhancing aesthetics and biodiversity. The series holds 4-8 yearly workshops covering topics such as:

- Turf Removal
- Lawn Alternatives
- Native Garden Maintenance
- Firescaping
- Drip Irrigation



- Pollinator-friendly Gardens
- California-friendly Landscaping
- Garden Design
- Turf Replacement Program (rebate program how-to)

Native Garden Kit Rebate

LVMWD has partnered with TreePeople to offer customers discounted Native Garden Kits. Kits contain 10 one-gallon California native plants, a planting and maintenance guide, and a 'plant-by-numbers' site map. LV customers are eligible to receive a $50 instant rebate for up to five kits.

Drought Relief Landscape Program

LVMWD's Drought Relief Landscape Program is a funded initiative under the State's Urban Community Drought Relief Grant designed to help residents quickly replace high-water-use turf with drought-tolerant landscaping. The program covers turf removal and installation of native, climate-appropriate plants across residential and public properties within its service area, aiming to remove approximately 110,000 ft² of turf.

9.1.3.7 Other Demand Management Measures

Rebate Programs

LVMWD has been offering and promoting water conservation rebates in coordination with MWD as part of the SoCal WaterSmart rebates program, including the following:

- High Efficiency Toilet (HET)
- High Efficiency Clothes Washer (HECW)
- Flow Monitor/Leak Detection Devices
- Weather-Based Irrigation Controller (WBIC)
- Rotating Sprinkler Heads
- Rain Barrel
- Cistern
- Soil Moisture Sensor System
- Premium High-Efficiency Toilets
- Ultra-Low and Zero Water Urinals
- Plumbing Flow Control Valves
- Large Rotary nozzles
- In-stem Flow Regulators
- Soil Moisture Sensor Systems
- Connectionless Food Steamers
- Air-cooled Ice machines
- Cooling Tower Conductivity Controllers
- Cooling Tower pH Controllers



- Dry Vacuum Pumps
- Laminar Flow Restrictors
- Turf Removal

Chapter 10. UWMP Adoption, Submittal, and Implementation

10.1 Plan Completion Timeline

The 2025 LVMWD UWMP consists of water use and planning data for calendar year 2025. The District is reporting on a calendar year basis.

10.2 Notice of Plan Preparation

The Water Code states that cities and counties must be notified that the Supplier will be reviewing the UWMP and considering amendments to the plan at least 60 days prior to the public hearing.

Table 10-1 provides a summary of cities and counties that were provided with both the 60-Day Notice and Notice of Public Hearing by email. The notification letters are included in Appendix A.

Submittal Table 10-1: Retail: Notification to Cities and Counties

Submittal Table 10-1 Retail: Notification to Cities and Counties Water Code Section 10621(b) and 10642		
City Name	60 Day Notice **Drop Down (yes/no)**	Notice of Public Hearing **Drop Down (yes/no)**
Add additional rows as needed		
County Name **Drop Down List**	60 Day Notice **Drop Down (yes/no)**	Notice of Public Hearing **Drop Down (yes/no)**
Add additional rows as needed		
NOTES:		

10.3 Notice of Public Hearing

Public hearings are required for both the UWMP and the WSCP prior to their adoption. Prior to holding the public hearing and adoption meeting for this UWMP and WSCP, a Notice of Public Hearing was published twice in a local newspaper, with a week between each notice. A copy of the public notice is included in Appendix B.

Submittal Table 10-1 above shows notifications of the public hearing.

10.4 Public Hearing and Adoption

As part of the public hearing, the District provided information on its baseline values, water use targets, and implementation plan required in the Water Conservation Act of 2009. The public hearing on the UWMP took place before the adoption of the UWMP, but on the same day as the adoption. The public hearing and board adoption were held at the District office on [Anticipated in May 2026]. The District has formally adopted the UWMP. A copy of the District's adoption resolution is included in Appendix C, along with the agenda for the public hearing.

10.5 Plan Submittal

10.5.1 Submitting a UWMP and WSCP to DWR

The District's 2025 UWMPs will be submitted to DWR within 30 days of adoption and by July 1, 2026. UWMP submittal will be done electronically through the WUE Data Portal, an online submittal tool that will be updated for 2025 UWMPs and available in adequate time for UWMP submittal.

10.5.2 Electronic Data Submittal

The District will submit the UWMP, including the WSCP, and associated Submittal Tables data, and other information electronically using the WUEdata portal.

10.5.3 Submitting a UWMP, Including WSCP, to the California State Library

No later than 30 days after adoption, the District will submit a file on compact disk (CD) or a hard copy of the adopted 2025 UWMP, including the adopted WSCP, to the California State Library at:

California State Library Government Publications Section
Attention: Coordinator, Urban Water Management Plans
P.O. Box 942837
Sacramento, CA 94237-0001

If delivered by courier or overnight carrier to the State Library, the District will use the following street address instead of the P.O. Box:

California State Library Government Publications Section
Attention: Coordinator, Urban Water Management Plans
900 N Street
Sacramento, CA 95814

10.5.4 Submitting a UWMP to Cities and Counties

No later than 30 days after adoption, the District will submit a copy of the adopted 2025 UWMP, including the WSCP, to any city or county to which the District provides water (see Cities and Counties listed on Submittal Table 10-1 R). This will also satisfy Water Code Section 10635(b).

10.6 Public Availability

Not later than 30 days after filing a copy of its plan with DWR, the District will make the plan available for public review during normal business hours. The plan will also be available on the District's website.

10.7 Notification to Public Utilities Commission

LVMWD is not regulated by the California Public Utilities Commission.

10.8 Plan Implementation

The District will implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in this plan.

10.9 Amending an Adopted UWMP or WSCP

10.9.1 Amending a UWMP or WSCP

If the District amends an adopted UWMP or WSCP, each of the steps for notifications, public hearing, adoption, and submittal will also be followed for the amended plan.

10.9.2 Submitting Revised UWMP or WSCP

If the District revises their UWMP or WSCP after DWR has accepted the 2025 UWMP or WSCP, the District will submit to DWR an electronic copy through the WUEdata portal of its revised UWMP or WSCP within 30 days of its adoption.

10.10 California DWR Review of Submitted Plans

After the UWMP has been submitted, DWR will review the plan using the provided checklist (Appendix D) and determine whether the UWMP addresses the requirements of the Water Code. The DWR reviewer will contact the Supplier as needed during the review process. Upon completion of the Plan review, DWR will issue a letter to the Supplier with the results of the review.



Appendices

Appendix A Notification Letters

LAS VIRGENES MUNICIPAL WATER DISTRICT
EST. 1958

Dedicated to Providing High-Quality, Reliable Water Service in a Cost- Effective and Environmentally Sensitive Manner

OFFICERS

President
Andy Coradeschi
Director, Division 2

Vice President
Jay Lewitt
Director, Division 5
MWD Representative

Secretary
Gary Burns
Director, Division 3

Treasurer
Randy Levine
Director, Division 1

Leonard E. Polan
Director, Division 4

David W. Pedersen, P. E.
General Manager

W. Keith Lemieux
Counsel

HEADQUARTERS
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2100
Fax (818) 251-2109

WESTLAKE
FILTRATION PLANT
(818) 251-2370
Fax (818) 251-2379

TAPIA WATER
RECLAMATION FACILITY
(818) 251-2300
Fax (818) 251-2309

RANCHO LAS VIRGENES
COMPOSTING FACILITY
(818) 251-2340
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE
METROPOLITAN WATER
DISTRICT
OF SOUTHERN CALIFORNIA

March 11, 2026

Attention:
Kristine McCaffrey & Ian Prichard
General Manager, Deputy General Manager
Calleguas Municipal Water District
2100 E. Olsen Road
Thousand Oaks, CA 91360-6800

Dear Ms. McCaffrey and Mr. Prichard,

Reference: Notice of Preparation of Las Virgenes Municipal Water District (LVMWD) 2025 Urban Water Management Plan and Water Shortage Contingency Plan Availability and Public Comment Period

This letter serves as notification that Las Virgenes Municipal Water District (LVMWD) is currently preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) in accordance with the Urban Water Management Planning Act of the California Water Code. The Act requires urban water suppliers supplying more than 3,000 acre-feet of water annually or providing water to more than 3,000 customers to update their UWMP every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. The WSCP is a planning document that provides a plan of action to be followed at various levels of a water shortage. An updated UWMP and WSCP are necessary for LVMWD to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2025 UWMP and WSCP will include an update of anticipated water demands in the LVMWD service area. LVMWD invites all stakeholders and the public to participate in the process and provide comments on any elements of the UWMP or WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

A draft of LVMWD's 2025 UWMP and WSCP will be available for review prior to the public hearing, which is tentatively scheduled for June 16, 2026. We anticipate that a draft UWMP and WSCP will be available for public review starting in late March 2026 at https://www.lvmwd.gov/urban-water-management-plan and LVMWD will hold a public hearing subsequent to the 60-day review period and prior to adoption of the final UWMP. The exact day and time of the meeting will be announced on the above website link when the agenda has been finalized. All interested parties are invited to attend.

If you would like more information or have any questions, please contact Cindy Chau, MPH, at 818-251-2168 or via email at cchau@lvmwd.gov.

Regards,

Cindy Chau

Cindy Chau, MPH
Management Analyst II
Las Virgenes Municipal Water District

LAS VIRGENES MUNICIPAL WATER DISTRICT
EST. 1958

Dedicated to Providing High-Quality, Reliable Water Service in a Cost- Effective and Environmentally Sensitive Manner

OFFICERS

President
Andy Coradeschi
Director, Division 2

Vice President
Jay Lewitt
Director, Division 5
MWD Representative

Secretary
Gary Burns
Director, Division 3

Treasurer
Randy Levine
Director, Division 1

Leonard E. Polan
Director, Division 4

David W. Pedersen, P. E.
General Manager

W. Keith Lemieux
Counsel

HEADQUARTERS
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2100
Fax (818) 251-2109

WESTLAKE
FILTRATION PLANT
(818) 251-2370
Fax (818) 251-2379

TAPIA WATER
RECLAMATION FACILITY
(818) 251-2300
Fax (818) 251-2309

RANCHO LAS VIRGENES
COMPOSTING FACILITY
(818) 251-2340
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE
METROPOLITAN WATER
DISTRICT
OF SOUTHERN CALIFORNIA

March 11, 2026

Attention:
Charmaine Yambao
Director of Public Works/City Engineer
City of Agoura Hills
30001 Ladyface Court
Agoura Hills, CA 91301

Dear Ms. Yambao,

Reference: Notice of Preparation of Las Virgenes Municipal Water District (LVMWD) 2025 Urban Water Management Plan and Water Shortage Contingency Plan Availability and Public Comment Period

This letter serves as notification that Las Virgenes Municipal Water District (LVMWD) is currently preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) in accordance with the Urban Water Management Planning Act of the California Water Code. The Act requires urban water suppliers supplying more than 3,000 acre-feet of water annually or providing water to more than 3,000 customers to update their UWMP every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. The WSCP is a planning document that provides a plan of action to be followed at various levels of a water shortage. An updated UWMP and WSCP are necessary for LVMWD to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2025 UWMP and WSCP will include an update of anticipated water demands in the LVMWD service area. LVMWD invites all stakeholders and the public to participate in the process and provide comments on any elements of the UWMP or WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

As part of this effort, we are using your jurisdiction's most recently available Housing Element to estimate future population growth and water demand. If your agency has a more current or updated Housing Element than what is publicly available online, we would appreciate it if you could share that information with us.

A draft of LVMWD's 2025 UWMP and WSCP will be available for review prior to the public hearing, which is tentatively scheduled for June 16, 2026. We anticipate that a draft UWMP and WSCP will be available for public review starting in mid-March 2026 at https://www.lvmwd.gov/urban-water-management-plan and LVMWD will hold a public hearing subsequent to the 60-day review period and prior to adoption of the final UWMP. The exact day and time of the meeting will be announced on the above website link when the agenda has been finalized. All interested parties are invited to attend.

If you would like more information or have any questions, please contact Cindy Chau, MPH, at 818-251-2168 or via email at cchau@lvmwd.gov.

Regards,

Cindy Chau

Cindy Chau, MPH
Management Analyst II
Las Virgenes Municipal Water District

LAS VIRGENES MUNICIPAL WATER DISTRICT
EST. 1958

Dedicated to Providing High-Quality, Reliable Water Service in a Cost- Effective and Environmentally Sensitive Manner

OFFICERS

President
Andy Coradeschi
Director, Division 2

Vice President
Jay Lewitt
Director, Division 5
MWD Representative

Secretary
Gary Burns
Director, Division 3

Treasurer
Randy Levine
Director, Division 1

Leonard E. Polan
Director, Division 4

David W. Pedersen, P. E.
General Manager

W. Keith Lemieux
Counsel

HEADQUARTERS
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2100
Fax (818) 251-2109

WESTLAKE
FILTRATION PLANT
(818) 251-2370
Fax (818) 251-2379

TAPIA WATER
RECLAMATION FACILITY
(818) 251-2300
Fax (818) 251-2309

RANCHO LAS VIRGENES
COMPOSTING FACILITY
(818) 251-2340
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE
METROPOLITAN WATER
DISTRICT
OF SOUTHERN CALIFORNIA

March 11, 2026

Attention:
Curtis Castle and Michael Klein
Public Works Director/City Engineer, Community Development Director
City of Calabasas
100 Civic Center Way
Calabasas, CA 91302

Dear Mr. Castle and Mr. Klein,

Reference: Notice of Preparation of Las Virgenes Municipal Water District (LVMWD) 2025 Urban Water Management Plan and Water Shortage Contingency Plan Availability and Public Comment Period

This letter serves as notification that Las Virgenes Municipal Water District (LVMWD) is currently preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) in accordance with the Urban Water Management Planning Act of the California Water Code. The Act requires urban water suppliers supplying more than 3,000 acre-feet of water annually or providing water to more than 3,000 customers to update their UWMP every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. The WSCP is a planning document that provides a plan of action to be followed at various levels of a water shortage. An updated UWMP and WSCP are necessary for LVMWD to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2025 UWMP and WSCP will include an update of anticipated water demands in the LVMWD service area. LVMWD invites all stakeholders and the public to participate in the process and provide comments on any elements of the UWMP or WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

As part of this effort, we are using your jurisdiction's most recently available Housing Element to estimate future population growth and water demand. If your agency has a more current or updated Housing Element than what is publicly available online, we would appreciate it if you could share that information with us.

A draft of LVMWD's 2025 UWMP and WSCP will be available for review prior to the public hearing, which is tentatively scheduled for June 16, 2026. We anticipate that a draft UWMP and WSCP will be available for public review starting in mid-March 2026 at https://www.lvmwd.gov/urban-water-management-plan and LVMWD will hold a public hearing subsequent to the 60-day review period and prior to adoption of the final UWMP. The exact day and time of the meeting will be announced on the above website link when the agenda has been finalized. All interested parties are invited to attend.

If you would like more information or have any questions, please contact Cindy Chau, MPH, at 818-251-2168 or via email at cchau@lvmwd.gov.

Regards,

Cindy Chau

Cindy Chau, MPH
Management Analyst II
Las Virgenes Municipal Water District

LAS VIRGENES MUNICIPAL WATER DISTRICT
EST. 1958

Dedicated to Providing High-Quality, Reliable Water Service in a Cost- Effective and Environmentally Sensitive Manner

OFFICERS

President
Andy Coradeschi
Director, Division 2

Vice President
Jay Lewitt
Director, Division 5
MWD Representative

Secretary
Gary Burns
Director, Division 3

Treasurer
Randy Levine
Director, Division 1

Leonard E. Polan
Director, Division 4

David W. Pedersen, P. E.
General Manager

W. Keith Lemieux
Counsel

HEADQUARTERS
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2100
Fax (818) 251-2109

WESTLAKE
FILTRATION PLANT
(818) 251-2370
Fax (818) 251-2379

TAPIA WATER
RECLAMATION FACILITY
(818) 251-2300
Fax (818) 251-2309

RANCHO LAS VIRGENES
COMPOSTING FACILITY
(818) 251-2340
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE
METROPOLITAN WATER
DISTRICT
OF SOUTHERN CALIFORNIA

March 11, 2026

Attention:
Michael Ackerman
City Engineer
City of Hidden Hills
6165 Spring Valley Road
Hidden Hills, CA 91302

Dear Mr. Ackerman,

Reference: Notice of Preparation of Las Virgenes Municipal Water District (LVMWD) 2025 Urban Water Management Plan and Water Shortage Contingency Plan Availability and Public Comment Period

This letter serves as notification that Las Virgenes Municipal Water District (LVMWD) is currently preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) in accordance with the Urban Water Management Planning Act of the California Water Code. The Act requires urban water suppliers supplying more than 3,000 acre-feet of water annually or providing water to more than 3,000 customers to update their UWMP every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. The WSCP is a planning document that provides a plan of action to be followed at various levels of a water shortage. An updated UWMP and WSCP are necessary for LVMWD to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2025 UWMP and WSCP will include an update of anticipated water demands in the LVMWD service area. LVMWD invites all stakeholders and the public to participate in the process and provide comments on any elements of the UWMP or WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

As part of this effort, we are using your jurisdiction's most recently available Housing Element to estimate future population growth and water demand. If your agency has a more current or updated Housing Element than what is publicly available online, we would appreciate it if you could share that information with us.]

A draft of LVMWD's 2025 UWMP and WSCP will be available for review prior to the public hearing, which is tentatively scheduled for June 16, 2026. We anticipate that a draft UWMP and WSCP will be available for public review starting in mid-March 2026 at https://www.lvmwd.gov/urban-water-management-plan and LVMWD will hold a public hearing subsequent to the 60-day review period and prior to adoption of the final UWMP. The exact day and time of the meeting will be announced on the above website link when the agenda has been finalized. All interested parties are invited to attend.

If you would like more information or have any questions, please contact Cindy Chau, MPH, at 818-251-2168 or via email at cchau@lvmwd.gov.

Regards,

Cindy Chau

Cindy Chau, MPH
Management Analyst II
Las Virgenes Municipal Water District

LAS VIRGENES MUNICIPAL WATER DISTRICT
EST. 1958

Dedicated to Providing High-Quality, Reliable Water Service in a Cost- Effective and Environmentally Sensitive Manner

OFFICERS

President
Andy Coradeschi
Director, Division 2

Vice President
Jay Lewitt
Director, Division 5
MWD Representative

Secretary
Gary Burns
Director, Division 3

Treasurer
Randy Levine
Director, Division 1

Leonard E. Polan
Director, Division 4

David W. Pedersen, P. E.
General Manager

W. Keith Lemieux
Counsel

HEADQUARTERS
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2100
Fax (818) 251-2109

WESTLAKE
FILTRATION PLANT
(818) 251-2370
Fax (818) 251-2379

TAPIA WATER
RECLAMATION FACILITY
(818) 251-2300
Fax (818) 251-2309

RANCHO LAS VIRGENES
COMPOSTING FACILITY
(818) 251-2340
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE
METROPOLITAN WATER
DISTRICT
OF SOUTHERN CALIFORNIA

March 11, 2026

Attention:
Tatiana Holden & Travis Hart
Interim Public Works Director/City Engineer,
Interim Assistant Public Works Director
City of Malibu
23825 Stuart Ranch Road
Malibu, CA 90265-4861

Dear Ms. Holden and Mr. Hart,

Reference: Notice of Preparation of Las Virgenes Municipal Water District (LVMWD) 2025 Urban Water Management Plan and Water Shortage Contingency Plan Availability and Public Comment Period

This letter serves as notification that Las Virgenes Municipal Water District (LVMWD) is currently preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) in accordance with the Urban Water Management Planning Act of the California Water Code. The Act requires urban water suppliers supplying more than 3,000 acre-feet of water annually or providing water to more than 3,000 customers to update their UWMP every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. The WSCP is a planning document that provides a plan of action to be followed at various levels of a water shortage. An updated UWMP and WSCP are necessary for LVMWD to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2025 UWMP and WSCP will include an update of anticipated water demands in the LVMWD service area. LVMWD invites all stakeholders and the public to participate in the process and provide comments on any elements of the UWMP or WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

A draft of LVMWD's 2025 UWMP and WSCP will be available for review prior to the public hearing, which is tentatively scheduled for June 16, 2026. We anticipate that a draft UWMP and WSCP will be available for public review starting in mid-March 2026 at https://www.lvmwd.gov/urban-water-management-plan and LVMWD will hold a public hearing subsequent to the 60-day review period and prior to adoption of the final UWMP. The exact day and time of the meeting will be announced on the above website link when the agenda has been finalized. All interested parties are invited to attend.

If you would like more information or have any questions, please contact Cindy Chau, MPH, at 818-251-2168 or via email at cchau@lvmwd.gov.

Regards,

Cindy Chau

Cindy Chau, MPH
Management Analyst II
Las Virgenes Municipal Water District

LAS VIRGENES MUNICIPAL WATER DISTRICT EST. 1958

Dedicated to Providing High-Quality, Reliable Water Service in a Cost- Effective and Environmentally Sensitive Manner

OFFICERS

President
Andy Coradeschi
Director, Division 2

Vice President
Jay Lewitt
Director, Division 5
MWD Representative

Secretary
Gary Burns
Director, Division 3

Treasurer
Randy Levine
Director, Division 1

Leonard E. Polan
Director, Division 4

David W. Pedersen, P. E.
General Manager

W. Keith Lemieux
Counsel

HEADQUARTERS
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2100
Fax (818) 251-2109

WESTLAKE
FILTRATION PLANT
(818) 251-2370
Fax (818) 251-2379

TAPIA WATER
RECLAMATION FACILITY
(818) 251-2300
Fax (818) 251-2309

RANCHO LAS VIRGENES
COMPOSTING FACILITY
(818) 251-2340
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

March 11, 2026

Attention:
Ron Fuchiwaki
Director of Public Works
City of Simi Valley, Waterworks District No. 8
2929 Tapo Canyon Road
Simi Valley, CA 93063

Dear Mr. Fuchiwaki,

Reference: Notice of Preparation of Las Virgenes Municipal Water District (LVMWD) 2025 Urban Water Management Plan and Water Shortage Contingency Plan Availability and Public Comment Period

This letter serves as notification that Las Virgenes Municipal Water District (LVMWD) is currently preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) in accordance with the Urban Water Management Planning Act of the California Water Code. The Act requires urban water suppliers supplying more than 3,000 acre-feet of water annually or providing water to more than 3,000 customers to update their UWMP every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. The WSCP is a planning document that provides a plan of action to be followed at various levels of a water shortage. An updated UWMP and WSCP are necessary for LVMWD to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2025 UWMP and WSCP will include an update of anticipated water demands in the LVMWD service area. LVMWD invites all stakeholders and the public to participate in the process and provide comments on any elements of the UWMP or WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

A draft of LVMWD's 2025 UWMP and WSCP will be available for review prior to the public hearing, which is tentatively scheduled for June 16, 2026. We anticipate that a draft UWMP and WSCP will be available for public review starting in mid-March 2026 at https://www.lvmwd.gov/urban-water-management-plan and LVMWD will hold a public hearing subsequent to the 60-day review period and prior to adoption of the final UWMP. The exact day and time of the meeting will be announced on the above website link when the agenda has been finalized. All interested parties are invited to attend.

If you would like more information or have any questions, please contact Cindy Chau, MPH, at 818-251-2168 or via email at cchau@lvmwd.gov.

Regards,

Cindy Chau

Cindy Chau, MPH
Management Analyst II
Las Virgenes Municipal Water District

LAS VIRGENES MUNICIPAL WATER DISTRICT
EST. 1958

Dedicated to Providing High-Quality, Reliable Water Service in a Cost- Effective and Environmentally Sensitive Manner

OFFICERS

President
Andy Coradeschi
Director, Division 2

Vice President
Jay Lewitt
Director, Division 5
MWD Representative

Secretary
Gary Burns
Director, Division 3

Treasurer
Randy Levine
Director, Division 1

Leonard E. Polan
Director, Division 4

David W. Pedersen, P. E.
General Manager

W. Keith Lemieux
Counsel

HEADQUARTERS
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2100
Fax (818) 251-2109

WESTLAKE
FILTRATION PLANT
(818) 251-2370
Fax (818) 251-2379

TAPIA WATER
RECLAMATION FACILITY
(818) 251-2300
Fax (818) 251-2309

RANCHO LAS VIRGENES
COMPOSTING FACILITY
(818) 251-2340
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE
METROPOLITAN WATER
DISTRICT
OF SOUTHERN CALIFORNIA

March 11, 2026

Attention:
Kristen Asp
Planning Director
City of Westlake Village
31200 Oak Crest Drive
Westlake Village, CA 91361

Dear Ms. Asp,

Reference: Notice of Preparation of Las Virgenes Municipal Water District (LVMWD) 2025 Urban Water Management Plan and Water Shortage Contingency Plan Availability and Public Comment Period

This letter serves as notification that Las Virgenes Municipal Water District (LVMWD) is currently preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) in accordance with the Urban Water Management Planning Act of the California Water Code. The Act requires urban water suppliers supplying more than 3,000 acre-feet of water annually or providing water to more than 3,000 customers to update their UWMP every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. The WSCP is a planning document that provides a plan of action to be followed at various levels of a water shortage. An updated UWMP and WSCP are necessary for LVMWD to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2025 UWMP and WSCP will include an update of anticipated water demands in the LVMWD service area. LVMWD invites all stakeholders and the public to participate in the process and provide comments on any elements of the UWMP or WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

As part of this effort, we are using your jurisdiction's most recently available Housing Element to estimate future population growth and water demand. If your agency has a more current or updated Housing Element than what is publicly available online, we would appreciate it if you could share that information with us

A draft of LVMWD's 2025 UWMP and WSCP will be available for review prior to the public hearing, which is tentatively scheduled for June 16, 2026. We anticipate that a draft UWMP and WSCP will be available for public review starting in mid-March 2026 at https://www.lvmwd.gov/urban-water-management-plan and LVMWD will hold a public hearing subsequent to the 60-day review period and prior to adoption of the final UWMP. The exact day and time of the meeting will be announced on the above website link when the agenda has been finalized. All interested parties are invited to attend.

If you would like more information or have any questions, please contact Cindy Chau, MPH, at 818-251-2168 or via email at cchau@lvmwd.gov.

Regards,

Cindy Chau

Cindy Chau, MPH
Management Analyst II
Las Virgenes Municipal Water District

LAS VIRGENES MUNICIPAL WATER DISTRICT EST. 1958

Dedicated to Providing High-Quality, Reliable Water Service in a Cost- Effective and Environmentally Sensitive Manner

OFFICERS

President
Andy Coradeschi
Director, Division 2

Vice President
Jay Lewitt
Director, Division 5
MWD Representative

Secretary
Gary Burns
Director, Division 3

Treasurer
Randy Levine
Director, Division 1

Leonard E. Polan
Director, Division 4

David W. Pedersen, P. E.
General Manager

W. Keith Lemieux
Counsel

HEADQUARTERS
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2100
Fax (818) 251-2109

WESTLAKE
FILTRATION PLANT
(818) 251-2370
Fax (818) 251-2379

TAPIA WATER
RECLAMATION FACILITY
(818) 251-2300
Fax (818) 251-2309

RANCHO LAS VIRGENES
COMPOSTING FACILITY
(818) 251-2340
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE
METROPOLITAN WATER
DISTRICT
OF SOUTHERN CALIFORNIA

March 11, 2026

Attention:
Jeff Gorell
Supervisor Second District
County of Ventura
2100 E. Thousand Oaks Blvd., Suite E
Thousand Oaks, 91362

Dear Mr. Gorell,

Reference: Notice of Preparation of Las Virgenes Municipal Water District (LVMWD) 2025 Urban Water Management Plan and Water Shortage Contingency Plan Availability and Public Comment Period

This letter serves as notification that Las Virgenes Municipal Water District (LVMWD) is currently preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) in accordance with the Urban Water Management Planning Act of the California Water Code. The Act requires urban water suppliers supplying more than 3,000 acre-feet of water annually or providing water to more than 3,000 customers to update their UWMP every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. The WSCP is a planning document that provides a plan of action to be followed at various levels of a water shortage. An updated UWMP and WSCP are necessary for LVMWD to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2025 UWMP and WSCP will include an update of anticipated water demands in the LVMWD service area. LVMWD invites all stakeholders and the public to participate in the process and provide comments on any elements of the UWMP or WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

A draft of LVMWD's 2025 UWMP and WSCP will be available for review prior to the public hearing, which is tentatively scheduled for June 16, 2026. We anticipate that a draft UWMP and WSCP will be available for public review starting in mid-March 2026 at https://www.lvmwd.gov/urban-water-management-plan and LVMWD will hold a public hearing subsequent to the 60-day review period and prior to adoption of the final UWMP. The exact day and time of the meeting will be announced on the above website link when the agenda has been finalized. All interested parties are invited to attend.

If you would like more information or have any questions, please contact Cindy Chau, MPH, at 818-251-2168 or via email at cchau@lvmwd.gov.

Regards,

Cindy Chau

Cindy Chau, MPH
Management Analyst II
Las Virgenes Municipal Water District

LAS VIRGENES MUNICIPAL WATER DISTRICT
EST. 1958

Dedicated to Providing High-Quality, Reliable Water Service in a Cost- Effective and Environmentally Sensitive Manner

OFFICERS

President
Andy Coradeschi
Director, Division 2

Vice President
Jay Lewitt
Director, Division 5
MWD Representative

Secretary
Gary Burns
Director, Division 3

Treasurer
Randy Levine
Director, Division 1

Leonard E. Polan
Director, Division 4

David W. Pedersen, P. E.
General Manager

W. Keith Lemieux
Counsel

HEADQUARTERS
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2100
Fax (818) 251-2109

WESTLAKE
FILTRATION PLANT
(818) 251-2370
Fax (818) 251-2379

TAPIA WATER
RECLAMATION FACILITY
(818) 251-2300
Fax (818) 251-2309

RANCHO LAS VIRGENES
COMPOSTING FACILITY
(818) 251-2340
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE
METROPOLITAN WATER
DISTRICT
OF SOUTHERN CALIFORNIA

March 11, 2026

Attention:
Amy J. Bodek & Dennis Slavin
Director and Chief Deputy Director, Department of Regional Planning
LA County Planning
320 West Temple Street
Los Angeles, CA 90012

Dear Ms. Bodek and Mr. Slavin,

Reference: Notice of Preparation of Las Virgenes Municipal Water District (LVMWD) 2025 Urban Water Management Plan and Water Shortage Contingency Plan Availability and Public Comment Period

This letter serves as notification that Las Virgenes Municipal Water District (LVMWD) is currently preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) in accordance with the Urban Water Management Planning Act of the California Water Code. The Act requires urban water suppliers supplying more than 3,000 acre-feet of water annually or providing water to more than 3,000 customers to update their UWMP every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. The WSCP is a planning document that provides a plan of action to be followed at various levels of a water shortage. An updated UWMP and WSCP are necessary for LVMWD to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2025 UWMP and WSCP will include an update of anticipated water demands in the LVMWD service area. LVMWD invites all stakeholders and the public to participate in the process and provide comments on any elements of the UWMP or WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

A draft of LVMWD's 2025 UWMP and WSCP will be available for review prior to the public hearing, which is tentatively scheduled for June 16, 2026. We anticipate that a draft UWMP and WSCP will be available for public review starting in mid-March 2026 at https://www.lvmwd.gov/urban-water-management-plan and LVMWD will hold a public hearing subsequent to the 60-day review period and prior to adoption of the final UWMP. The exact day and time of the meeting will be announced on the above website link when the agenda has been finalized. All interested parties are invited to attend.

If you would like more information or have any questions, please contact Cindy Chau, MPH, at 818-251-2168 or via email at cchau@lvmwd.gov.

Regards,

Cindy Chau

Cindy Chau, MPH
Management Analyst II
Las Virgenes Municipal Water District

LAS VIRGENES MUNICIPAL WATER DISTRICT
EST. 1958

Dedicated to Providing High-Quality, Reliable Water Service in a Cost- Effective and Environmentally Sensitive Manner

OFFICERS

President
Andy Coradeschi
Director, Division 2

Vice President
Jay Lewitt
Director, Division 5
MWD Representative

Secretary
Gary Burns
Director, Division 3

Treasurer
Randy Levine
Director, Division 1

Leonard E. Polan
Director, Division 4

David W. Pedersen, P. E.
General Manager

W. Keith Lemieux
Counsel

HEADQUARTERS
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2100
Fax (818) 251-2109

WESTLAKE
FILTRATION PLANT
(818) 251-2370
Fax (818) 251-2379

TAPIA WATER
RECLAMATION FACILITY
(818) 251-2300
Fax (818) 251-2309

RANCHO LAS VIRGENES
COMPOSTING FACILITY
(818) 251-2340
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE
METROPOLITAN WATER
DISTRICT
OF SOUTHERN CALIFORNIA

March 11, 2026

Attention:
Mai Hattar & David Sumi
Chief Engineer/Group Manager, Engineering Services,
Senior Resource Specialist, Water Resource Management Group
The Metropolitan Water District of Southern California
P.O. Box 54153
Los Angeles, CA 90054-0153

Dear Ms. Hattar and Mr. Sumi,

Reference: Notice of Preparation of Las Virgenes Municipal Water District (LVMWD) 2025 Urban Water Management Plan and Water Shortage Contingency Plan Availability and Public Comment Period

This letter serves as notification that Las Virgenes Municipal Water District (LVMWD) is currently preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) in accordance with the Urban Water Management Planning Act of the California Water Code. The Act requires urban water suppliers supplying more than 3,000 acre-feet of water annually or providing water to more than 3,000 customers to update their UWMP every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. The WSCP is a planning document that provides a plan of action to be followed at various levels of a water shortage. An updated UWMP and WSCP are necessary for LVMWD to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2025 UWMP and WSCP will include an update of anticipated water demands in the LVMWD service area. LVMWD invites all stakeholders and the public to participate in the process and provide comments on any elements of the UWMP or WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

A draft of LVMWD's 2025 UWMP and WSCP will be available for review prior to the public hearing, which is tentatively scheduled for June 16, 2026. We anticipate that a draft UWMP and WSCP will be available for public review starting in mid-March 2026 at https://www.lvmwd.gov/urban-water-management-plan and LVMWD will hold a public hearing subsequent to the 60-day review period and prior to adoption of the final UWMP. The exact day and time of the meeting will be announced on the above website link when the agenda has been finalized. All interested parties are invited to attend.

If you would like more information or have any questions, please contact Cindy Chau, MPH, at 818-251-2168 or via email at cchau@lvmwd.gov.

Regards,

Cindy Chau

Cindy Chau, MPH
Management Analyst II
Las Virgenes Municipal Water District

LAS VIRGENES MUNICIPAL WATER DISTRICT
EST. 1958

Dedicated to Providing High-Quality, Reliable Water Service in a Cost- Effective and Environmentally Sensitive Manner

OFFICERS

President
Andy Coradeschi
Director, Division 2

Vice President
Jay Lewitt
Director, Division 5
MWD Representative

Secretary
Gary Burns
Director, Division 3

Treasurer
Randy Levine
Director, Division 1

Leonard E. Polan
Director, Division 4

David W. Pedersen, P. E.
General Manager

W. Keith Lemieux
Counsel

HEADQUARTERS
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2100
Fax (818) 251-2109

WESTLAKE
FILTRATION PLANT
(818) 251-2370
Fax (818) 251-2379

TAPIA WATER
RECLAMATION FACILITY
(818) 251-2300
Fax (818) 251-2309

RANCHO LAS VIRGENES
COMPOSTING FACILITY
(818) 251-2340
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE
METROPOLITAN WATER
DISTRICT
OF SOUTHERN CALIFORNIA

March 11, 2026

Attention:
Jeff Palmer
Assistant Agency Director, Water and Sanitation
Public Works Ventura County
800 South Victoria Avenue L#1600
Ventura, CA 93009-1600

Dear Mr. Palmer,

Reference: Notice of Preparation of Las Virgenes Municipal Water District (LVMWD) 2025 Urban Water Management Plan and Water Shortage Contingency Plan Availability and Public Comment Period

This letter serves as notification that Las Virgenes Municipal Water District (LVMWD) is currently preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) in accordance with the Urban Water Management Planning Act of the California Water Code. The Act requires urban water suppliers supplying more than 3,000 acre-feet of water annually or providing water to more than 3,000 customers to update their UWMP every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. The WSCP is a planning document that provides a plan of action to be followed at various levels of a water shortage. An updated UWMP and WSCP are necessary for LVMWD to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2025 UWMP and WSCP will include an update of anticipated water demands in the LVMWD service area. LVMWD invites all stakeholders and the public to participate in the process and provide comments on any elements of the UWMP or WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

A draft of LVMWD's 2025 UWMP and WSCP will be available for review prior to the public hearing, which is tentatively scheduled for June 16, 2026. We anticipate that a draft UWMP and WSCP will be available for public review starting in mid-March 2026 at https://www.lvmwd.gov/urban-water-management-plan and LVMWD will hold a public hearing subsequent to the 60-day review period and prior to adoption of the final UWMP. The exact day and time of the meeting will be announced on the above website link when the agenda has been finalized. All interested parties are invited to attend.

If you would like more information or have any questions, please contact Cindy Chau, MPH, at 818-251-2168 or via email at cchau@lvmwd.gov.

Regards,

Cindy Chau

Cindy Chau, MPH
Management Analyst II
Las Virgenes Municipal Water District

LAS VIRGENES MUNICIPAL WATER DISTRICT
EST. 1958

Dedicated to Providing High-Quality, Reliable Water Service in a Cost- Effective and Environmentally Sensitive Manner

OFFICERS

President
Andy Coradeschi
Director, Division 2

Vice President
Jay Lewitt
Director, Division 5
MWD Representative

Secretary
Gary Burns
Director, Division 3

Treasurer
Randy Levine
Director, Division 1

Leonard E. Polan
Director, Division 4

David W. Pedersen, P. E.
General Manager

W. Keith Lemieux
Counsel

HEADQUARTERS
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2100
Fax (818) 251-2109

WESTLAKE
FILTRATION PLANT
(818) 251-2370
Fax (818) 251-2379

TAPIA WATER
RECLAMATION FACILITY
(818) 251-2300
Fax (818) 251-2309

RANCHO LAS VIRGENES
COMPOSTING FACILITY
(818) 251-2340
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE
METROPOLITAN WATER
DISTRICT
OF SOUTHERN CALIFORNIA

March 11, 2026

Attention:
Mark Norris & David Rydman
General Manager, Operations Manager
Triunfo Water and Sanitation District
370 N Westlake Blvd Suite 100
Westlake Village, CA 91362

Dear Mr. Norris and Mr. Rydman,

Reference: Notice of Preparation of Las Virgenes Municipal Water District (LVMWD) 2025 Urban Water Management Plan and Water Shortage Contingency Plan Availability and Public Comment Period

This letter serves as notification that Las Virgenes Municipal Water District (LVMWD) is currently preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) in accordance with the Urban Water Management Planning Act of the California Water Code. The Act requires urban water suppliers supplying more than 3,000 acre-feet of water annually or providing water to more than 3,000 customers to update their UWMP every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. The WSCP is a planning document that provides a plan of action to be followed at various levels of a water shortage. An updated UWMP and WSCP are necessary for LVMWD to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2025 UWMP and WSCP will include an update of anticipated water demands in the LVMWD service area. LVMWD invites all stakeholders and the public to participate in the process and provide comments on any elements of the UWMP or WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

A draft of LVMWD's 2025 UWMP and WSCP will be available for review prior to the public hearing, which is tentatively scheduled for June 16, 2026. We anticipate that a draft UWMP and WSCP will be available for public review starting in mid-March 2026 at https://www.lvmwd.gov/urban-water-management-plan and LVMWD will hold a public hearing subsequent to the 60-day review period and prior to adoption of the final UWMP. The exact day and time of the meeting will be announced on the above website link when the agenda has been finalized. All interested parties are invited to attend.

If you would like more information or have any questions, please contact Cindy Chau, MPH, at 818-251-2168 or via email at cchau@lvmwd.gov.

Regards,

Cindy Chau

Cindy Chau, MPH
Management Analyst II
Las Virgenes Municipal Water District

Appendix B Public Notification

Appendix C Adoption Resolution & Hearing Agenda

Appendix D DWR Checklist

Table Appendix D: Urban Water Management Plan Checklist

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and overview	n/a	Chapter 1
x	x	Chapter 1	10630.5	Each plan shall include a simple description of the Supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a Supplier may also choose to include a simple description at the beginning of each chapter.	Plan preparation	n/a	Chapter 1
x	x	Section 2.1	10620(b)	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	Plan preparation	n/a	Section 2.1
x	n/a	Section 2.5	10644	Supplier shall report the Public Water Systems number, volume of delivered water, and number of connections that are included in this UWMP.	Plan preparation	2-1	Chapter 2
x	x	Section 2.5	10644	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	Plan preparation	2-2	Chapter 2
x	x	Section 2.5	10644	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	Plan preparation	2-3	Chapter 2
x	x	Section 2.4	10642	Provide supporting documentation that the Supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan preparation	n/a	Section 2.4
x	x	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan preparation	n/a	Section 2.4.2
x	n/a	Section 2.4.1	10631(h)	Retail Suppliers will include documentation that they have provided their Wholesale Supplier(s)—if any—with water use projections from that source.	Plan preparation	2-4 R	Chapter 2
n/a	x	Section 2.4.1	10631(h)	Wholesale Suppliers will provide their Suppliers with identification and quantification of the existing and planned sources of water available from the Wholesale Supplier to the Supplier during various water year types.	Plan preparation	2-4 W	n/a
x	x	Chapter 3.0	10631(a)	Describe the Supplier service area.	System description	n/a	Chapter 3.0
x	x	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	System description	n/a	Section 3.3
x	x	Section 3.4.1	10631(a)	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	System description	3-1	Section 3.4.1
x	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the Supplier's water management planning.	System description	n/a	Section 3.4.2
x	x	Section 3.5	10631(a)	Describe the land uses within the service area and include the current and projected land uses within the existing or anticipated service area affecting the Supplier's water management planning. Describe the land uses within the service area.	System description and baselines	n/a	Section 3.5
x	Optional	Sections 4.2.3 and 4.2.4	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System water use	4-1 and 4-2	Sections 4.2.3 and 4.2.4
x	Optional	Section 4.3.1	10631(d)(3)(A)	Report the distribution system water loss for each of the five years preceding the plan update.	System water use	4-5	Section 4.3.1
x	n/a	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	System water use	4-6	Section 4.3.2

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	n/a	Section 4.2.5.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the Supplier.	System water use	4-3	Section 4.2.5.4
x	n/a	Section 4.2.5.3	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System water use	4-3	Section 4.2.5.3
x	n/a	Section 4.2.5.3	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System water use	4-3	Section 4.2.5.3
x	n/a	Section 4.2.5.3	10631(d)(4)(B)(ii)	To the extent that a Supplier reports the information described in subparagraph (A), an urban water Supplier shall… Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.	System water use	4-3	Section 4.2.5.3
x	x	Section 4.2.5.6	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System water use	n/a	Section 4.2.5.6
n/a	x	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	Baselines and targets	n/a	n/a
x	n/a	Section 5.2	10608.40	Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier: Was considered an urban retail water supplier in 2020, Met its 2020 target in 2020, or Was part of a merger or consolidation since 2020. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	Baselines and targets	5-1	Section 5.2
x	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System supplies	n/a	Section 6.1
x	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, including changes in supply due to climate change.	System supplies	n/a	Sections 6.1 and 6.2
x	x	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	Water supplies and recycled water	6-1	Section 6.2.2
x	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the Supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System supplies	n/a	Section 6.2.2
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System supplies	n/a	Section 6.2.2
x	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the Supplier has the legal right to pump.	System supplies	n/a	Section 6.2.2
x	x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… (include) information as to whether DWR has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin…	Water supplies and recycled water	n/a	Section 6.2.2
x	x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water supplies and recycled water	n/a	Section 6.2.2
x	x	Section 6.2.2.	10631(b)(4)(C)	If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	System supplies	n/a	Section 6.2.2.
x	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System supplies	6-9	Section 6.2.2

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	x	Section 6.1	10631(b)	Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	System supplies	6-8 and 6-9	Section 6.1
x	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System supplies	n/a	Section 6.2.7
x	n/a	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the Supplier's service area with quantified amount of collection and treatment and the disposal methods.	System supplies (recycled water)	6-2	Section 6.2.5
x	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System supplies (recycled water)	6-3	Section 6.2.5
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the Supplier's service area.	System supplies (recycled water)	6-4	Section 6.2.5
x	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System supplies (recycled water)	6-4	Section 6.2.5
x	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	System supplies (recycled water)	6-4 and 6-5	Section 6.2.5
x	x	Section 6.2.5	10633(f)	Describe the actions that may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System supplies (recycled water)	6-6	Section 6.2.5
x	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the Supplier's service area.	System supplies (recycled water)	n/a	Section 6.2.5
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System supplies	6-7	Section 6.2.6
x	x	Section 6.2.10	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water Supplier to address water supply reliability in average, single-dry, and for a period of drought lasting five consecutive water years.	System supplies	6-7	Section 6.2.10
x	x	Section 6.3 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a Supplier can readily obtain.	System suppliers, energy intensity	O-1A, O-1B, O-1C, and O2	Section 6.3 and Appendix O
x		Section 7.1	10634	Provide information on the quality of existing sources of water available to the Supplier and the manner in which water quality affects water management strategies and supply reliability.	Water supply reliability assessment	n/a	Section 7.1
x	x	Section 7.2	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the Supplier with the total projected water use over the next 20 years.	Water supply reliability assessment	7-2, 7-3, and 7-4	Section 7.2
x	x	Section 7.2.3	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water supply reliability assessment	n/a	Section 7.2.3
x	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water supply reliability assessment	n/a	Section 7.3
x	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive years.	Water supply reliability assessment	n/a	Section 7.3

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water supply reliability assessment	n/a	Section 7.3
x	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	Water supply reliability assessment	7-5	Section 7.3
x	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water supply reliability assessment	n/a	Section 7.3
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water shortage contingency planning	n/a	Chapter 8
x	x	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water shortage contingency planning	n/a	Chapter 8
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	Water shortage contingency planning	n/a	Section 8.2
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the Supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water shortage contingency planning	n/a	Section 8.2
x	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10%, 20%, 30%, 40%, 50% shortage, and greater than 50% shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water shortage contingency planning	n/a	Section 8.3
x	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	Water shortage contingency planning	8-1	Section 8.3
x	x	Section 8.4	10632(a)(4)(A)	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water shortage contingency planning	8-2	Section 8.4
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water shortage contingency planning	8-3	Section 8.4
x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water shortage contingency planning	8-2	Section 8.4
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	Water shortage contingency planning	Table 8-3	Section 8.4
x	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water shortage contingency planning	8-2 and 8-3	Section 8.4
x	x	Section 8.4.6	10632.5	The UWMP shall include a seismic risk assessment and mitigation plan.	Water shortage contingency planning	n/a	Section 8.4.6
x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water shortage contingency planning	n/a	Section 8.5
x	x	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water shortage contingency planning	n/a	Section 8.5

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	n/a	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water shortage contingency planning	n/a	Section 8.6
x	x	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water shortage contingency planning	n/a	Section 8.7
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. *Water Shortage Emergencies*.	Water shortage contingency planning	n/a	Section 8.7
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water shortage contingency planning	n/a	Section 8.7
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Section 8.8
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	Section 8.8
x	n/a	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, *Excessive Residential Water Use During Drought*.	Water shortage contingency planning	n/a	Section 8.8
x	n/a	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water shortage contingency planning	n/a	Section 8.9
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water shortage contingency planning	n/a	Section 8.10
x	n/a	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water shortage contingency planning	n/a	Section 8.11
x	x	Section 8.12	10632(c)	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	Water shortage contingency planning	n/a	Section 8.12
x	n/a	Sections 9.1	10631(e)(1)	Retail Suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand management measures	n/a	Sections 9.1
n/a	x	Sections 9.2	10631(e)(2)	Wholesale Suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and Supplier assistance program.	Demand management measures	n/a	n/a
x	n/a	Chapter 10	10608.26(a)	Retail Suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan adoption, submittal, and implementation	n/a	Chapter 10
x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the Supplier provides water that the Supplier will be reviewing the UWMP and considering amendments or changes to the plan.	Plan adoption, submittal, and implementation	10-1	Section 10.2
x	x	Section 10.4	10621(f)	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 2026.	Plan adoption, submittal, and implementation	n/a	Section 10.4
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the Supplier made the UWMP and WSCP available for public inspection, published notice of the public hearing, and held a public hearing about the UWMP and WSCP.	Plan adoption, submittal, and implementation	n/a	Sections 10.2.2, 10.3, and 10.5

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	x	Section 10.2.2	10642	The Supplier is to provide the time and place of the hearing to any city or county within which the Supplier provides water.	Plan adoption, submittal, and implementation	10-1	Section 10.2
x	x	Section 10.3.2	10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan adoption, submittal, and implementation	n/a	Section 10.3
x	x	Section 10.4	10644(a)	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	Plan adoption, submittal, and implementation	n/a	Section 10.4
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the Supplier has submitted their UWMP to any city or county within which the Supplier provides water no later than 30 days after adoption.	Plan adoption, submittal, and implementation	n/a	Section 10.4
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	Plan adoption, submittal, and implementation	n/a	Sections 10.4 and 10.4
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	Plan adoption, submittal, and implementation	n/a	Section 10.7
x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 10.5
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its WSCP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 10.5
x	x	Section 10.6	10621(c)	If Supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan adoption, submittal, and implementation	n/a	Section 10.6

Appendix E Water Loss Calculator

AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association

? Click to access definition

+ Click to add a comment

Water Audit Report for: Las Virgenes Municipal Water District (1910225)

Reporting Year: 2020 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ----------> Pcnt: Value:

Volume from own sources:	n/a		acre-ft/yr						acre-ft/yr
Water imported:	7	20,701.100	acre-ft/yr		3			779.500	acre-ft/yr
Water exported:	n/a		acre-ft/yr						acre-ft/yr
WATER SUPPLIED:		**19,921.600**	acre-ft/yr						

Enter negative % or value for under-registration

Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	8	18,931.500	acre-ft/yr			
Billed unmetered:	n/a		acre-ft/yr			
Unbilled metered:	n/a		acre-ft/yr			
Unbilled unmetered:	8	0.340	acre-ft/yr		0.340	acre-ft/yr
AUTHORIZED CONSUMPTION:		**18,931.840**	acre-ft/yr			

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption) **989.760** acre-ft/yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:	5	49.804	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	191.227	acre-ft/yr	1.00%		acre-ft/yr
Systematic data handling errors:	5	47.329	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **288.360** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **701.400** acre-ft/yr

WATER LOSSES: **989.760** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **990.100** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	10	406.5	miles
Number of active AND inactive service connections:	10	19,858	
Service connection density:		49	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 7 119.0 psi

COST DATA

Total annual cost of operating water system:	10	$36,723,139	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$3.69	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	8	$1,175.85	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 72 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported

2: Customer metering inaccuracies

3: Unauthorized consumption

AWWA Free Water Audit Software: Worksheet

FWAS v6.0
American Water Works Association.

Water Audit Report for: Las Viegenes Municipal Water District
Audit Year: 2021 | Jan 01 2021 - Dec 31 2021 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	n	g	n/a	0.000	Acre-ft/Yr					VOSEA
WI	Water Imported:	n	g	6	20,160.560	Acre-ft/Yr	n	g	4	volume 0.000 acre-ft/yr	WIEA
WE	Water Exported:	n	g	n/a	0.000	Acre-ft/Yr					WEEA
	WATER SUPPLIED:				20,160.560	Acre-ft/Yr					

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	19,631.555	Acre-ft/Yr					
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr					
UMAC	Unbilled Metered:	n	g	n/a	0.000	Acre-ft/Yr					
UUAC	Unbilled Unmetered:	n	g	5	0.152	Acre-ft/Yr				custom 0.152 acre-ft/yr	
	AUTHORIZED CONSUMPTION:				19,631.707	Acre-ft/Yr					

WATER LOSSES

528.853 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	49.079	Acre-ft/Yr	0.25%	default
CMI	Customer Metering Inaccuracies:	n	g	3	198.299	Acre-ft/Yr	1.00%	percent
UC	Unauthorized Consumption:	n	g	3	49.079	Acre-ft/Yr	0.25%	default

under-registration

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 296.456 Acre-ft/Yr

Real Losses

Real Losses: 232.396 Acre-ft/Yr

WATER LOSSES: 528.853 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 529.005 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	412.1	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	21,192		(active *and* inactive)
	Service connection density:				51	conn./mile main	
	Are customer meters typically located at the curbstop/property line?				Yes		
Lp		n	g	10			

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP	Average Operating Pressure:	n	g	8	119.0	psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	7	$5.19	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$1,144.45	$/acre-ft	$43,435,377	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Water Imported (WI)
2: Customer Metering Inaccuracies (CMI)
3: Billed Metered (BMAC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0

American Water Works Association.

Water Audit Report for: Las Virgenes Municipal Water District

Audit Year: 2022 | Jan 01 2022 - Dec 31 2022 | Calendar

Click 'n' to add notes

Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	n	g	n/a	0.000	Acre-ft/Yr					VOSEA
WI	Water Imported:	n	g	6	13,419.700	Acre-ft/Yr	n	g	4	volume 1,269.500 acre-ft/yr	under-registration WIEA
WE	Water Exported:	n	g	n/a	0.000	Acre-ft/Yr					WEEA
	WATER SUPPLIED:				14,689.200	Acre-ft/Yr					

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	13,400.598	Acre-ft/Yr					
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr					
UMAC	Unbilled Metered:	n	g	n/a	0.000	Acre-ft/Yr					
UUAC	Unbilled Unmetered:	n	g	5	0.090	Acre-ft/Yr				custom 0.090 acre-ft/yr	
	AUTHORIZED CONSUMPTION:				13,400.688	Acre-ft/Yr					

WATER LOSSES

1,288.512 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	33.501	Acre-ft/Yr	0.25%	default
CMI	Customer Metering Inaccuracies:	n	g	3	135.360	Acre-ft/Yr	1.00%	percent
UC	Unauthorized Consumption:	n	g	3	33.501	Acre-ft/Yr	0.25%	default

under-registration

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 202.363 Acre-ft/Yr

Real Losses

Real Losses: 1,086.149 Acre-ft/Yr

WATER LOSSES: 1,288.512 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 1,288.602 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	414.9	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	21,465		(active *and* inactive)
	Service connection density:				52	conn./mile main	
	Are customer meters typically located at the curbstop/property line?				Yes		
Lp		n	g	10			

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP	Average Operating Pressure:	n	g	8	119.0	psi	

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	7	$5.82	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$1,363.75	$/acre-ft	$34,014,271	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Water Imported (WI)

2: Customer Metering Inaccuracies (CMI)

3: Billed Metered (BMAC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	12.8	gal/conn/day
Unit Real Losses[A]:	13.6	gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0
American Water Works Association.

Water Audit Report for: Las Virgenes Municipal Water District
Audit Year: 2023 | Jan 01 2023 - Dec 31 2023 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	n	g	n/a	0.000	Acre-ft/Yr					VOSEA
WI	Water Imported:	n	g	6	15,287.700	Acre-ft/Yr	n	g	4	volume 1,171.900 acre-ft/yr	over-registration WIEA
WE	Water Exported:	n	g	n/a	0.000	Acre-ft/Yr					WEEA
	WATER SUPPLIED:				14,115.800	Acre-ft/Yr					

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	8	12,701.731	Acre-ft/Yr					
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr					
UMAC	Unbilled Metered:	n	g	n/a	0.000	Acre-ft/Yr					
UUAC	Unbilled Unmetered:	n	g	8	25.040	Acre-ft/Yr				custom 25.040 acre-ft/yr	
	AUTHORIZED CONSUMPTION:				12,726.771	Acre-ft/Yr					

WATER LOSSES

1,389.029 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	31.754	Acre-ft/Yr				0.25% default	
CMI	Customer Metering Inaccuracies:	n	g	3	128.300	Acre-ft/Yr				1.00% percent	under-registration
UC	Unauthorized Consumption:	n	g	3	31.754	Acre-ft/Yr				0.25% default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 191.809 Acre-ft/Yr

Real Losses

Real Losses: 1,197.220 Acre-ft/Yr

WATER LOSSES: 1,389.029 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 1,414.069 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	414.5	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	22,097		(active *and* inactive)
	Service connection density:				53	conn./mile main	
	Are customer meters typically located at the curbstop/property line?				Yes		
Lp		n	g	10			

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP	Average Operating Pressure:	n	g	9	119.0	psi	

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	7	$6.83	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$1,349.47	$/acre-ft	$32,607,062	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Water Imported (WI)
2: Customer Metering Inaccuracies (CMI)
3: Billed Metered (BMAC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	12.8	gal/conn/day
Unit Real Losses[A]:	13.6	gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0

American Water Works Association.

Water Audit Report for: Las Virgenes Municipal Water District

Audit Year: 2024 | Jan 01 2024 - Dec 31 2024 | Calendar

Click 'n' to add notes

Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

WATER SUPPLIED

Water Supplied Error Adjustments

									choose entry option:				
VOS	Volume from Own Sources:	n	g	3	1,161.130	Acre-ft/Yr	n	g	10	volume	0.000	acre-ft/yr	VOSEA
WI	Water Imported:	n	g	6	14,456.700	Acre-ft/Yr	n	g	4	volume	1.600	acre-ft/yr	under-registration WIEA
WE	Water Exported:	n	g	n/a	0.000	Acre-ft/Yr							WEEA
	WATER SUPPLIED:				15,619.430	Acre-ft/Yr							

AUTHORIZED CONSUMPTION

										choose entry option:			
BMAC	Billed Metered:	n	g	8	13,764.157	Acre-ft/Yr							
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr							
UMAC	Unbilled Metered:	n	g	n/a	0.000	Acre-ft/Yr							
UUAC	Unbilled Unmetered:	n	g	8	34.912	Acre-ft/Yr				custom	34.912	acre-ft/yr	
	AUTHORIZED CONSUMPTION:				13,799.069	Acre-ft/Yr							

WATER LOSSES

1,820.361 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

								choose entry option:		
SDHE	Systematic Data Handling Errors:	n	g	3	34.410	Acre-ft/Yr	0.25%	default		
CMI	Customer Metering Inaccuracies:	n	g	3	139.032	Acre-ft/Yr	1.00%	percent		under-registration
UC	Unauthorized Consumption:	n	g	3	34.410	Acre-ft/Yr	0.25%	default		

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 207.853 Acre-ft/Yr

Real Losses

Real Losses: 1,612.508 Acre-ft/Yr

WATER LOSSES: 1,820.361 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 1,855.273 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	413.6	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	22,040		(active *and* inactive)
	Service connection density:				53	conn./mile main	
	Are customer meters typically located at the curbstop/property line?				Yes		
Lp		n	g	10			

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP	Average Operating Pressure:	n	g	9	119.0	psi	

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	7	$7.32	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$1,282.33	$/acre-ft	$38,538,259	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Water Imported (WI)

2: Customer Metering Inaccuracies (CMI)

3: Billed Metered (BMAC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:	23.0	gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.1
American Water Works Association.

Water Audit Report for: Las Virgenes Municipal Water District
Audit Year: 2025 | Jan 01 2025 - Dec 31 2025 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	n	g	437.260	Acre-ft/Yr	n	g	percent		VOSEA
WI	Water Imported:	n	g	15,282.900	Acre-ft/Yr	n	g	volume	10.100 acre-ft/yr	under-registration WIEA
WE	Water Exported:	n	g	0.000	Acre-ft/Yr					WEEA
	WATER SUPPLIED:			15,730.260	Acre-ft/Yr					

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	14,456.577	Acre-ft/Yr			
BUAC	Billed Unmetered:	n	g	0.000	Acre-ft/Yr			
UMAC	Unbilled Metered:	n	g	0.000	Acre-ft/Yr			
UUAC	Unbilled Unmetered:	n	g	49.166	Acre-ft/Yr	custom	49.166	acre-ft/yr
	AUTHORIZED CONSUMPTION:			14,505.743	Acre-ft/Yr			

WATER LOSSES

1,224.517 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	36.141	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g		146.026	Acre-ft/Yr	1.00%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	36.141	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 218.309 Acre-ft/Yr

Real Losses

Real Losses: 1,006.208 Acre-ft/Yr

WATER LOSSES: 1,224.517 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 1,273.683 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g		miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g			(active *and* inactive)
	Service connection density:				conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp: n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP: Average Operating Pressure: n g 119.0 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g			Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g		$/acre-ft		$/yr (optional input)

Click here to calculate carbon emissions ---> carbon

WATER AUDIT DATA VALIDITY TIER:

Click 'g' for 11 parameter(s), then complete all visible data grading questions to enable the Data Validity Score to calculate

go to dashboard

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

Appendix F LVMWD Hazard Mitigation Plan

The 2025 Hazard Mitigation Plan can be found online at: https://www.lvmwd.gov/hazard-mitigation-plan

Appendix G Reduced Delta Reliance Reporting

1.0 Background

Under the Sacramento-San Joaquin Delta Reform Act of 2009, state and local public agencies proposing a covered action in the Delta, prior to initiating the implementation of that action, must prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with applicable Delta Plan policies and submit that certification to the Delta Stewardship Council. Anyone may appeal a certification of consistency, and if the Delta Stewardship Council grants the appeal, the covered action may not be implemented until the agency proposing the covered action submits a revised certification of consistency, and either no appeal is filed, or the Delta Stewardship Council denies the subsequent appeal.

An urban water supplier that anticipates participating in or receiving water from a proposed covered action such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Delta should provide information in their 2015 and subsequent Urban Water Management Plans (UWMPs) that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (WR P1).

WR P1 details what is needed for a covered action to demonstrate consistency with reduced reliance on the Delta and improved regional self-reliance. WR P1 subsection (a) states that:

(a) Water shall not be exported from, transferred through, or used in the Delta if all of the following apply:

1) *One or more water suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph (1) of subsection (c);*
2) *That failure has significantly caused the need for the export, transfer, or use; and*
3) *The export, transfer, or use would have a significant adverse environmental impact in the Delta.*

WR P1 subsection (c)(1) further defines what adequately contributing to reduced reliance on the Delta means in terms of (a)(1) above.

(c)(1) Water suppliers that have done all the following are contributing to reduced reliance on the Delta and improved regional self-reliance and are therefore consistent with this policy:

A. *Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8; watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).*

B. *Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and*
C. *Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in*

> *Delta reliance and improvement in regional self-reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance shall be reported in the Plan as the reduction in the amount of water used, or in the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).*

The analysis and documentation provided below include all of the elements described in WR P1(c)(1) that need to be included in a water supplier's UWMP to support a certification of consistency for a future covered action.

2.0 Summary of Expected Outcomes for Reduced Reliance on the Delta

As stated in WR P1(c)(1)(C), the policy states that, commencing in 2015, UWMPs include expected outcomes for measurable reduction in Delta reliance and improved regional self-reliance. WR P1 further states that those outcomes shall be reported in the UWMP as the reduction in the amount of water used, or in the percentage of water used, from the Delta.

MWD reports the expected outcomes for reduced reliance on the Delta in its 2025 UWMP on a regionwide scale that includes its Member Agencies. From its 2010 baseline, both long-term Regional Self Reliance and Reduced Reliance on Supplies from the Delta Watershed are expected to increase over time.

The following provides a summary of the near-term (2030) and long-term (2045) expected outcomes for the District Delta reliance and regional self-reliance. The results show the District is measurably reducing reliance on the Delta and improving regional self-reliance, both as an amount of water used and as a percentage of water used.

2.1 Expected Outcomes for Regional Self-Reliance

- Near-term (2030) – Normal water year regional self-reliance is expected to increase by 601 TAF from the 2010 baseline; this represents an increase of almost 20 percent of 2030 normal water year retail demands (Table G-3)
- Long-term (2045) – Normal water year regional self-reliance is expected to increase by more than 1.02 MAF from the 2010 baseline, this represents an increase of more than 20 percent of 2050 normal water year retail demands (Table G-3)

3.0 Demonstration of Reduced Reliance on the Delta

The methodology used to determine the District's Delta reliance and improved regional self-reliance is consistent with the approach detailed in DWR's UWMP Guidebook Appendix C, including the use of narrative justifications for the accounting of supplies and the documentation of specific data sources. Some of the key assumptions underlying these analyses include:

- All data were obtained from the current 2025UWMP or previously adopted UWMPs and represent average or normal water year conditions.

- All analyses were conducted at the service area level, and all data reflect the total contributions of the District and in conjunction with the information provided by MWD. No projects or programs that are described in the UWMPs as “Projects Under Development” were included in the accounting of supplies.

3.1 Baseline Calculations

In order to compare current or future Delta water use, a supplier will need to calculate a baseline. The baseline is calculated in accordance with the approach detailed in DWR’s UWMP Guidebook Appendix C.

The demand and water use efficiency data shown in Table G-1 were collected from the following sources:

- Baseline (2010) values – LVMWD’s 2005 UWMP
- 2015 values – LVMWD’s 2010 UWMP
- 2020 values – LVMWD’s 2015 UWMP
- 2025 values – LVMWD’s 2020 UWMP
- 2030-2050 values – LVMWD’s 2025 UWMP

It should be noted that the results of this calculation differ from what the District calculated under the 2025 UWMP Chapter 3 pertaining to the Water Conservation Act of 2009 (SB X7-7) due to differing formulas.

Table G-1: Calculation of Water Use Efficiency

Service Area Water Use Efficiency Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
Service Area Water Demands with Water Use Efficiency Accounted For	24,010	23,951	22,543	19,190	16,604	17,582	18,618	19,714
Non-Potable Water Demands								
Potable Service Area Demands with Water Use Efficiency Accounted For	24,010	23,951	22,543	19,190	16,604	17,582	18,618	19,714

Total Service Area Population	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
Service Area Population	75,625	77,285	71,768	76,769	82,748	87,933	93,119	98,305

Water Use Efficiency Since Baseline (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
Per Capita Water Use (GPCD)	283	277	280	223	179	179	178	179
Change in Per Capita Water Use from Baseline (GPCD)		(7)	(3)	(60)	(104)	(105)	(105)	(104)
Estimated Water Use Efficiency Since Baseline		586	242	5,183	9,667	10,336	10,946	11,497

Table G-2: Calculation of Service Area Water Demands Without Water Use Efficiency

Total Service Area Water Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
Service Area Water Demands with Water Use Efficiency Accounted For	24,010	23,951	22,543	19,190	16,604	17,582	18,618	19,714
Reported Water Use Efficiency or Estimated Water Use Efficiency Since Baseline		586	242	5,183	9,667	10,336	10,946	11,497
Service Area Water Demands without Water Use Efficiency Accounted For	24,010	24,537	22,785	24,373	26,271	27,918	29,564	31,211

4.0 Water Supplies Contributing to Regional Self-Reliance

For a covered action to demonstrate consistency with the Delta Plan, WR P1(c)(1) states that water suppliers must report the expected outcomes for measurable improvement in regional self-reliance. Table G-3 shows expected outcomes for supplies contributing to regional self-reliance both in amount and as a percentage. The numbers shown in Table G-3 represent efforts to improve regional self-reliance for the District's service area.

Supporting narratives and documentation for the data shown in Table G-3 are provided below:

Water Use Efficiency

The water use efficiency information shown in Table G-3 is taken directly from Chapter 4 of LVMWD's 2025 UWMP.

Table G-3: Calculation of Supplies Contributing to Regional Self-Reliance

Water Supplies Contributing to Regional Self-Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
Water Use Efficiency		586	242	5,183	9,667	10,336	10,946	11,497
Water Recycling								
Stormwater Capture and Use								
Advanced Water Technologies								
Conjunctive Use Projects								
Local and Regional Water Supply and Storage Projects								
Other Programs and Projects the Contribute to Regional Self-Reliance								
Water Supplies Contributing to Regional Self-Reliance	-	586	242	5,183	9,667	10,336	10,946	11,497

Service Area Water Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
Service Area Water Demands without Water Use Efficiency Accounted For	24,010	24,537	22,785	24,373	26,271	27,918	29,564	31,211

Change in Regional Self Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
Water Supplies Contributing to Regional Self-Reliance	-	586	242	5,183	9,667	10,336	10,946	11,497
Change in Water Supplies Contributing to Regional Self-Reliance		586	242	5,183	9,667	10,336	10,946	11,497

Percent Change in Regional Self Reliance (As Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
Percent of Water Supplies Contributing to Regional Self-Reliance	0.0%	2.4%	1.1%	21.3%	36.8%	37.0%	37.0%	36.8%
Change in Percent of Water Supplies Contributing to Regional Self-Reliance		2.4%	1.1%	21.3%	36.8%	37.0%	37.0%	36.8%

5.0 UWMP IMPLEMENTATION

In addition to the analysis and documentation described above, WR P1 subsection (c)(1)(B) requires that all programs and projects included in the UWMP that are locally cost-effective and technically feasible, which reduce reliance on the Delta, are identified, evaluated, and implemented consistent with the implementation schedule. WR P1 (c)(1)(B) states that:

A. Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta

In accordance with Water Code Section 10631(f), water suppliers must already include in their UWMP a detailed description of expected future projects and programs that they may implement to increase the amount of water supply available to them in normal and single-dry water years and for a period of drought lasting five consecutive years. The UWMP description must also identify specific projects, include a description of the increase in water supply that is expected to be available from each project, and include an estimate regarding the implementation timeline for each project or program.

Chapter 6 – Future Water Projects of the District UWMP summarizes the implementation plan and continued progress in developing a diversified water portfolio to meet the District's water needs.

AGENDA ITEM NO. 9.B

DATE: April 7, 2026

TO: Board of Directors

FROM: External Affairs

SUBJECT: Enforcement Measures for Water Theft and Unauthorized Water Use: Introduction, Public Hearing and First Reading

---

SUMMARY:

On October 10, 2025, Governor Gavin Newsom approved Senate Bill No. 394, revising fines that a water agency may charge in the event of water theft or unauthorized water usage. Senate Bill No. 394 was co-sponsored by the District and became effective on January 1, 2026. Staff proposes updates to the Las Virgenes Municipal Water District Code to reflect the new fines and ensure that District's enforcement practices are aligned with state law. Proposed Ordinance No. 291 will update the Las Virgenes Municipal Water District Code to incorporate the provisions of Senate Bill No. 394 and more effectively deter water theft and unauthorized water usage.

RECOMMENDATION(S):

Conduct a public hearing, introduce, waive the full reading, and call for first reading by title only for proposed Ordinance No. 291 as it relates to enforcement measures for water theft and unauthorized water use.

ORDINANCE NO. 291

AN ORDINANCE OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT AS IT RELATES TO ENFORCEMENT MEASURES FOR WATER THEFT AND UNAUTHORIZED WATER USE.

(Reference is hereby made to Ordinance No. 291 on file in the District's Ordinance Book and by this reference the same is incorporated herein.)

FINANCIAL IMPACT:

There is no financial impact associated with this action.

DISCUSSION:

Due the approval of Senate Bill No. 394 that became effective on January 1, 2026, staff recommends that the Board update the Las Virgenes Municipal Water District Code (Code) to reflect the new fines and ensure that District's enforcement practices are aligned with state law.

Following is a summary of specific revisions and/or clarifications:

- When it is found that a fire service or a fire hydrant has been used for any purpose other than for fire suppression, or when there has been unauthorized use of a fire hydrant, fire hydrant meter, fire detector check, or a single check service that exceeds the allowable capacity of the bypass meter, the District may charge an administrative penalties as set forth in Section 7-2.102 of the Code.

- If the General Manager determines that leakage has occurred, totaling more than 15 units of water per period during three consecutive billing periods to the customer's fire service or fire hydrant, the customer shall be required either to present satisfactory evidence that the leakage has been fixed, or the customer must remove the detector check valve and purchase a water meter of the appropriate size. If the customer chooses to purchase a water meter, the customer shall pay all fees and charges normally associated with the purchase of the meter.

- Water theft is prohibited. Each act of water theft constitutes a misdemeanor. The District may report any water theft to the appropriate prosecuting agency and press charges for prosecution of said activity pursuant to the California Penal Code. In addition to pursuing criminal penalties, the District may, upon discovering water theft, also pursue other remedies available by law.

- In addition to any other remedies under applicable law, the District may seek injunctive relief in the Superior Court or take enforcement action. All remedies provided shall be cumulative and not exclusive.

- The District shall calculate the amount of any damages and penalties to be imposed, and shall send a bill to the customer or, if the offender is not a customer of record, an invoice for payment of damages or penalties may be sent to the offender, water user, or recipient.

- The District's General Manager may grant hardship waivers to reduce the amount of the fine imposed for water theft upon a showing by the responsible party the payment of the full amount of the fine would impose an undue financial burden on the responsible party. Requests for a hardship waiver must be submitted within ten (10) days of receiving the Notice of Violation. Such waivers may be granted only upon written application. Upon granting such a waiver, the District's General Manager may impose any conditions he or she determines to be just and proper.

GOALS:

Provide Excellent Services that Exceed Customer's Expectation

Prepared by: Ursula Bosson, Customer Service Manager

ATTACHMENTS:
Proposed Ordinance No. 291
Redlined Version of Update to LVMWD Code

ORDINANCE NO. 291

AN ORDINANCE OF THE LAS VIRGENES MUNICIPAL WATER DISTRICT COUNTY OF LOS ANGELES, STATE OF CALIFORNIA PROHIBITING WATER THEFT, UNAUTHORIZED USE, AND TAMPERING

WHEREAS, Las Virgenes Municipal Water District ("District") is organized under the Municipal Water District Act of 1911 and is classified as a district;

WHEREAS, under California Water Code Section 71600-71601, a municipal water district is authorized to adopt and enforce ordinances establishing rules and regulations for the water it delivers;

WHEREAS, under, California Government Code Section 61060(b), the District is authorized to adopt and enforcement by ordinance rules and regulations related to its water service powers;

WHEREAS, the District is further authorized by California Government Code Section 61064(a) to declare violations of its ordinances to be misdemeanors pursuant to Section 19 of the California Penal Code;

WHEREAS, California Penal Code Section 498 prohibits the theft of utility services, including water;

WHEREAS, California Penal Code Section 624 prohibits every person from willfully damaging, tampering with, or digging up water pipes or waterworks;

WHEREAS, California Penal Code Section 625 prohibits every person who, with intent to defraud or injure, opens or causes to be opened, or draws water from any disconnected utility connection after having been notified that the same has been closed or shut for specific cause, by order of competent authority;

WHEREAS, any person who violates California Penal Code Sections 498, 624, or 625 is guilty of a misdemeanor;

WHEREAS, California Civil Code Section 1882 et seq. authorizes the Las Virgenes Municipal Water District ("District") to bring a civil action for damages against any person who commits, authorizes, solicits, aids, abets, or attempts any of the following acts:

(a) Diverts, or causes to be diverted, water services by any means whatsoever;
(b) Makes, or causes to be made, any connection or reconnection with property owned or used by the District to provide water service without the authorization or consent of the District;
(c) Prevents any District meter, or other device used in determining the charge for water services, from accurately performing its measuring function by tampering or by any other means;
(d) Tampers with any property owned or used by the District to provide water services; or
(e) Uses or receives the direct benefit of all, or a portion, of the water service with knowledge of, or reason to believe that the diversion, tampering, or unauthorized connection existed at the time of the use, or that the use or receipt, was without the authorization or consent of the District;

WHEREAS, pursuant to California Government Code Section 53069.4, the District may, by ordinance, make the violation of any ordinance enacted by its Board of Directors subject to a civil administrative fine or penalty;

WHEREAS, pursuant to California Government Code Section 53069.45, the District may, by ordinance, make the violation of any ordinance enacted by its Board of Directors subject to a civil administrative fine or penalty;

WHEREAS, Article X, Section 2, of the California Constitution declares that the general welfare requires that water resources be put to beneficial use; waste or unreasonable use, or unreasonable method of use, of water be prevented; and conservation of water be fully exercised with a view to the reasonable and beneficial use thereof;

WHEREAS, pursuant to AB 2505, which amended Section 53069.45 to the California Government Code, the District may adopt an ordinance that prohibits water theft, subject to an administrative fine or penalty for violation of that ordinance;

WHEREAS, because water is a vital resource, the District has determined that it is appropriate to impose civil administrative fines for the theft of water to protect this vital resource;

WHEREAS, the District's Board of Directors finds that this Ordinance is in the best interest of the District to protect the health, safety and welfare of the community; and

WHEREAS, the District's Board of Directors finds that this Ordinance is consistent with state law and the policies of the District.

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

Section 1. Recitals.

The District hereby finds and determines that the above recitals are true and correct and are incorporated herein.

Section 2. Amendment of Unauthorized Fire Hydrant Use Regulations

The Board of Directors hereby amends the Las Virgenes Municipal Water District Municipal Code ("Code") to repeal and replace Section 3.-4.203 of Title 3 to read as set forth below.

"§ 3-4.203Unauthorized Use of Fire Hydrants.

(a) Except as provided herein, no person shall use water from a fire hydrant for any purpose other than fire suppression.

(b) Temporary service may be provided through a fire hydrant under Section 3-2.210. If a customer does not apply for and receive permission from the District to utilize a hydrant for any stated purpose prior to use of the hydrant, the use of water from the hydrant shall be subject to the penalties set forth in Section 7-2.102 of this Code.

(c) Water may be used to maintain or test a fire sprinkler system. Authorization to use water through a fire service connection for the purpose of maintaining or testing a fire sprinkler system will be granted up to four times per year with advance notification to the District. Exceptions may be made upon the estimated quantity of water to be used. The General Manager may restrict or prohibit such non-emergency flows as may be detrimental to the District's system.

(d) When it is found that a fire service or a fire hydrant has been used for any purpose other than for suppression, or if there has been unauthorized use of a fire hydrant, fire hydrant meter, or fire detector check, or a single service has exceeded the allowable capacity of the by-pass meter, the District may charge an administrative penalty as set forth in Section 7-2.102 of this Code.

If the General Manager determines that leakage has occurred, the General Manager shall notify the customer of the usage and encourage customer to fix the leak.

If the General Manager determines that leakage has occurred, totaling more than 15 units of water per period during three consecutive billing periods to the customer's fire service or fire hydrant, the customer shall be required either to present satisfactory evidence that the leakage has been fixed, or he must remove the detector check valve and purchase a water meter of the appropriate size. If the customer chooses to purchase a water meter, the customer shall pay all fees and charges normally associated with the purchase of the meter.

(e) If repeated unauthorized use of a fire service or hydrant occurs, the General Manager shall notify the fire department and the occupant of the properties served by the fire

service or fire hydrant that within 10 days the fire service or fire hydrant shall be disconnected until all charges for each violation have been paid and until assurances, satisfactory to the General Manager, have been given that no further unauthorized use will occur."

Section 3. Adoption of Water Theft Regulations and Administrative Penalties.

The Board of Directors hereby amends the Las Virgenes Municipal Water District Municipal Code ("Code") to add Chapter 7-2 to Title 7 to read as set forth below.

"Section 7-2 Water Theft Penalties (§7-2.101 - §7-2.107)

Section 7-2.101 Definitions

The following definitions shall be used to interpret the provisions of this Chapter in addition to the definitions set forth elsewhere in this Code.

(a) "Water theft" means an action to divert, tamper, or reconnect water utility services, as defined in Section 498 of the Penal Code, and includes all of the following:

1. Diverting or causing to be diverted any District services, by any means.
2. Preventing any utility meter, or other device used in determining the charge for services, from accurately performing its measuring function by tampering or by any other means.
3. Tampering with any property owned by or used by the District to provide services.
4. Making or causing to be made any connection with or reconnection with property owned or used by the District to provide services without the authorization or consent of the District.
5. Using or receiving the direct benefit of all or a portion of water utility services with knowledge or reason to believe that the diversion, tampering, or unauthorized connection existed at the time of that use, or that the use or receipt was otherwise without the authorization or consent of the District; and,
6. Unauthorized use of a fire hydrant for any purpose other than active firefighting.

(b) "Divert" means to change the intended course or path of water or sewer without the authorization or consent of the District.

(c) "Tamper" means to rearrange, injure, alter, interfere with, or otherwise prevent from performing a normal or customary function.

(d) "Reconnection" means the reconnection of service by a customer or other person after service has been lawfully disconnected by the District.

Section 7-2.102 Administrative Penalties

Water theft is prohibited. Each act of water theft constitutes a misdemeanor. The District may report any water theft to the appropriate prosecuting agency and press for prosecution of said activity pursuant to the Penal Code. In addition to pursuing criminal penalties, the District may, upon discovering water theft, also pursue the following remedies or other remedies available at law or equity:

(a) If water theft is committed by meter tampering, the customer or perpetrator will be charged an administrative penalty of up to:

1. $130 for the first violation.
2. $700 for the second violation within a one-year period of the first violation.
3. $1,300 for each violation thereafter within a one-year period of the first violation.

(b) If water theft is committed by any means other than meter tampering, the customer or perpetrator will be charged an administrative penalty of up to:

1. $1,000 for the first violation.
2. $2,000 for the second violation within a one-year period of the first violation.
3. $3,000 for each violation thereafter within a one-year period of the first violation.

(c) If water theft is committed via the unauthorized connection to a fire hydrant, the customer or perpetrator will be charged an administrative penalty of up to:

1. $2,500 for the first violation.
2. $5,000 for the second violation within a one-year period of the first violation.
3. $10,000 for each violation thereafter within a one-year period of the first violation.

(d) The above penalties are the maximum amounts allowed under Government Code Sections 53069.45 and 53069.46, as may be amended, and shall be revised to correspond the maximums allowed thereunder without further adoption by ordinance.

Section 7-2.103 Other Remedies

In addition to any other remedies provided in this Section or available under applicable law, the District may also seek injunctive relief in the Superior Court or take enforcement action. All remedies provided herein shall be cumulative and not exclusive.

Section 7-2.104 Enforcement Officer

The District's General Manager is hereby declared and appointed as the enforcement officer of this Section, and shall be empowered to take such other actions as authorized herein, or as may otherwise be authorized by the District's Board of Directors or be reasonably necessary for enforcement of the Section.

Section 7-2.105 Enforcement of Violations

(a) A "Notice of Violation" will be mailed and delivered when the violation of this article is discovered by the District. The notice shall include a warning that further violation could result in stricter penalties as set forth in Section 7-2.102 of this Code.

(b) Customers shall be encouraged to report violations of this Article to the District.

(c) Customers may appeal enforcement fines to the General Manager.

Section 7-2.106 Hardship Waiver

The District's General Manager may grant hardship waivers to reduce the amount of the fine imposed for water theft upon a showing by the responsible party the payment of the full amount of the fine would impose an undue financial burden on the responsible party. Requests for a hardship waiver must be submitted within ten 910) days of receiving the Notice of Violation. Such waivers may be granted only upon written application therefor. Upon granting such a waiver, the District's General Manager may impose any conditions he or she determines to be just and proper.

Section 7-2.107 Payment and Appeals Procedure

The District shall calculate the amount of any damages and penalty(ies) to be imposed, and shall send a bill to the customer, or if the offender is not a customer of record, an invoice for payment of damages or penalty(ies) may be sent to the offender, water user, or recipient.

(a) All costs relating to the District's processing and handling of the water theft, investigation and enforcement thereof, and potential charges for reestablishment of service, shall be borne by the party having responsibility for the water account at the time of the water theft, or if there is no customer of record, by the offender, water user or recipient. These charges include, but are not limited to, service call charges, water charges, turnoff of service, charges for damage to District facilities and equipment, and plug or termination fees. Before the meter will be replaced and service reestablished, the party requesting service, if in anyway involved in or related to, or associated with, parties involved in the water theft, shall deposit twice the average bi-monthly water bill, plus the standard meter reinstallation fee, in addition to all service call charges, and an amount representing any damage to District property.

(b) Any person (an "Appellant") who wishes to appeal the imposition of an administrative penalty imposed by the District pursuant to this article shall comply with the following procedures:

1. The Appellant shall submit an appeal request to the District General Manager no later than fifteen (15) calendar days from the date of the bill or invoice sent to the customer or offender.
2. A response to the appeal request shall be provided by the District within thirty (30) calendar days from receipt of the appeal request.

(c) The Appellant may request to provide evidence in writing or in person in support of his or her appeal.

(d) The decision by the District's General Manager shall be final.

(e) Within ten (10) days after any denial of an appeal, the Appellant shall pay any penalty(ies) imposed by the District.

(f) The provisions of Section 1094.6 of the California Code of Civil Procedure shall be applicable to judicial review of the decision."

Section 4. Removal of Illegal Water Consumption Fee Description

The Board of Directors hereby amends the Las Virgenes Municipal Water District Municipal Code ("Code") to remove "Illegal Water Consumption" in the Fee Description of Section 7.1.114 to Title 7 to read as set forth below.

The following penalties shall apply:

Fee Description	Fees
Broken Meter Seal or Lock	$200
Credit Card Chargeback Fee	$30-$40
DC Unauthorized Use	$2,500-$10,000
Disconnect Deposit Requirement	$100 Minimum
Disconnect Notice (door tag)	$100
Disconnect/Reconnect Water Service	$100/$150
Late Fees	5% of Bill Balance
Rejected ACH Transaction	$30-$40
Rejected CC Transaction	$30-$40
Returned Checks	$25-$35
Un-Notified Fire Service Testing	$75
Failure to Pay Door Tag	$100
Installation/Removal of Flow Restrictor	$100/$150

Section 5. Conflicting Provisions.

If provisions of this Ordinance are in conflict with each other, other provisions of the District's Code, regulations or policies, any other resolution or ordinance of the District, or any state law or regulation, the more restrictive provisions shall apply.

Section 6. Severability.

If any provision, section, subsection, sentence, clause or phrase or sections of this ordinance, or the application of same to any person or set of circumstances, is for any reason held to be unconstitutional, void or invalid, the invalidity of the remaining portions of this Ordinance shall not be affected, it being the intent of the Board of Directors in adopting this Ordinance that no portions, provisions or regulations contained herein shall become inoperative, or fail by reason of the unconstitutionality of any other provision hereof, and all provisions of this Ordinance are declared to be severable for that purpose.

Section 7. Publication and Posting.

The Secretary of the Board is hereby directed to cause a summary of this Ordinance to be published at least five (5) days prior to the date of adoption hereof in a newspaper of general circulation printed and a copy of the full text must be posted at the District office at least five (5) days prior to the meeting. The full text of this Ordinance must be published within ten (15) days after adoption with the names of the directors voting for and against the adoption and must likewise be posted at the District office.

Section 8. Effective Date.

Upon adoption, this Ordinance shall become effective and in full force at 12:01 a.m. on the thirty-first day after its passage.

PASSED, APPROVED, and **ADOPTED** on _____, **2026**

_____

President

_____

Secretary

APPROVED AS TO FORM:

_____
W. Keith Lemieux
District Counsel

(SEAL)

ORDINANCE NO. 290~~0~~1

AN ORDINANCE OF THE LAS VIRGENES MUNICIPAL WATER DISTRICT COUNTY OF LOS ANGELES, STATE OF CALIFORNIA PROHIBITING WATER THEFT, UNAUTHORIZED USE, AND TAMPERING

WHEREAS, Las Virgenes Municipal Water District ("District") is organized under the Municipal Water District Act of 1911 and is classified as a district;

WHEREAS, under California Water Code Section 71600-71601, a municipal water district is authorized to adopt and enforce ordinances establishing rules and regulations for the water it delivers;

WHEREAS, under, California Government Code Section 61060(b), the District is authorized to adopt and enforcement by ordinance rules and regulations related to its water service powers;

WHEREAS, the District is further authorized by California Government Code Section 61064(a) to declare violations of its ordinances to be misdemeanors pursuant to Section 19 of the California Penal Code;

WHEREAS, California Penal Code Section 498 prohibits the theft of utility services, including water;

WHEREAS, California Penal Code Section 624 prohibits every person from willfully damaging, tampering with, or digging up water pipes or waterworks;

WHEREAS, California Penal Code Section 625 prohibits every person who, with intent to defraud or injure, opens or causes to be opened, or draws water from any disconnected utility connection after having been notified that the same has been closed or shut for specific cause, by order of competent authority;

WHEREAS, any person who violates California Penal Code Sections 498, 624, or 625 is guilty of a misdemeanor;

WHEREAS, California Civil Code Section 1882 et seq. authorizes the Las Virgenes Municipal Water District ("District") to bring a civil action for damages against any person who commits, authorizes, solicits, aids, abets, or attempts any of the following acts:

(a) Diverts, or causes to be diverted, water services by any means whatsoever;
(b) Makes, or causes to be made, any connection or reconnection with property owned or used by the District to provide water service without the authorization or consent of the District;
(c) Prevents any District meter, or other device used in determining the charge for water services, from accurately performing its measuring function by tampering or by any other means;
(d) Tampers with any property owned or used by the District to provide water services; or
(e) Uses or receives the direct benefit of all, or a portion, of the water service with knowledge of, or reason to believe that the diversion, tampering, or unauthorized connection existed at the time of the use, or that the use or receipt, was without the authorization or consent of the District;

WHEREAS, pursuant to California Government Code Section 53069.4, the District may, by ordinance, make the violation of any ordinance enacted by its Board of Directors subject to a civil administrative fine or penalty;

WHEREAS, pursuant to California Government Code Section 53069.45, the District may, by ordinance, make the violation of any ordinance enacted by its Board of Directors subject to a civil administrative fine or penalty;

WHEREAS, Article X, Section 2, of the California Constitution declares that the general welfare requires that water resources be put to beneficial use; waste or unreasonable use, or unreasonable method of use, of water be prevented; and conservation of water be fully exercised with a view to the reasonable and beneficial use thereof;

WHEREAS, pursuant to AB 2505, which amended Section 53069.45 to the California Government Code, the District may adopt an ordinance that prohibits water theft, subject to an administrative fine or penalty for violation of that ordinance;

WHEREAS, because water is a vital resource, the District has determined that it is appropriate to impose civil administrative fines for the theft of water to protect this vital resource;

WHEREAS, the District's Board of Directors finds that this Ordinance is in the best interest of the District to protect the health, safety and welfare of the community; and

WHEREAS, the District's Board of Directors finds that this Ordinance is consistent with state law and the policies of the District.

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

Section 1. Recitals.

The District hereby finds and determines that the above recitals are true and correct and are incorporated herein.

Section 2. Amendment of Unauthorized Fire Hydrant Use Regulations

The Board of Directors hereby amends the Las Virgenes Municipal Water District Municipal Code ("Code") to repeal and replace Section 3.-4.203 of Title 3 to read as set forth below.

§ 3-4.203**Unauthorized Use of Fire Hydrants.**

~~[Amended by Res. 2610, 7-5-2022]~~

(a)

Except as provided herein, no person shall use water from a fire hydrant for any purpose other than fire suppression.

(b)

Temporary service may be provided through a fire hydrant under Section **3-2.210**. If a customer does not apply for and receive permission from the District to utilize a hydrant for any stated purpose prior to use of the hydrant, the use of water from the hydrant shall be subject to the penalties set forth in Section 7-2.102 of this code. ~~considered illegal water consumption and the customer shall be subject to the miscellaneous penalties set forth in Section **7-1.114** of this Code.~~

(c)

Water may be used to maintain or test a fire sprinkler system. Authorization to use water through a fire service connection for the purpose of maintaining or testing a fire sprinkler system will be granted up to four times per year with advance notification to the District. Exceptions may be made upon the estimated quantity of water to be used. The General Manager may restrict or prohibit such non-emergency flows as may be detrimental to the District's system.

(d)

When it is found that a fire service or a fire hydrant has been used for any purpose other than for suppression, or if there has been unauthorized use of a fire hydrant, fire hydrant meter, or fire detector check, or a single service has exceeded the allowable capacity of the by-pass meter, the District may charge an administrative penalty as set forth in Section 7-2.102 of this Code. ~~or a single service has exceeded the allowable capacity of the by-pass~~

~~meter, the District may charge the sum of $200.00 for the first offense, $300.00 for the second offense, and $500.00 for the third and subsequent offenses; if warranted by the estimate of water usage for each and every incident of authorized use. (Each day of use may be construed as a separate incident.)~~

If the General Manager determines that leakage has occurred, the General Manager shall notify the customer of the usage and encourage customer to fix the leak.
~~If the General Manager determines that leakage has occurred, totaling less than 0.03 units of water per period delivered during 3 consecutive billing periods to the customer's fire service or fire hydrants, the General Manager shall notify the customer of the usage and encourage customer to fix the leak~~.

If the General Manager determines that leakage has occurred, totaling more than 15 units of water per period during three consecutive billing periods to the customer's fire service or fire hydrant, the customer shall be required either to present satisfactory evidence that the leakage has been fixed, or he must remove the detector check valve and purchase a water meter of the appropriate size. If the customer chooses to purchase a water meter, the customer shall pay all fees and charges normally associated with the purchase of the meter.
~~If the General Manager determines that leakage has occurred, totaling less than 15 units but more than 0.03 units of water per period have been delivered to the customer's fire system or fire hydrant, the customer shall present satisfactory evidence that the leak has been repaired, or pay $75.00 per billing period in addition to the regular charge described herein.~~

~~If the General Manager determines that leakage has occurred, totaling more than 15 units of water per period during three consecutive billing periods to the customer's fire service or fire hydrant, the customer shall be required either to present satisfactory evidence that the leakage has been fixed, or he must remove the detector check valve and purchase a water meter of the appropriate size. If the customer chooses to purchase a water meter, the customer shall pay all fees and charges normally associated with the purchase of the meter.~~

(e)

If repeated unauthorized use of a fire service or hydrant occurs, the General Manager shall notify the fire department and the occupant of the properties served by the fire service or fire hydrant that within 10 days the fire service or fire hydrant shall be disconnected until all charges for each violation have been paid and until assurances, satisfactory to the General Manager, have been given that no further unauthorized use will occur.

Section 3. Adoption of Water Theft Regulations and Administrative Penalties.

The Board of Directors hereby amends the Las Virgenes Municipal Water District Municipal Code ("Code") to add Section 7-2 to Title 7 to read as set forth below.

"Chapter 7-2 Water Theft Penalties (§7-2.101 - §7-2.106)

Section 7-2.101 Definitions

The following definitions shall be used to interpret the provisions of this Chapter in addition to the definitions set forth elsewhere in this Code.

(a) "Water theft" means an action to divert, tamper, or reconnect water utility services, as defined in Section 498 of the Penal Code, and includes all of the following:

1. Diverting or causing to be diverted any District services, by any means.
2. Preventing any utility meter, or other device used in determining the charge for services, from accurately performing its measuring function by tampering or by any other means.
3. Tampering with any property owned by or used by the District to provide services.
4. Making or causing to be made any connection with or reconnection with property owned or used by the District to provide services without the authorization or consent of the District.
5. Using or receiving the direct benefit of all or a portion of water utility services with knowledge or reason to believe that the diversion, tampering, or unauthorized connection existed at the time of that use, or that the use or receipt was otherwise without the authorization or consent of the District; and,
6. Unauthorized use of a fire hydrant for any purpose other than active firefighting.

(b) "Divert" means to change the intended course or path of water or sewer without the authorization or consent of the District.

(c) "Tamper" means to rearrange, injure, alter, interfere with, or otherwise prevent from performing a normal or customary function.

(d) "Reconnection" means the reconnection of service by a customer or other person after service has been lawfully disconnected by the District.

Section 7-2.102 Administrative Penalties

Water theft is prohibited. Each act of water theft constitutes a misdemeanor. The District may report any water theft to the appropriate prosecuting agency and press for prosecution of said activity pursuant to the Penal Code. In addition to pursuing criminal penalties, the District may, upon discovering water theft, also pursue the following remedies or other remedies available at law or equity:

(a) If water theft is committed by meter tampering, the customer or perpetrator will be charged an administrative penalty of up to:

1. $130 for the first violation.
2. $700 for the second violation within a one-year period of the first violation.
3. $1,300 for each violation thereafter within a one-year period of the first violation.

(b) If water theft is committed by any means other than meter tampering, the customer or perpetrator will be charged an administrative penalty of up to:

1. $1,000 for the first violation.
2. $2,000 for the second violation within a one-year period of the first violation.
3. $3,000 for each violation thereafter within a one-year period of the first violation.

(c) If water theft is committed via the unauthorized connection to a fire hydrant, the customer or perpetrator will be charged an administrative penalty of up to:

1. $2,500 for the first violation.
2. $5,000 for the second violation within a one-year period of the first violation.
3. $10,000 for each violation thereafter within a one-year period of the first violation.

(d) The above penalties are the maximum amounts allowed under Government Code Sections 53069.45 and 53069.46, as may be amended, and shall be revised to correspond the maximums allowed thereunder without further adoption by ordinance.

Section 7-2.103 Other Remedies

In addition to any other remedies provided in this Section or available under applicable law, the District may also seek injunctive relief in the Superior Court or take enforcement action. All remedies provided herein shall be cumulative and not exclusive.

Section 7-2.104 Enforcement Officer

The District's General Manager is hereby declared and appointed as the enforcement officer of this Section, and shall be empowered to take such other actions as authorized herein, or as may otherwise be authorized by the District's Board of Directors or be reasonably necessary for enforcement of the Section.

Section 7-2.105 Enforcement of Violations

(a) A "Notice of Violation" will be mailed and delivered when the violation of this article is discovered by the District. The notice shall include a warning that further violation could result in stricter penalties as set forth in Section 7-2.102 of this Code.

(b) Customers shall be encouraged to report violations of this Article to the District.

(c) Customers may appeal enforcement fines to the General Manager.

Section 7-2.106 Hardship Waiver

The District's General Manager may grant hardship waivers to reduce the amount of the fine imposed for water theft upon a showing by the responsible party the payment of the full amount of the fine would impose an undue financial burden on the responsible party. Requests for a hardship waiver must be submitted within ten 910) days of receiving the Notice of Violation. Such waivers may be granted only upon written application therefor. Upon granting such a waiver, the District's General Manager may impose any conditions he or she determines to be just and proper.

Section 7-2.107 Payment and Appeals Procedure

The District shall calculate the amount of any damages and penalty(ies) to be imposed, and shall send a bill to the customer, or if the offender is not a customer of record, an invoice for payment of damages or penalty(ies) may be sent to the offender, water user, or recipient.

(a) All costs relating to the District's processing and handling of the water theft, investigation and enforcement thereof, and potential charges for reestablishment of service, shall be borne by the party having responsibility for the water account at the time of the water theft, or if there is no customer of record, by the offender, water user or recipient. These charges include, but are not limited to, service call charges, water charges, turnoff of service, charges for damage to District facilities and equipment, and plug or termination fees. Before the meter will be replaced and service reestablished, the party requesting service, if in anyway involved in or related to, or associated with, parties involved in the water theft, shall deposit twice the average bi-monthly water bill, plus the standard meter reinstallation fee, in addition to all service call charges, and an amount representing any damage to District property.

(b) Any person (an "Appellant") who wishes to appeal the imposition of an administrative penalty imposed by the District pursuant to this article shall comply with the following procedures:

1. The Appellant shall submit an appeal request to the District General Manager no later than fifteen (15) calendar days from the date of the bill or invoice sent to the customer or offender.

2. A response to the appeal request shall be provided by the District within thirty (30) calendar days from receipt of the appeal request.

(c) The Appellant may request to provide evidence in writing or in person in support of his or her appeal.

(d) The decision by the District's General Manager shall be final.

(e) Within ten (10) days after any denial of an appeal, the Appellant shall pay any penalty(ies) imposed by the District.

(f) The provisions of Section 1094.6 of the California Code of Civil Procedure shall be applicable to judicial review of the decision."

Section 4. Removal of Illegal Water Consumption Fee Description

The Board of Directors hereby amends the Las Virgenes Municipal Water District Municipal Code ("Code") to remove "Illegal Water Consumption" in the Fee Description of Section 7-1.114 to Title 7 to read as set forth below.

The following penalties shall apply:

Fee Description	Fees
Broken Meter Seal or Lock	$200
Credit Card Chargeback Fee	$30-$40
DC Unauthorized Use	$2,500-$10,000
Disconnect Deposit Requirement	$100 Minimum
Disconnect Notice (door tag)	$100
Disconnect/Reconnect Water Service	$100/$150
Late Fees	5% of Bill Balance
Rejected ACH Transaction	$30-$40
Rejected CC Transaction	$30-$40
Returned Checks	$25-$35
Un-Notified Fire Service Testing	$75
Failure to Pay Door Tag	$100
Installation/Removal of Flow Restrictor	$100/$150

Section 5. Conflicting Provisions.

If provisions of this Ordinance are in conflict with each other, other provisions of the District's Code, regulations or policies, any other resolution or ordinance of the District, or any state law or regulation, the more restrictive provisions shall apply.

Section 6. Severability.

If any provision, section, subsection, sentence, clause or phrase or sections of this ordinance, or the application of same to any person or set of circumstances, is for any reason held to be unconstitutional, void or invalid, the invalidity of the remaining portions of this Ordinance shall not be affected, it being the intent of the Board of Directors in adopting this Ordinance that no portions, provisions or regulations contained herein shall become inoperative, or fail by reason of the unconstitutionality of any other provision hereof, and all provisions of this Ordinance are declared to be severable for that purpose.

Section 7. Publication and Posting.

The Secretary of the Board is hereby directed to cause a summary of this Ordinance to be published at least five (5) days prior to the date of adoption hereof in a newspaper of general circulation printed and a copy of the full text must be posted at the District office at least five (5) days prior to the meeting. The full text of this Ordinance must be published within ten (15) days after adoption with the names of the directors voting for and against the adoption, and must likewise be posted at the District office.

Section 8. Effective Date.

Upon adoption, this Ordinance shall become effective and in full force at 12:01 a.m. on the thirty-first day after its passage.

~~66~~

PASSED, APPROVED, and **ADOPTED** on _____, **2026**

_____

_____

_____ President

_____

Secretary

APPROVED AS TO FORM:

_____

W. Keith Lemieux
District Counsel

(SEAL)

AGENDA ITEM NO. 10.A

DATE: April 7, 2026

TO: Board of Directors

FROM: Finance and Administration

SUBJECT: Pure Water Project Las Virgenes-Triunfo: Authorization of Payment Obligation for Construction Loan and Grant Agreement with State Water Resources Control Board

---

SUMMARY:

On April 6, 2026, the Las Virgenes-Triunfo Joint Powers Authority (Operating JPA) Board approved a Construction Loan and Grant Agreement with the State Water Resources Control Board (SWRCB) for up to $69,240,000 through the California Clean Water State Revolving Fund (SRF) Program and $15,000,000 in grant funding for the Pure Water Project Las Virgenes-Triunfo.

In conjunction with this approval, staff now recommends the Board pass, approve and adopt Resolution No. 2669 to authorize incurring a payment obligation under its Payment Agreement, in a principal amount up to $52,950,000, representing LVMWD's 70.60% allocable share of debt service under the Loan and Grant Agreement.

RECOMMENDATION(S):

Pass, approve and adopt proposed Resolution No. 2669, authorizing the incurrence of a payment obligation under LVMWD’s Payment Agreement, in an initial principal amount up to $52,950,000, ratifying the prior approval of the Payment Agreement and authorizing its execution.

RESOLUTION NO. 2669

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT APPROVING A PAYMENT OBLIGATION UNDER THE PAYMENT AGREEMENT IN A PRINCIPAL AMOUNT UP TO $52,950,000 WITH RESPECT TO A CONSTRUCTION LOAN AND GRANT AGREEMENT AMONG LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY, LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY AND CALIFORNIA STATE WATER RESOURCES CONTROL BOARD AND RELATED DOCUMENTATION RELATING TO THE PURE WATER PROJECT AND AUTHORIZING CERTAIN ACTIONS IN CONNECTION THEREWITH

(Reference is hereby made to Resolution No. 2669 on file in the District's Resolution Book and by this reference the same is incorporated herein.)

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

By approving the resolution, the District will be authorized to incur a payment obligation under the Payment Agreement in a principal amount up to $52,950,000. The District will be obligated to pay its allocated share of the payments due under the Loan and Grant Agreement. TWSD will be responsible for paying its allocable share of the payments due under the Loan and Grant Agreement.

Amounts drawn under the loan portion of the Loan and Grant Agreement will bear interest at a fixed rate determined on the date of closing of the Loan and Grant Agreement. Generally, the interest rate for SRF financing agreements is fifty percent (50%) of the most recent interest rate paid by the State on general obligation bonds issued by the State Treasurer's Office. The rate is expected to be approximately 2.2% and the term of the SRF Loan is expected to be approximately 30 years.

DISCUSSION:

The Project financing team, consisting of the District, TWSD, PFM Financial Advisors LLC (PFM) and Stradling Yocca Carlson & Rauth LLP, has been in negotiations with the SWRCB for several months to finalize the terms of a Construction Loan and Grant Agreement by and among the Las Virgenes-Triunfo Public Financing Authority (Financing JPA), the Operating JPA and the SWRCB.

In connection with the SRF financing, the Financing JPA, Operating JPA and SWRCB will enter into the Loan and Grant Agreement. LVMWD will incur a payment obligation under the Payment Agreement in an amount equal to its allocable share of the payments due under the Loan and Grant Agreement. The Payment Agreement is an agreement among the Financing JPA, Operating JPA and LVMWD providing for the direct payment by LVMWD to the Financing JPA of its share of allocable debt service relating to the Project. LVMWD’s allocable share of debt service is 70.60%. The Payment Agreement will be required to be supplemented to accommodate certain provisions of the Loan and Grant Agreement.

For reference, the Loan and Grant Agreement has been attached.

Loan and Grant Agreement:

The Loan and Grant Agreement among the JPA, Operating JPA and SWRCB sets forth the terms of the SRF financing and certain covenants and obligations of the parties. The Loan and Grant Agreement includes certain ongoing reporting obligations relating to the Project, as well as financial covenants, including an additional debt test and rate covenants for the

Districts and the Operating JPA.

GOALS:

Ensure Effective Utilization of the Public's Assets and Money

Prepared by: Brian Richie, Director of Finance and Technology

ATTACHMENTS:
Proposed Resolution No. 2669
Form of SRF Construction Loan and Grant Agreement

RESOLUTION NO. 2669

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT APPROVING A PAYMENT OBLIGATION UNDER THE PAYMENT AGREEMENT IN A PRINCIPAL AMOUNT UP TO $52,950,000 WITH RESPECT TO A CONSTRUCTION LOAN AND GRANT AGREEMENT AMONG LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY, LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY AND CALIFORNIA STATE WATER RESOURCES CONTROL BOARD AND RELATED DOCUMENTATION RELATING TO THE PURE WATER PROJECT AND AUTHORIZING CERTAIN ACTIONS IN CONNECTION THEREWITH

WHEREAS, the Las Virgenes Municipal Water District, a municipal water district that is duly organized and existing under the Municipal Water District Act (Water Code Section 71000 et seq. of the State of California) (the "District"), and Triunfo Water & Sanitation District, a county sanitation district that is duly organized and existing under the County Sanitation District Act (Health & Safety Code Section 4700 et seq. of the State of California) ("TWSD" and, together with the District, the "Project Participants"), are members of the Las Virgenes-Triunfo Joint Powers Authority, a joint exercise of powers agency relating to joint facilities of Las Virgenes Municipal Water District and Triunfo Water & Sanitation District (the "Operating JPA"), and jointly operate certain facilities through the Operating JPA; and

WHEREAS, the Project Participants and the Operating JPA desire to finance the design and construction of the Pure Water Project, which will be owned and operated by the Operating JPA and will consist of an advanced water purification facility to treat effluent from the Operating JPA's Tapia Water Reclamation Facility for potable use (the "Project"); and

WHEREAS, the Project Participants are members of the Las Virgenes-Triunfo Public Financing Authority, a joint exercise of powers agency that is duly organized and existing under and by virtue of the laws of the State of California (the "Financing JPA"), and the Project Participants and the Operating JPA have requested the assistance of the Financing JPA in connection with the financing of the Project; and

WHEREAS, the Financing JPA and the Operating JPA have determined that it is in the best interest of the Financing JPA, the Operating JPA and the Project Participants to enter into a Construction Loan and Grant Agreement (the "Construction Loan and Grant Agreement") with the California State Water Resources Control Board for the purpose of funding a portion of the Project; and

WHEREAS, the Board of Directors the District has previously authorized the execution and delivery by the District of a payment agreement (the "LVMWD Payment Agreement") by and among the Operating JPA, Financing JPA and the District, pursuant to which the District has agreed to pay its allocated share of debt service relating to the financing of the Project, which would include the Project Participant's allocated share of the Obligations (as such term is defined in the Construction Loan and Grant Agreement); and

WHEREAS, the form of the Construction Loan and Grant Agreement has been submitted to this meeting and is on file with the Secretary of the Board of Directors of the District; and

WHEREAS, in accordance with California Government Code Section 5852.1, the District has obtained and wishes to disclose the information set forth in Exhibit A;

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE LAS VIRGENES MUNICIPAL WATER DISTRICT AS FOLLOWS:

SECTION 1. Approval of Recitals. The District hereby finds and determines that the foregoing recitals are true and correct.

SECTION 2. Approval of the Construction Loan and Grant Agreement. The Construction Loan and Grant Agreement is hereby approved substantially in the form on file with the Secretary.

SECTION 3. Ratification of the LVMWD Payment Agreement and the Approval of the LVWMD Payment Obligation Relating to the Construction Loan and Grant Agreement. The Board of Directors of the District (the "Board") hereby ratifies the prior approval of the LVMWD Payment Agreement, and approves an additional payment obligation of the District under the LVMWD Payment Agreement in a principal amount up to $52,950,000, reflecting the District's allocated share of debt service relating to the Construction Loan and Grant Agreement. Each of the President or Vice President of the Board, the General Manager or the Assistant General Manager of the District (each, an "Authorized Officer") is hereby singly authorized to execute and deliver the LVMWD Payment Agreement, including any supplements thereto, and are further hereby authorized to approve changes to the LVMWD Payment Agreement, including any supplements thereto, as may be necessary or appropriate to allow for the execution and delivery of the Construction Loan and Grant Agreement by the Financing JPA and the Operating JPA, after consultation with the District's General Counsel or Stradling Yocca Carlson & Rauth LLP, as bond counsel, as bond counsel, said execution by an Authorized Officer being conclusive evidence of such approval.

SECTION 4. Other Actions. The Authorized Officers, the Secretary, or any other proper officer of the District, acting singly, be and each of them hereby is authorized and directed to execute and deliver any and all documents, agreements, certificates and instruments or any amendments related to the foregoing and to do and cause to be done any and all acts and things necessary or proper for carrying out the transactions contemplated by the LVWMD Payment Agreement and this Resolution, and any actions previously taken in connection with such matters is hereby ratified. In the event that the President and Vice President of the Board are unavailable to sign any of the agreements described herein, any other member of the Board or Authorized Officer may sign such agreement.

SECTION 5. Definitions. Unless otherwise defined herein, all terms used herein and not otherwise defined shall have the meanings given to such terms in the LVWMD Payment Agreement, unless the context otherwise clearly requires.

SECTION 6. Effective Date of Resolution. This Resolution shall take effect immediately.

SECTION 7. Certification. The Secretary shall certify to the adoption of this Resolution.

PASSED, APPROVED, AND ADOPTED this 7th day of April, 2026.

President

Secretary

(Seal)

APPROVED AS TO FORM:

District Counsel

EXHIBIT A

GOVERNMENT CODE SECTION 5852.1 DISCLOSURE

The following information consists of estimates that have been provided by PFM Financial Advisors LLC, the District's municipal advisor, and has been represented by such party to have been provided in good faith:

(A) True Interest Cost of the allocable share of Obligations: 2.200%

(B) Finance Charge of the allocable share of Obligations (Sum of all fees/charges paid to third parties): $74,130

(C) Net Proceeds of Obligations allocable to the District to be received (net of finance charges, reserves and capitalized interest, if any): $48,883,440

(D) Total Payment Amount through maturity of the allocable share of Obligations: $67,293,631

The foregoing constitute good faith estimates only. The principal amount of the allocable share of Obligations, the true interest cost of the allocable share of Obligations, the finance charges thereof, the amount of proceeds received therefrom and total payment amount with respect thereto may differ from such good faith estimates due to: (a) the actual date of the execution of the Obligations being different than the date assumed for purposes of such estimates; (b) the actual of principal amount of the allocable share of Obligations being different from the estimated amount used for purposes of such estimates; (c) the actual amortization of the allocable share of Obligations being different than the amortization assumed for purposes of such estimates; (d) the actual market interest rates at the time of execution of the Construction Loan and Grant Agreement being different than those estimated for purposes of such estimates; (e) other market conditions; or (f) alterations in the District's financing plan, or a combination of such factors.

The actual date of execution of the Construction Loan and Grant Agreement and the allocable share of Obligations will be determined by the District based on a variety of factors. The actual interest rate borne by Construction Loan and Grant Agreement will depend on market interest rates at the time of sale thereof. The actual amortization of the allocable share of Obligations will also depend, in part, on market interest rates at the time of sale thereof. Market interest rates are affected by economic and other factors beyond the control of the District.

DRAFT DATED: 3/6/2026

CLEAN WATER
WATER RECYCLING FUNDING PROGRAM

LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY

LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY

AND

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

CONSTRUCTION
LOAN AND GRANT

[PROJECT NO. and NAME]

AGREEMENT NO. [ ]

PROJECT FUNDING AMOUNT: $
TOTAL GRANT COMPONENT: $15,000,000.00
PROPOSITION 4 GRANT COMPONENT: $13,619,226.00
GENERAL FUND GRANT COMPONENT: $1,380,774.00
ESTIMATED REASONABLE PROJECT COST: $

ELIGIBLE WORK START DATE: _____
ELIGIBLE CONSTRUCTION START DATE: _____

COMPLETION OF CONSTRUCTION DATE: _____
PAYMENT START DATE : [one year from CC]
FINAL REIMBURSEMENT REQUEST DATE: _____
FINAL PAYMENT DATE: _____
RECORDS RETENTION END DATE: _____

TABLE OF CONTENTS

AGREEMENT 1

1. AUTHORITY 1

2. INTENTION 1

3. AGREEMENT, TERM, DOCUMENTS INCORPORATED BY REFERENCE 1

4. PARTY CONTACTS 3

5. DEFINITIONS 3

EXHIBIT A – SCOPE OF WORK 15

A.1. PROJECT DESCRIPTION, USEFUL LIFE, AND SCOPE OF WORK 15

A.2. STANDARD PROJECT REQUIREMENTS 15
A.2.1 Acknowledgements 15
A.2.2 Reports 15
A.2.2.1 Progress Reports 15
A.2.2.2 Project Completion Report. 16
A.2.2.3 As Needed Reports 16
A.2.2.4 Recycled water reports 16
A.2.2.5 Disadvantaged Business Enterprise Good Faith Efforts. 17
A.2.3 Signage 17
A.2.4 Commencement of Operations 17

A.3 DATES & DELIVERABLES 18

A.4 SCHEDULE 18

EXHIBIT B – FUNDING TERMS 19

B.1. FUNDING AMOUNTS AND REIMBURSEMENTS 19
B.1.1 Funding Contingency and Other Sources 19
B.1.2 Estimated Reasonable Cost. 19
B.1.3 Project Funding Amount 19
B.1.4 Grant Component 19
B.1.5 Budget Costs 19
B.1.6 Contingent Disbursement 20
B.1.7 Reimbursement Procedure 21
B.1.8 Withholding of Disbursements 22
B.1.9 Fraud and Misuse of Public Funds; Enforcement 22

B.2 RECIPIENT'S PAYMENT OBLIGATION, PLEDGE, AND RESERVE 23
B.2.1 Project Costs 23
B.2.2 Estimated Principal Payment Due 23
B.2.3 Interest Rate and In-Lieu of Interest Charges 23
B.2.5 Obligation Absolute 23
B.2.6 Payment Timing. 24

DRAFT

B.2.7 Pledged Revenues 25
B.2.7.1 Establishment of Revenue Fund and Reserve Fund. 25
B.2.7.2 Pledge of Revenues, Revenue Fund, and Reserve Fund. 25
B.2.7.3 Application and Purpose of the Revenue Fund. 25
B.2.8 No Prepayment 25
B.2.9 Reserve Fund. 25

B.3 COLLECTION OF MEMBER CONTRIBUTIONS AND MEMBER PAYMENTS 25

B.4 ADDITIONAL PROJECT BONDS 26

B.5 NO LIENS 26

EXHIBIT C – GENERAL & PROGRAMMATIC TERMS & CONDITIONS 27

C.1 REPRESENTATIONS & WARRANTIES 27
C.1.1 Application and General Recipient Commitments 27
C.1.2 Authorization and Validity 27
C.1.3 No Violations 27
C.1.4 No Litigation. 27
C.1.5 Property Rights 27
C.1.6 Solvency and Insurance 28
C.1.7 Legal Status and Eligibility 28
C.1.8 Financial Statements and Continuing Disclosure 28
C.1.9 Project Bonds and Member Obligations 28
C.1.10 No Other Material Obligations 28
C.1.11 Compliance with State Water Board Funding Agreements 28

C.2 DEFAULTS AND REMEDIES 29
C.2.1 Return of Funds; Acceleration; and Additional Payments 29
C.2.3 Administrative remedies 29
C.2.4 Judicial remedies 29
C.2.5 Termination. 30
C.2.6 Damages for Breach of Tax-Exempt Status 30
C.2.7 Damages for Breach of Federal Conditions 30
C.2.8 Remedies and Limitations 30
C.2.9 Non-Waiver 30
C.2.10 Status Quo. 30

C.3 STANDARD CONDITIONS 30
C.3.1 Access, Inspection, and Public Records 30
C.3.2 Accounting and Auditing Standards; Financial Management Systems 31
C.3.3 Amendment 32
C.3.4 Assignability 32
C.3.5 Audit. 32
C.3.6 Bonding. 32
C.3.7 Competitive Bidding 32
C.3.8 Compliance with Applicable Laws, Rules, and Requirements 32
C.3.9 Computer Software 33
C.3.10 Conflict of Interest. 33
C.3.11 Continuous Use of Project; No Lease, Sale, Transfer of Ownership, or Disposal of Project. 33
C.3.12 Data Management 33
C.3.13 Disputes 33
C.3.14 Drug-Free Workplace. [if any grant component] 34
C.3.15 Environmental Clearance 34

DRAFT

C.3.16 Governing Law 34
C.3.17 Income Restrictions 34
C.3.18 Indemnification and State Reviews 35
C.3.19 Independent Actor 35
C.3.20 Integration. 35
C.3.21 Leveraging Covenants 35
C.3.22 No Discrimination. 36
C.3.23 No Third Party Rights 37
C.3.24 No Obligation of the State 37
C.3.25 Notice 37
C.3.26 Operation and Maintenance; Insurance 40
C.3.27 Permits, Subcontracting, and Remedies 40
C.3.28 Professionals 41
C.3.29 Prevailing Wages 41
C.3.30 Public Funding. 41
C.3.31 Recipient and Operating JPA's Responsibility for Work. 41
C.3.32 Records Retention. 41
C.3.33 Related Litigation. 42
C.3.34 Rights in Data 42
C.3.35 State Water Board Action; Costs and Attorney Fees 42
C.3.36 Timeliness 42
C.3.37 Unenforceable Provision. 42
C.3.38 Venue 42
C.3.39 Waiver and Rights of the State Water Board. 42

C.4 MISCELLANEOUS STATE AND FEDERAL REQUIREMENTS 43
C.4.2 State Cross-Cutters 43
C.4.3 Federal Requirements and Cross-Cutters for SRF Funding. 43

EXHIBIT D – SPECIAL CONDITIONS 50

EXHIBIT E – PAYMENT SCHEDULE 61

EXHIBIT F – TAX CERTIFICATE 62

F.1 Purpose 62

F.2 Tax Covenant. 62

F.3 Governmental Unit 62

F.4 Financing of a Capital Project. 62

F.5 Ownership and Operation of Project 62

F.6 Temporary Period 62

F.7 Working Capital. 63

F.8 Expenditure of Proceeds. 63

F.9 Private Use and Private Payments 63

F.10 No Sale, Lease or Private Operation of the Project 63

DRAFT

F.11 No Disproportionate or Unrelated Use 64
F.12 Management and Service Contracts. 64
F.13 No Disposition of Financed Property 64
F.14 Useful Life of Project 64
F.15 Payments 64
F.16 No Other Replacement Proceeds. 65
F.17 No Sinking or Pledged Fund 65
F.18 Reserve Amount. 65
F.19 Reimbursement Resolution 65
F.20 Reimbursement Expenditures. 65
F.21 Change in Use of the Project 66
F.22 Rebate Obligations. 66
F.23 No Federal Guarantee 66
F.24 Amendments 66
F.25 Reasonable Expectations 66
F.26 Assignment. 66

DRAFT

AGREEMENT

1. AUTHORITY.

(a) The State Water Resources Control Board (State Water Board) is authorized, and implements its authority, to provide financial assistance under this Agreement pursuant to Senate Bill 108 (Stats. 2024, Ch. 35), Item 3940-106-0001, Sections 13475 et seq. and 79765 et seq. of the Water Code, Sections 91000, 91010, and 91014 of the Public Resources Code, and Resolution Nos. 2019-0058, 2025-0013, 2025-0022, 2025-0024, and 2026-0002.

(b) The Recipient is authorized to enter into this Loan Agreement (Agreement) pursuant to [Authorized Rep] Resolution No. _____.

(c) The Operating JPA is authorized to enter into this Agreement pursuant to Resolution No. _____

2. INTENTION.

(a) The Operating JPA is a joint powers authority created by its Members, Las Virgenes Municipal Water District and Triunfo Water and Sanitation District, for the purpose of jointly operating certain facilities. The Operating JPA proposes to acquire, construct and operate the Project, which will include the Advanced Water Purification Facility. The Members and the Operating JPA intend to finance the acquisition and construction of the Project through the Recipient, a joint powers authority of which the Members are members, and with the proceeds of Project Bonds. It is the intention of the parties that the Operating JPA will construct, maintain, operate, and own the Project and cause the Members to pay their Member Payment Obligations and Project Bonds Payments to the Recipient pursuant to the Payment Agreements and to the Operating JPA pursuant to the Operating JPA Agreement.

(b) The Recipient and Operating JPA desire to receive financial assistance for and undertake work required for the recycled water construction Project according to the terms and conditions set forth in this Agreement.

(c) The State Water Board proposes to assist in providing financial assistance for eligible costs of the Project in the amount set forth in Exhibit B, according to the terms and conditions set forth in this Agreement, with the expectation that the Recipient shall repay a portion of the financial assistance to the State Water Board.

(d) The Recipient intends to evidence its obligation to submit Payments to the State Water Board and secure its obligation with its Revenues, as set forth in Exhibit B, according to the terms and conditions set forth in this Agreement.

(e) The Recipient intends to certify and evidence its compliance with the Tax Covenants set forth in Exhibit F.

3. AGREEMENT, TERM, DOCUMENTS INCORPORATED BY REFERENCE.

In consideration of the mutual representations, covenants and agreements herein set forth, the State Water Board, the Recipient, and the Operating JPA each binding itself, its successors and assigns, do mutually promise, covenant, and agree to the terms, provisions, and conditions of this Agreement.

(a) The State Water Board hereby makes a loan to the Recipient in accordance with the provisions of this Agreement, which constitutes a secured promissory note for repayment of the loan.

DRAFT

(b) Subject to the satisfaction of all conditions precedent to this Agreement, this Agreement shall become effective upon signature by all of: the Recipient, the Operating JPA and the State Water Board. Conditions precedent are not limited to the following:

i. The Recipient and the Operating JPA must each deliver to the Division a resolution authorizing this Agreement, and must deliver resolutions of each of the Members authorizing the Payment Agreements.
ii. The Recipient must deliver executed Payment Agreements with each of the Members in accordance with the requirements for the Payment Agreements detailed herein and satisfactory to the State Water Board's counsel, providing for the pledge of the Member Net Revenues of each Operating JPA Member to the payment of the Recipient's Obligation.
iii. The Recipient must deliver an opinion of bond counsel and general counsel satisfactory to the State Water Board's counsel dated on or after the date that the Recipient signs this Agreement.
iv. The Recipient must deliver opinions of general counsel and bond counsel to the Members satisfactory to the State Water Board's counsel dated on or after the execution date of the Payment Agreements.

(c) Upon execution, the term of the Agreement shall begin on the Eligible Work Start Date and extend through the Final Payment Date.

(d) This Agreement includes the following exhibits and attachments thereto:

i. EXHIBIT A – SCOPE OF WORK
ii. EXHIBIT B – FUNDING TERMS
iii. EXHIBIT C – GENERAL & PROGRAMMATIC TERMS & CONDITIONS
iv. EXHIBIT D – SPECIAL CONDITIONS
v. EXHIBIT E – PAYMENT SCHEDULE
vi. EXHIBIT F – TAX CERTIFICATE
vii. EXHIBIT G—LAS VIRGENES PAYMENT AGREEMENT
viii. EXHIBIT H—TRIUNFO PAYMENT AGREEMENT

(e) This Agreement includes the following documents incorporated by reference, as well as any documents incorporated by reference in Exhibit D:

i. [if DFA has it] the Final Plans & Specifications, dated _____, which are the basis for the construction contract to be awarded by the Recipient, including any changes approved by the Division;
ii. [if DFA doesn't have the final plans and specs] the Final Plans & Specifications, which are the basis for the construction contract to be awarded by the Recipient, including any changes approved by the Division;
iii. the Waste Discharge Requirement Order No. _____(and/or National Pollutant Discharge Elimination System Permit No. _____), and any amendments thereto;
iv. the Water Recycling Requirement Order No. _____, and any amendments thereto;
v. the Recipient's Reimbursement Resolution No. _____dated _____;
vi. the Recipient's Tax Questionnaire dated _____.
the federal Davis-Bacon requirements. By accepting this Agreement, the Recipient acknowledges and agrees to the terms and conditions provided in the DBRA Requirements for EPA Subrecipients | US EPA (https://www.epa.gov/grants/dbra-requirements-epa-subrecipients). The Recipient shall ensure that the following language is included in all contracts and subcontracts funded under this Agreement:

DRAFT

By accepting this contract, the contractor acknowledges and agrees to the terms and conditions provided in the Contract Provisions for Davis-Bacon and Related Acts | US EPA (https://www.epa.gov/grants/contract-provisions-davis-bacon-and-related-acts).

(For reference, see also https://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/davisbacon.html.)

vii. [other incorporated documents, if any]

(f) This Agreement, and any amendments hereto, may be executed and delivered in any number of counterparts, each of which when delivered shall be deemed to be an original, but such counterparts shall together constitute one document. The parties may sign this Agreement, and any amendments hereto, either by an electronic signature using a method approved by the State Water Board or by a physical, handwritten signature. The parties mutually agree that an electronic signature using a method approved by the State Water Board is the same as a physical, handwritten signature for the purposes of validity, enforceability, and admissibility.

4. PARTY CONTACTS

State Water Board		[Recipient]	
Section:	Division of Financial Assistance		
Name:	xxxx, Project Manager	Name:	Title
Address:	1001 I Street, Floor	Address:	
City, State, Zip:	Sacramento, CA 95814	City, State, Zip:	
Phone:	(916)	Phone:	
Email:	[PMemail]@waterboards.ca.gov [programemail@waterboards.ca.gov]	Email:	

The Recipient may change its contact upon written notice to the Division, which notice shall be accompanied by authorization from the Recipient's Authorized Representative. The State Water Board will notify the Recipient of any changes to its contact.

While the foregoing are contacts for day-to-day communications regarding Project work, the Recipient and Operating JPA shall provide official communications and events of Notice as set forth in Exhibit C to the Division's Deputy Director.

5. DEFINITIONS.

Unless otherwise specified, each capitalized term used in this Agreement has the following meaning:

"Additional Payments" means the reasonable extraordinary fees and expenses of the State Water Board, and of any assignee of the State Water Board's right, title, and interest in and to this Agreement, in connection with this Agreement, including all expenses and fees of accountants, trustees, staff, contractors, consultants, costs, insurance premiums and all other extraordinary costs reasonably incurred by the State Water Board or assignee of the State Water Board.

"Advanced Water Purification Facility" means the advanced water purification facility to treat effluent from the Operating JPA's Tapia Water Reclamation Facility for potable reuse, which is to be constructed as

DRAFT

part of the Project as described in Exhibit A, Exhibit B, and documents incorporated by reference herein. The Advanced Water Purification Facility is deemed to be part of the Joint System.

“Allocated Share” means, with respect to each Member, the share of Payments, Additional Payments, Reserve Fund Contributions, Member Contributions, Project Bond Payments, and all other amounts required to be paid under this Agreement for which the Member is responsible for payment under its respective Payment Agreement and the Operating JPA Agreement. The Allocated Share of Las Virgenes Municipal Water District is 70.60% and the Allocated Share of Triunfo Water and Sanitation District is 29.40%.

"Allowance" means an amount based on a percentage of the accepted bid for an eligible project to help defray the planning, design, and construction engineering and administration costs of the Project.

“Agreement” means this agreement, including all exhibits and attachments hereto.

"Authorized Representative" means the duly appointed representative of the Recipient or of the Operating JPA as set forth in the certified originals of the authorizing resolutions of the Recipient and of the Operating JPA that designate the authorized representative by title.

"Bank" means the California Infrastructure and Economic Development Bank.

“Bond Funded Portion of the Project Funds” means any portion of the Project Funds which was or will be funded with Bond Proceeds.

“Bond Proceeds” means original proceeds, investment proceeds, and replacement proceeds of Bonds.

"Bonds" means any series of bonds issued by the Bank, the interest on which is excluded from gross income for federal tax purposes, all or a portion of the proceeds of which have been, are, or will be applied by the State Water Board to fund all or any portion of the Project Costs or that are secured in whole or in part by Payments paid hereunder.

“Charge In Lieu of Interest” means any fee or charge in lieu of some or all of, but not to exceed, the interest that would otherwise be owed under this Agreement, as set forth in Exhibit E.

"Code" as used in Exhibit F of this Agreement means the Internal Revenue Code of 1986, as amended, and any successor provisions and the regulations of the U.S. Department of the Treasury promulgated thereunder.

"Completion of Construction" means the date, as determined by the Division after consultation with the Recipient and Operating JPA, that the work of building and erection of the Project is substantially complete, and is identified in Exhibit A of this Agreement.

“Construction Period Interest” (CPI) means interest that accrues on disbursed Project Funds prior to Completion of Construction. Construction Period Interest is capitalized at Completion of Construction.

“Cover Page” means the front page of this Agreement.

“Days” means calendar days unless otherwise expressly indicated.

“Debt Service” means, as of any date, with respect to outstanding Project Bonds and Member Obligations and, in the case of the additional debt tests in Exhibit B of this Agreement, any Project Bonds or Member Obligations that are proposed to be outstanding, the aggregate amount of principal (excluding Excluded Principal) and interest scheduled to become due (either at maturity or by mandatory redemption),

DRAFT

together with any Charge In Lieu of Interest on this Obligation or other Project Bonds or Member Obligations owed to the State Water Board, calculated with the following assumptions:

a. Principal payments (unless a different subdivision of this definition applies for purposes of determining principal maturities or amortization) are made in accordance with any amortization schedule published for such principal, including any minimum sinking fund payments;

b. Interest on a variable rate Project Bond or Member Obligation that is not subject to a swap agreement and that is issued or will be issued as a tax-exempt obligation under federal law, is assumed to be (i) a fixed rate equal to the average variable rate borne over the preceding twelve (12) months by outstanding variable rate debt issued or executed by the Recipient, or (ii) if no such variable rate debt is outstanding at the time of the calculation, the average of the SIFMA Municipal Swap Index, or its successor index, during the 24 months preceding the date of such calculation;

c. Interest on a variable rate Project Bond or Member Obligation that is not subject to a swap agreement and that is issued or will be issued as a taxable obligation under federal law, is assumed to be (i) a fixed rate equal to the average variable rate borne over the preceding twelve (12) months by outstanding variable rate debt issued or executed by the Recipient, or (ii) if no such variable rate debt is outstanding at the time of the calculation, the average of SOFR, or its successor index, during the 24 months preceding the date of such calculation;

d. Interest on a variable rate Project Bond or Member Obligation that is subject to a swap agreement is the fixed swap rate or cap strike rate, as appropriate, if the variable rate has been swapped to a fixed rate or capped pursuant to an interest rate cap agreement or similar agreement;

e. Interest on a fixed rate Project Bond or Member Obligation that is subject to a swap agreement such that all or a portion of the interest has been swapped to a variable rate shall be treated as variable rate debt under subdivisions (b) or (c) of this definition of Debt Service;

f. As to any Project Bond or Member Obligation or portion thereof which bear no interest but which are sold at a discount and which discount accretes with respect to such Project Bond or Member Obligation or portions thereof, such accreted discount shall be treated as interest in the calculation of Debt Service;

g. Payments of principal and interest on a Project Bond or Member Obligation are excluded from the calculation of Debt Service to the extent such payments are to be paid from amounts then currently on deposit with a trustee or other fiduciary and restricted for the defeasance of such Project Bond or Member Obligation;

h. If 25% or more of the principal of a Project Bond or Member Obligation is not due until its final stated maturity (and such principal is not Excluded Principal), then principal and interest on that Project Bond or Member Obligation may be projected to amortize over the lesser of 30 years or the Useful Life of the financed asset, and interest may be calculated according to subdivisions (b)-(f) of this definition of Debt Service, as appropriate.

i. Interest shall not include any interest capitalized from proceeds of a Project Bond or Member Obligation.

“Deputy Director” means the Deputy Director of the Division.

"Division" means the Division of Financial Assistance of the State Water Board or any other segment of the State Water Board authorized to administer this Agreement.

DRAFT

"Eligible Construction Start Date" means the date set forth on the Cover Page of this Agreement, establishing the date on or after which construction costs may be incurred and eligible for reimbursement hereunder.

"Eligible Work Start Date" means the date set forth on the Cover Page of this Agreement, establishing the date on or after which any non-construction costs may be incurred and eligible for reimbursement hereunder.

"Event of Default" means the occurrence of any of the following events:

a) Failure by the Recipient to make any payment required to be paid pursuant to this Agreement, including Payments;
b) A representation or warranty made by or on behalf of the Recipient or the Operating JPA in this Agreement or in any document furnished by or on behalf of the Recipient or the Operating JPA to the State Water Board pursuant to this Agreement shall prove to have been inaccurate, misleading or incomplete in any material respect;
c) A material adverse change in the condition of the Recipient, the Operating JPA, the Revenues, the Member Revenues, the Joint System, or any Member System which the Division reasonably determines would materially impair the Recipient's ability to satisfy its obligations under this Agreement.
d) Failure by the Recipient to comply with the additional debt test or reserve fund requirement, if any, in Exhibit B or Exhibit D of this Agreement;
e) Failure to operate the Joint System or the Project without the Division's approval;
f) Failure by the Recipient or the Operating JPA to observe and perform any covenant, condition, or provision in this Agreement, which failure shall continue for a period of time, to be determined by the Division;
g) The occurrence of a material breach or event of default under any System Obligation, Material Obligation, or Member Obligation that results in the acceleration of principal or interest or otherwise requires immediate prepayment, repurchase or redemption;
h) Initiation of proceedings seeking arrangement, reorganization, or any other relief under any applicable bankruptcy, insolvency, or other similar law; the appointment of or taking possession of the property of any Project Party by a receiver, liquidator, assignee, trustee, custodian, conservator, or similar official; any Project Party entering into a general assignment for the benefit of creditors; the initiation of resolutions or proceedings to terminate the existence of any Project Party, or any action in furtherance of any of the foregoing;
i) A determination pursuant to Gov. Code section 11137 that any Project Party has violated any provision in Article 9.5 of Chapter 1 of Part 1 of Division 3 of Title 2 of the Government Code;
j) The occurrence of a material breach or event of default under, or termination of, any agreement providing for payments to the Recipient for the payment of Debt Service, payment of Member Contributions, payment of Reserve Fund Contributions, and/or the continued existence, operation, and maintenance of the Operating JPA, the Recipient, the Joint System, the Advanced Water Purification Facility, or the Project, including but not limited to:

- Either Payment Agreement
- The Joint Exercise of Powers Agreement by and between Las Virgenes Municipal Water District and Triunfo Water & Sanitation District, dated as of January 26, 2009 and as amended from time to time (the "Operating JPA Agreement")
- The Joint Exercise of Powers Agreement, dated as of September 1, 2023, by and between Las Virgenes Municipal Water District and Triunfo Water & Sanitation District, pursuant to which the Recipient was established ("The PFA Agreement")

DRAFT

k) Loss of the rights, licenses, permits, or privileges necessary for the operation of the Joint System, the Project, or any Member System or the occurrence of any material restraint on the Recipient's enterprise by a government agency or court order.

"Excluded Principal" means each payment of principal of any Project Bond or Member Obligation: (1) which is commercial paper or otherwise of a revolving or short-term nature and has a maturity of less than 60 months; and (2) for which a certificate of an authorized representative of the Recipient or the applicable Member has been prepared to the effect that the Recipient or Member intends to pay such principal from the proceeds of Project Bonds, Member Obligations or other obligations or moneys other than Revenues or Member Revenues.

"Final Budget Approval" (FBA) means the Division's written approval of the final budget for the Project or a phase of the Project.

"Final Payment Date" is the date by which all principal and accrued interest due under this Agreement is to be paid in full to the State Water Board and is specified on the Cover Page of this Agreement.

"Final Reimbursement Request Date" means the date set forth as such on the Cover Page of this Agreement, after which date, no further Project Funds disbursements may be requested.

"Fiscal Year" means the period of twelve (12) months terminating on June 30 of any year, or any other annual period selected and designated by the Recipient or a Member Agency as its Fiscal Year in accordance with applicable law.

"Force Account" means the use of the Project Parties' own employees, equipment, or resources for the Project.

"GAAP" means generally accepted accounting principles, the uniform accounting and reporting procedures set forth in publications of the American Institute of Certified Public Accountants or its successor, or by any other generally accepted authority on such procedures, and includes, as applicable, the standards set forth by the Governmental Accounting Standards Board or its successor, or the Uniform System of Accounts, as adopted by the California Public Utilities Commission for water utilities.

"Guidelines" means the State Water Board's "Water Recycling Funding Program guidelines," in effect as of the execution date of this Agreement.

"Indirect Costs" means those costs that are incurred for a common or joint purpose benefiting more than one cost objective and are not readily assignable to the Project (i.e., costs that are not directly related to the Project). Examples of Indirect Costs include, but are not limited to: central service costs; general administration of the Recipient; non-project-specific accounting and personnel services performed within the Recipient organization; depreciation or use allowances on buildings and equipment; the costs of operating and maintaining non-project-specific facilities; tuition and conference fees; generic overhead or markup; and taxes.

"Initiation of Construction" means the date that notice to proceed with work is issued for the Project, or, if notice to proceed is not required, the date of commencement of building and erection of the Project.

"Joint System" means the facilities owned jointly by the Members pursuant to the Operating JPA Agreement.

"Las Virgenes Member Revenues" means the income, rents, rates, fees, charges, and other moneys derived by Las Virgenes Municipal Water District from the ownership or operation of the Las Virgenes System including, without limiting the generality of the foregoing: (i) all income, rents, rates, fees, charges or other moneys derived from the sale and distribution of potable and recycled water and the collection,

DRAFT

conveyance, treatment, reclamation and disposal of wastewater and other services, facilities and commodities sold, furnished or supplied through the facilities of the Las Virgenes System, including standby and availability charges, capital facilities fees for design, construction and reconstruction expenses, development fees and other fees allocable to the Las Virgenes System; (ii) taxes or assessments as may be imposed if the levy thereof and payment thereof is permitted by law; (iii) the earnings on and income derived from amounts set forth in clauses (i) and (ii) above; and (iv) deposits to Las Virgenes Municipal Water District's Member Enterprise Fund from amounts on deposit in the Las Virgenes Rate Stabilization Fund in accordance with Section 14 of the Las Virgenes Payment Agreement; but excluding in all cases: (x) customers' deposits or any other deposits subject to refund until such deposits have become the property of the Purchaser; (y) proceeds of any taxes or assessments except taxes or assessments described in clause (ii) above; and (z) Las Virgenes Member Revenues transferred from Las Virgenes Municipal Water District's Member Enterprise Fund to the Las Virgenes Rate Stabilization Fund in accordance with Section 4(b)(iii) of the Las Virgenes Payment Agreement.

"Las Virgenes Potable Water Enterprise" means the existing facilities and property owned by Las Virgenes Municipal Water District in connection with the water distribution and supply services of Las Virgenes Municipal Water District, together with all extensions thereof and improvements thereto hereafter acquired, constructed or installed by Las Virgenes Municipal Water District.

"Las Virgenes Rate Stabilization Fund" means the Las Virgenes Municipal Water District account designated as Fund 603, together with other accounts created in the future and designated by the Las Virgenes Municipal Water District Board of Directors as a part of the "Rate Stabilization Fund" created pursuant to Section 14 of the Las Virgenes Payment Agreement.

"Las Virgenes Recycled Water System" means all wastewater, water recycling, and/or potable water collection, pumping, transport, treatment, storage, and/or disposal facilities, including land and easements thereof, owned by Las Virgenes Municipal Water District, and all other properties, structures or works hereafter acquired and constructed by Las Virgenes Municipal Water District and determined to be a part of the Las Virgenes Recycled Water System, together with all additions, betterments, extensions or improvements to such facilities, properties, structures, or works, or any part thereof hereafter acquired and constructed.

"Las Virgenes Subsystem" has the meaning given in Exhibit D.

"Las Virgenes System" means properties and assets, real and personal, tangible and intangible, of Las Virgenes Municipal Water District now or hereafter existing, used or pertaining to the purchase, collection, treatment, pumping, transport, storage, sale and distribution of potable and recycled water and the collection, conveyance, pumping, treatment, reclamation, storage and disposal of wastewater, including all additions, extensions, expansions, improvements and betterments thereto and equipment relating thereto; provided, however, that to the extent that Las Virgenes Municipal Water District is not the sole owner of an asset or property or to the extent that an asset is used only in part for the above-described water or wastewater purposes, only Las Virgenes Municipal Water District's ownership interest in such asset or property or only the part of the asset or property so used for water or wastewater purposes shall be considered to be part of the Las Virgenes System.

"Las Virgenes Wastewater System" means all wastewater collection, pumping, transport, treatment, storage, and disposal facilities, including land and easements thereof, owned by Las Virgenes Municipal Water District, and all other properties, structures, or works hereafter acquired and constructed by Las Virgenes Municipal Water District and determined to be a part of the Las Virgenes Wastewater System, together with all additions, betterments, extensions, or improvements to such facilities, properties, structures, or works, or any part thereof hereafter acquired and constructed.

DRAFT

“Listed Event” means, so long as any Project Party has outstanding any Project Bonds or Member Obligation subject to Rule 15c2-12, any of the events required to be reported with respect to such Project Bonds or Member Obligation pursuant to Rule 15c2-12(b)(5).

“Material Obligation” means an obligation of the Recipient that is material to this transaction, including Project Bonds.

“Maximum Annual Debt Service” means the maximum amount of Debt Service due on Project Bonds or Member Obligations in a Fiscal Year during the period commencing with the Fiscal Year for which such calculation is made and within the next five years in which Debt Service for any Project Bonds or Member Obligations will become due.

“Member Authorized Representative” means, with respect to each Member, the duly appointed representative of the Member as set forth in the certified originals of the authorizing resolution of the Member that designates the authorized representative by title.

“Member Contributions” means deposits to the operations and construction funds of the Operating JPA made by the Members pursuant to the Operating JPA Agreement.

“Member Enterprise Fund” means, with respect to each Member, the enterprise fund of the Member in which Member Revenues are deposited.

“Member Material Obligation” means, with respect to each Member, an obligation of the Member that is material to this transaction, including Member Obligations.

“Member Net Revenues” means, for any Fiscal Year and with respect to each Member, all Member Revenues received by the Member less the Member Operations and Maintenance Costs for such Fiscal Year.

“Member Obligation” means, with respect to each Member, any obligation of the Member payable from the Member Revenues, including but not limited to its Member Payment Obligation, any Member Parity Obligation, any Member Subordinate Obligation, and such additional obligations as may hereafter be issued in accordance with the provisions of such obligation, the Member Payment Agreement, and this Agreement.

“Member Operations and Maintenance Costs” means, with respect to each Member, the reasonable and necessary costs spent or incurred by a Member for maintaining and operating their Member System, determined in accordance with GAAP, including (among other things) payments under the Payment Agreements, all reasonable expenses of management and repair and all other expenses necessary to maintain and preserve the Member System in good repair and working order, and including all reasonable and necessary administrative costs of the Member that are charged directly or apportioned to the operation of the Member System, such as salaries and wages of employees, payments to the Public Employee Retirement System, overhead, taxes (if any), the costs of permits, licenses, charges to operate the Member System and insurance premiums, and potable and recycled water purchase and production costs; but excluding, in all cases (i) depreciation, replacement, and obsolescence charges or reserves therefor and (ii) amortization of intangibles or other bookkeeping entries of a similar nature.

“Member Parity Obligation” means, with respect to each Member, a debt obligation of the Member on parity with the Member’s Member Payment Obligation.

With respect to Las Virgenes Municipal Water District, the Member Parity Obligations are these:

DRAFT

- The Amended and Restated Installment Purchase Agreement by and between Las Virgenes Municipal Water District and Key Government Finance, Inc., dated as of June 1, 2025 relating to the $10,100,000 Las Virgenes Municipal Water District, Potable Water, Series 2020 Placement (the “2020 Las Virgenes IPA”).

With respect to Triunfo Water & Sanitation District, there are no Member Parity Obligations.

“Member Payment Obligation” means, with respect to each Member, the Member’s obligation to make Member Payments for its Allocated Share of any and all amounts owed by the Recipient or the Operating JPA to the State Water Board under this Agreement, including but not limited to Payments and Additional Payments, and the Member’s obligation to make Member Contributions, Reserve Fund Contributions, and Project Bond Payments. Each Member’s Member Payment Obligation shall be secured via its respective Payment Agreement by a pledge of the Member’s Member Net Revenues in accordance with the requirements of Exhibit D.

“Member Payments” means the payments made by each Member under its Payment Agreement reflecting the Members’ Member Payment Obligations.

“Member Revenues” means, for any Fiscal Year, the Las Virgenes Member Revenues with respect to Las Virgenes Municipal Water District and the Triunfo Member Revenues with respect to Triunfo Water & Sanitation District.

“Member Senior Obligation” means, with respect to each Member, a debt obligation of the Member that is senior to the Member’s Member Payment Obligation. There are no Member Senior Obligations.

“Member Subordinate Obligation” means, with respect to each Member, a debt obligation of the Member that is subordinate to the Member’s Member Payment Obligation. There are no Member Subordinate Obligations.

“Member System” means the Las Virgenes System with respect to Las Virgenes Municipal Water District and the Triunfo System with respect to Triunfo Water and Sanitation District (together, the “Member Systems”).

“Members” means the members of the Operating JPA, Las Virgenes Municipal Water District and Triunfo Water and Sanitation District (each, a “Member”).

"Obligation" means the obligation of the Recipient to make Payments (including Additional Payments) as provided herein, as evidenced by the execution of this Agreement, proceeds of such obligations being used to fund the Project as specified in the Project Description in Exhibit A and Exhibit B and in the documents thereby incorporated by reference.

“Operating JPA” means the Las Virgenes-Triunfo Joint Powers Authority. In any provision of this Agreement referencing duties undertaken by the Recipient on behalf of the Operating JPA, the term “Operating JPA” shall also refer to the Recipient.

"Operating JPA Operations and Maintenance Costs" means the reasonable and necessary costs paid or incurred by the Operating JPA for maintaining and operating the Joint System, determined in accordance with GAAP, including all reasonable expenses of management and repair and all other expenses necessary to maintain and preserve the Joint System in good repair and working order, and including all reasonable and necessary administrative costs of the Recipient that are charged directly or apportioned to the operation of the Joint System, such as salaries and wages of employees, overhead, taxes (if any), the cost of permits, licenses, and charges to operate the Joint System and insurance premiums; but

DRAFT

excluding, in all cases depreciation, replacement, and obsolescence charges or reserves therefor and amortization of intangibles.

“Parity Project Bonds” means all Project Bonds currently existing or hereafter issued in accordance with the requirements of Exhibit B which are payable from Revenues on parity with the Obligation. The Parity Project Bonds are these:

- The WIFIA Loan Agreement Pure Water Project Las Virgenes-Triunfo (WIFIA ID – N22127CA), dated as of [insert date], by and among the United States Environmental Protection Agency, the Operating JPA and the Recipient, relating to the [2025 Bonds] (the “WIFIA Loan”)

- [any others issued at execution]

“Payment” means any payment due to the State Water Board from the Recipient pursuant to this Agreement.

“Payment Agreement” means, with respect to Las Virgenes Municipal Water District, the Las Virgenes Municipal Water Payment Agreement attached to this Agreement as Exhibit G (the “Las Virgenes Payment Agreement”), and with respect to Triunfo Water and Sanitation District, the Triunfo Payment Agreement attached to this Agreement as Exhibit H (the “Triunfo Payment Agreement”) (together, the “Payment Agreements”).

"Policy" means the State Water Board's “Policy for Implementing the Clean Drinking Water State Revolving Fund,” as amended from time to time, including the Intended Use Plan in effect as of the execution date of this Agreement.

“Project” means the Project financed by this Agreement as described in Exhibits A and B and in the documents incorporated by reference herein.

“Project Bond Payments” means all payments owed by the Members to the Recipient with respect to Project Bonds other than the Obligation.

“Project Bonds” means all obligations of the Recipient issued or incurred for the purpose of financing the Project and payable from the Revenues either on parity with or subordinate to the Obligation, including the Obligation, all Parity Project Bonds and all Subordinate Project Bonds.

"Project Completion" means the date, as determined by the Division after consultation with the Recipient and the Operating JPA, that operation of the Project is initiated or is capable of being initiated, whichever comes first.

"Project Costs" means the incurred costs of the Recipient or Operating JPA which are eligible for financial assistance under this Agreement, which are allowable costs as defined under the Policy, and which are reasonable, necessary and allocable by the Operating JPA to the Project under GAAP, and may include capitalized interest.

“Project Funds” means all moneys disbursed to the Recipient by the State Water Board for eligible Project Costs pursuant to this Agreement.

“Project Parties” means the Recipient, the Operating JPA, and the Members (each, a “Project Party”).

“Recipient” means Las Virgenes-Triunfo Public Financing Authority. In any provision of this Agreement referencing duties undertaken by the Operating JPA on behalf of the Recipient, the term “Recipient” shall also refer to the Operating JPA.

DRAFT

"Records Retention End Date" means the last date that the Recipient is obligated to maintain records and is set forth on the Cover Page of this Agreement.

"Regional Water Quality Control Board" or "Regional Water Board" means the appropriate Regional Water Quality Control Board.

"Reimbursement Resolution" means the Recipient's reimbursement resolution identified and incorporated by reference in this Agreement.

"Reserve Fund" means the reserve fund required pursuant to Exhibit B of this Agreement.

"Reserve Fund Contributions" means the contributions of the Members to the Recipient made pursuant to the Payment Agreements for the purpose of funding their Allocated Share of the Reserve Fund.

"Revenue Fund" means the special fund of the Recipient in which Revenues are deposited and which fund the Recipient agrees and covenants to hold separate and apart from other funds so long as any Project Bonds remain unpaid.

"Revenues" means the payments received by the Recipient (or by a trustee or holder of Project Bonds) from the Members under the Payment Agreements reflecting each Member's Allocated Share of Payments, Additional Payments, Reserve Fund Contributions, and Project Bond Payments.

"Rule 15c2-12(b)(5)" means Rule 15c2-12(b)(5) promulgated by the Securities and Exchange Commission pursuant to the Securities Exchange Act of 1934, as amended.

"Senior Obligation" means a debt obligation of the Recipient that is senior to this Obligation. There are no Senior Obligations.

"SRF" means the Clean Water State Revolving Fund.

"State" means State of California.

"State Water Board" means the State Water Resources Control Board.

"Subordinate Project Bonds" means all Project Bonds currently existing or hereafter issued in accordance with the requirements of Exhibit B which are payable from Revenues subordinate to the Obligation. There are no Subordinate Project Bonds.

"Triunfo Member Revenues" means the income, rents, rates, fees, charges, and other moneys derived by Triunfo Water & Sanitation District from the ownership or operation of the Triunfo System including, without limiting the generality of the foregoing: (i) all income, rents, rates, fees, charges or other moneys derived from the collection, conveyance, treatment, reclamation and disposal of wastewater and other services, facilities and commodities sold, furnished or supplied through the facilities of the Triunfo System, including standby and availability charges, capital facilities fees for design, construction and reconstruction expenses, development fees and other fees allocable to the Triunfo System; (ii) taxes or assessments as may be imposed if the levy thereof and payment thereof is permitted by law; (iii) the earnings on and income derived from amounts set forth in clauses (i) and (ii) above; and (iv) deposits to Triunfo Water & Sanitation District's Member Enterprise Fund from amounts on deposit in the Triunfo Rate Stabilization Fund in accordance with Section 14 of the Triunfo Payment Agreement; but excluding in all cases: (x) customers' deposits or any other deposits subject to refund until such deposits have become the property of Triunfo Water & Sanitation District; (y) proceeds of any taxes or assessments except taxes or assessments described in clause (ii) above; and (z) Triunfo Member Revenues

DRAFT

transferred from Triunfo Water & Sanitation District's Member Enterprise Fund to the Triunfo Rate Stabilization Fund in accordance with Section 4(b)(iii) of the Triunfo Payment Agreement.

"Triunfo Rate Stabilization Fund" means the Purchaser account designated as account number 90040, together with other accounts created in the future and designated by the Board of Directors of Triunfo Water & Sanitation District as a part of the Rate Stabilization Fund created pursuant to Section 14 of the Triunfo Payment Agreement.

"Triunfo System" means properties and assets, real and personal, tangible and intangible, of Triunfo Water and Sanitation District now or hereafter existing, used or pertaining to the collection, conveyance, treatment, storage, reclamation and disposal of wastewater, including all additions, extensions, expansions, improvements and betterments thereto and equipment relating thereto; provided, however, that to the extent that Triunfo Water and Sanitation District is not the sole owner of an asset or property or to the extent that an asset or property is used only in part for the above-described wastewater purposes, only Triunfo Water and Sanitation District's ownership interest in such asset or property or only the part of the asset or property so used for wastewater purposes shall be considered to be part of the Triunfo System.

"Useful Life" means the economically useful life of the Project beginning at Completion of Construction and is set forth in Exhibit A.

"Water Supply Debt" means a payment obligation of the Recipient, the Operating JPA, or any Member which is payable from the Revenues or the Member Revenues and arises pursuant to any agreement for the purchase or supply of water, which obligation: (a)(i) is owed by the Recipient, Operating JPA, or Member irrespective of the amount of water such party receives under the agreement, including if such entity receives no water under the agreement, and (ii) reflects principal and interest on, or reimbursement of, capital costs incurred by the counterparty to the agreement; or (b) is paid for the benefit of the creditors of the counterparty to the agreement. The Recipient, Operating JPA, and the Members have no Water Supply Debt.

"Year" means calendar year unless otherwise expressly indicated.

DRAFT

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY:

By:_____
Name: [Officer]
Title: [Title1]

Date:_____

LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY:

By:_____
Name: [Officer]
Title: [Title1]

Date:_____

STATE WATER RESOURCES CONTROL BOARD:

By:_____
Name: [Officer]
Title: Deputy Director
Division of Financial Assistance

Date:_____

DRAFT

EXHIBIT A – SCOPE OF WORK

A.1. PROJECT DESCRIPTION, USEFUL LIFE, AND SCOPE OF WORK.

(a) The Project is the project set forth on the Cover Page of this Agreement.

(b) The Useful Life of this Project is at least _____years.

(c) Project Purpose and Description

[leave placeholder “to be inserted by DFA”]

(d) Scope of Work.

The Operating JPA agrees to do the following:

[leave placeholder “to be inserted by DFA”]

A.2. STANDARD PROJECT REQUIREMENTS.

A.2.1 Acknowledgements.

The Recipient and Operating JPA shall include the following acknowledgement in any document, written report, or brochure prepared in whole or in part pursuant to this Agreement:

“Funding for this project has been provided in full or in part through Agreement No. Dxxxxxx with the State Water Resources Control Board. California’s Clean Water State Revolving Fund is capitalized through a variety of funding sources, including grants from the United States Environmental Protection Agency and state bond proceeds. The contents of this document do not necessarily reflect the views and policies of the foregoing agencies, nor do the foregoing agencies endorse trade names or recommend the use of commercial products mentioned in this document, as well as images, video, text, or other content created by generative artificial intelligence tools, nor does any such content reflect the views and policies of the foregoing.

A.2.2 Reports

A.2.2.1 Progress Reports.

(a) The Recipient must provide a progress report to the Division each quarter, beginning no later than 90 days after execution of this Agreement.

(b) The Recipient must provide a progress report with each reimbursement request. Failure to provide a complete and accurate progress report may result in the withholding of Project Funds, as set forth in Exhibit B.

(c) A progress report must contain the following information:

i. A summary of progress to date including a description of progress since the last report, percent construction complete, percent contractor invoiced, and percent schedule elapsed;

ii. A description of compliance with environmental requirements;

DRAFT

iii. A listing of change orders including amount, description of work, and change in contract amount and schedule; and

iv. Any problems encountered, proposed resolution, schedule for resolution, and status of previous problem resolutions.

A.2.2.2 Project Completion Report.

(a) The Recipient or Operating JPA must submit a Project Completion Report to the Division with a copy to the appropriate Regional Water Board on or before the due date established by the Division and the Recipient at the time of final project inspection. The Project Completion Report must include the following:

i. Description of the Project,

ii. Description of the water quality problem the Project sought to address,

iii. Discussion of the Project's likelihood of successfully addressing that water quality problem in the future, and

iv. Summary of compliance with applicable environmental conditions.

(b) If the Recipient and Operating JPA fail to submit a timely Project Completion Report, the State Water Board may stop processing pending or future applications for new financial assistance, withhold disbursements under this Agreement or other agreements, and begin administrative proceedings.

A.2.2.3 As Needed Reports.

The Recipient must provide expeditiously, during the term of this Agreement, any reports, data, and information reasonably required by the Division, including but not limited to material necessary or appropriate for evaluation of the funding program or to fulfill any reporting requirements of the state or federal government.

A.2.2.4 Recycled water reports.

(a) Commencing with the date of Project Completion, the Recipient or Operating JPA must submit annual reports for five (5) consecutive calendar years or until the Project's actual total annual recycled water deliveries equal the Project's planned total recycled water deliveries.

(b) The Recipient or Operating JPA must submit annual reports in hard copy and/or electronically.

(c) The first annual report is due on February 28th following the first full calendar year of operation and shall cover the period from the Project Completion through the end of the first full calendar year thereafter. Subsequent annual reports are due by February 28th following the calendar year covered. The annual reports shall be prepared in accordance with the "Water Recycling Funding Program Guidelines."

(d) The annual reports must include the following:

i. The planned total recycled water deliveries from the Recipient's funding application/user-connection schedule;

DRAFT

ii. A breakdown of the actual total annual recycled water deliveries by month and type of use, presented in a table showing month vs. type of use. If the Recipient supplements recycled water deliveries with potable or fresh water, the annual report must include the monthly and total amounts;

iii. The Project's operation and maintenance costs for the year;

iv. The costs to Recipient's end users of recycled water vs. potable/fresh water during the year; and

v. If the Project's actual total recycled water deliveries are less than the planned total recycled water deliveries, the Recipient or Operating JPA must provide a brief discussion on its progress toward achieving the remaining system capacity.

A.2.2.5 Disadvantaged Business Enterprise Good Faith Efforts.

The Recipient shall comply with the applicable Disadvantaged Business Enterprises (DBE) requirements in 40 CFR part 33 for the Project and require its prime contractors on the Project to comply. 40 CFR § 33.301 requires the use of good faith efforts to utilize DBE's whenever procuring construction, equipment, services, and supplies. 40 CFR § 33.501 includes recordkeeping requirements. If required by the Division, the Recipient must provide such information as may be requested demonstrating compliance with DBE requirements.

A.2.3 Signage.

The Operating JPA or Recipient shall place a sign at least four feet tall by eight feet wide made of ¾ inch thick exterior grade plywood or other approved material in a prominent location on the Project site and shall maintain the sign in good condition for the duration of the construction period. The sign must include the following disclosure statement and color logos (available from the Division):

a. Clean Water State Revolving Fund · California Water Boards · EPA United States Environmental Protection Agency · CLIMATE BOND PROP 4 • 2024 GOVERNOR GAVIN NEWSOM STATE OF CALIFORNIA

"Funding for this $xx million [name of project] project has been provided in full or in part by Proposition 1 -- the Water Quality, Supply, and Infrastructure Improvement Act of 2014 and the Clean Water State Revolving Fund through an agreement with the State Water Resources Control Board. California's Clean Water State Revolving Fund is capitalized through a variety of funding sources, including grants from the United States Environmental Protection Agency and state bond proceeds, including the Safe Drinking Water, Wildfire Prevention, Drought Preparedness and Clean Air Bond Act of 2024."

b. The Project sign may include another agency's required promotional information so long as the above logos and disclosure statement are equally prominent on the sign. The sign shall be prepared in a professional manner.

A.2.4 Commencement of Operations.

DRAFT

Upon Completion of Construction of the Project, the Operating JPA must expeditiously initiate Project operations.

A.3 DATES & DELIVERABLES.

(a) Time is of the essence.

(b) The Operating JPA must expeditiously proceed with and complete construction of the Project.

(c) The following dates are established as on the Cover Page of this Agreement:

i. Eligible Work Start Date
ii. Eligible Construction Start Date
iii. Completion of Construction Date
iv. Final Reimbursement Request Date
v. Records Retention End Date
vi. Final Payment Date

(d) The Operating JPA must award the prime construction contract timely.
(e) The Operating JPA agrees to start construction no later than six (6) months after the execution of this Agreement
(f) The Recipient must deliver any request for extension of the Completion of Construction date no less than 90 days prior to the Completion of Construction date.

(g) The undisbursed balance of this Agreement will be deobligated if the Recipient does not provide its final reimbursement request to the Division on or before the Final Reimbursement Request Date.

(h) Upon request by the Division, the Recipient shall submit verifiable data to support deliverables specified in the Scope of Work. The Recipient's failure to comply with this requirement may be construed as a material breach of this Agreement.

A.4 SCHEDULE.

Failure to provide items by the due dates indicated in the table below may constitute a material violation of this Agreement. The Project Manager may adjust the dates in the "Estimated Due Date" column of this table, but Critical Due Date adjustments will require an amendment to this Agreement. The Recipient and Operating JPA must complete and submit all work in time to be approved by the Division prior to Project Completion. As applicable for specific submittals, the Recipient and Operating JPA must plan adequate time to solicit, receive, and address comments prior to submitting the final submittal. The Recipient must submit the final reimbursement request prior to the Final Reimbursement Request Date set forth on the Cover Page.

[DFA will insert Schedule of Deliverables]

DRAFT

EXHIBIT B – FUNDING TERMS

B.1. FUNDING AMOUNTS AND REIMBURSEMENTS

B.1.1 Funding Contingency and Other Sources.

(a) If this Agreement's funding for any fiscal year expires due to reversion or is reduced, substantially delayed, or deleted by the state or federal government, such as by budget act, by executive order, or by order or action of the Department of Finance or a federal agency, the State Water Board has the option to either cancel this Agreement with no liability accruing to the State Water Board, or offer an amendment to the Recipient to reflect the reduced amount.

(b) If funding for Project Costs is made available to the Recipient from sources other than this Agreement, the Recipient must notify the Division. The Recipient may retain such funding up to an amount which equals the Recipient's share of Project Costs. To the extent allowed by requirements of other funding sources, excess funding must be remitted to the State Water Board to be applied to Payments due hereunder, if any.

B.1.2 Estimated Reasonable Cost.

The estimated reasonable cost of the total Project, including associated planning and design costs is Written Dollar Amount dollars and no cents ($Dollar Amount).

B.1.3 Project Funding Amount.

Subject to the terms of this Agreement, the State Water Board agrees to provide Project Funds not to exceed the amount of the Project Funding Amount set forth on the Cover Page of this Agreement.

B.1.4 Grant Component.

(a) Contingent on the Recipient's performance of its obligations under this Agreement, the State Water Board will make a grant of not to exceed the amount of the Total Grant Component set forth on the Cover Page of this Agreement, including the Proposition 4 Grant Component and the General Fund Grant Component.

(b) Upon Completion of Construction, the State Water Board will prepare an alternate payment schedule reflecting this grant.

B. 1.5 Budget Costs.

(a) Estimated budget costs are contained in the Summary Project Cost Table below:

[DFA will insert table]

The Division's Final Budget Approval and related Form 259 and Form 260 will document a more detailed budget of eligible Project Costs and Project funding amounts. Construction of the Project may be completed in phases with written approval of the Division. If construction proceeds under separate phases, the Recipient must submit a Final Budget Approval package and receive Final Budget Approval from the Division for each phase.

DRAFT

Project Costs incurred prior to November 5, 2024 are not eligible for the Total Grant Component under this Agreement. The Recipient must not request reimbursement of Project Costs incurred prior to November 5, 2024 in excess of $69,240,031.00. The Proposition 4 Grant Component Project Funds, in the amount of $13,619,226.00, may not be available to reimburse Project Costs requested after February 28, 2033. If the Recipient has not requested reimbursement of Project Costs incurred on or after November 5, 2024, through submittal of complete, adequately supported, properly documented, and adequately addressed reimbursement requests in accordance with the reimbursement procedures contained in this Exhibit B, in an amount of no less than $13,619,226.00 by February 28, 2033 the difference may revert to the State Water Board and may no longer be available under this Agreement, with no liability accruing to the State Water Board.

The General Fund Grant Component Project Funds, in the amount of $1,380,774.00, may not be available to reimburse Project Costs requested after March 1, 2029. If the Recipient has not requested reimbursement of Project Costs incurred on or after July 1, 2024, through submittal of complete, adequately supported, properly documented, and adequately addressed reimbursement requests in accordance with the reimbursement procedures contained in this Exhibit B, in an amount of no less than $1,380,774.00 by March 1, 2029, the difference may revert to the State Water Board and may no longer be available under this Agreement, with no liability accruing to the State Water Board.

Upon written request by the Recipient, the Division may adjust the line items of the budget at the time of Division's Final Budget Approval(s). Upon written request by the Recipient, the Division may also adjust the line items of the budget at the time of Recipient's submittal of its final claim. Any line item adjustments to the budget that are due to a change in scope of work will require an Agreement amendment. The sum of adjusted line items in the budget approved through the Final Budget Approval process must not exceed the Project Funding Amount. The Division may also propose budget adjustments.

(b) Under no circumstances may the sum of line items in the budget approved through the Final Budget Approval process exceed the Project Funding Amount. Any increase in the Project Funding Amount will require an Agreement amendment.

B.1.6 Contingent Disbursement.

(a) The State Water Board's disbursement of funds hereunder is contingent on the compliance of the Recipient and Operating JPA with the terms and conditions of this Agreement.

(b) The State Water Board's obligation to disburse Project Funds is contingent upon the availability of sufficient funds to permit the disbursements provided for herein. If sufficient funds are not available for any reason, including but not limited to failure of the federal or State government to appropriate funds necessary for disbursement of Project Funds, the State Water Board shall not be obligated to make any disbursements to the Recipient under this Agreement. This provision shall be construed as a condition precedent to the obligation of the State Water Board to make any disbursements under this Agreement. Nothing in this Agreement shall be construed to provide the Recipient with a right of priority for disbursement over any other entity. If any disbursements due the Recipient under this Agreement are deferred because sufficient funds are unavailable, it is the intention of the State Water Board that such disbursement will be made to the Recipient when sufficient funds do become available, but this intention is not binding.

(c) Construction costs and disbursements are not available until after the Division has approved the final budget form submitted by the Recipient for the corresponding costs.

(d) No costs incurred prior to the Eligible Work Start Date are eligible for reimbursement.

(e) Construction costs incurred prior to the Eligible Construction Start Date are not eligible for reimbursement.

(f) Failure to proceed according to the timelines set forth in this Agreement may require the Recipient to repay to the State Water Board all disbursed Project Funds.

(g) The Recipient agrees to ensure that its final reimbursement request is received by the Division no later than the Final Reimbursement Request Date. If the final reimbursement request is not received timely, the undisbursed balance of this Agreement will be deobligated.

(h) The Recipient is not entitled to interest earned on undisbursed funds.

B.1.7 Reimbursement Procedure.

Except as may be otherwise provided in this Agreement, disbursement of Project Funds will be made as follows:

(a) Upon execution and delivery of this Agreement by the parties, the Recipient may request immediate reimbursement of any eligible incurred planning and design allowance costs through submission to the State Water Board of the Reimbursement Request Form 260 and Form 261, or any amendment thereto, duly completed and executed. To be eligible for reimbursement, Project Costs, including any planning and design allowance costs, must have been incurred in compliance with all applicable requirements, including the state and federal cross-cutting requirements listed in Exhibit C.

(b) The Recipient must submit a reimbursement request for costs incurred prior to the date this Agreement is executed by the State Water Board no later than ninety (90) days after this Agreement is executed by the State Water Board. Late reimbursement requests may not be honored.

(c) The Recipient may request reimbursement of eligible construction and equipment costs consistent with budget amounts approved by the Division in the Final Budget Approval.

(d) Additional Project Funds will be promptly disbursed to the Recipient upon receipt of reimbursement request Form 260 and Form 261, or any amendment thereto, duly completed and executed by the Recipient for incurred costs consistent with this Agreement, along with receipt of progress reports due under Exhibit A.

(e) The Recipient must not request reimbursement for any Project Cost until such cost has been incurred and is currently due and payable by the Recipient, although the actual payment of such cost by the Recipient is not required as a condition of reimbursement request. Supporting documentation (e.g., receipts) must be submitted with each reimbursement request. The amount requested for administration costs must include a calculation formula (i.e., hours or days worked times the hourly or daily rate = total amount claimed). Disbursement of Project Funds will be made only after receipt of a complete, adequately supported, properly documented, and accurately addressed reimbursement request. Upon request by the Division, supporting documents for professional and administrative services must include the employees' names, classifications, labor rates, hours worked, and descriptions of the tasks performed. Reimbursement requests submitted without supporting documents may be wholly or partially withheld at the discretion of the Division.

(f) The Recipient must spend Project Funds within 30 days of receipt. If the Recipient earns interest earned on Project Funds, it must report that interest immediately to the State Water Board. The State Water Board may deduct earned interest from future disbursements.

DRAFT

(g) The Recipient shall not request a reimbursement unless that Project Cost is allowable, reasonable, and allocable.

(h) Notwithstanding any other provision of this Agreement, no disbursement shall be required at any time or in any manner which is in violation of or in conflict with federal or state laws, policies, or regulations.

(i) No work or travel outside the State of California is permitted under this Agreement unless the Division provides prior written authorization. Failure to comply with this restriction may result in termination this Agreement, pursuant to Exhibit C. Any reimbursement for necessary travel and per diem shall be at rates not to exceed those set by the California Department of Human Resources at http://www.calhr.ca.gov/employees/Pages/travel-reimbursements.aspx. as of the date costs are incurred by the Recipient.

B.1.8 Withholding of Disbursements.

Notwithstanding any other provision of this Agreement, the State Water Board may withhold all or any portion of the Project Funds upon the occurrence of any of the following events:

(a) The failure of the Recipient or Operating JPA to maintain reasonable progress on the Project as determined by the Division;
(b) Placement on the ballot or passage of an initiative or referendum to repeal or reduce any Member's taxes, assessments, fees, or charges levied for operation of the Member System or payment of debt service on Member Obligations;
(c) Commencement of litigation or a judicial or administrative proceeding related to the Project, Joint System, Revenues, any Member System, or Member Revenues that the State Water Board determines may impair the timely satisfaction of Recipient's obligations under this Agreement;
(d) Any investigation by the State Water Board, District Attorney, California State Auditor, Bureau of State Audits, the USEPA Office of Inspector General, the Internal Revenue Service, Securities and Exchange Commission, a grand jury, or any other state or federal agency, relating to the financial management, accounting procedures, or internal fiscal controls of any Project Party;
(e) A material adverse change in the condition of any Project Party, the Revenues, any Member Revenues, Joint System, or any Member System that the Division reasonably determines would materially impair the Recipient's ability to satisfy its obligations under this Agreement, or any other event that the Division reasonably determines would materially impair the Recipient's ability to satisfy its obligations under this Agreement;
(f) The Recipient or Operating JPA's material violation of, or threat to materially violate, any term of this Agreement;
(g) Suspicion of fraud, forgery, embezzlement, theft, or any other misuse of public funds by any Project Party or its employees, or by its contractors or agents regarding the Project, the Joint System, or any Member System;
(h) An event requiring Notice as set forth in Exhibit C;
(i) An Event of Default or an event that the Division determines may become an Event of Default.

B.1.9 Fraud and Misuse of Public Funds; Enforcement.

All requests for reimbursement submitted must be accurate and signed by the Recipient's Authorized Representative under penalty of perjury. All costs submitted pursuant to this Agreement must only be for the work or tasks set forth in this Agreement. The Recipient must not submit any invoice containing costs that are ineligible or have been reimbursed from other funding sources unless required and specifically noted as such (i.e., match costs). Any eligible costs for which the Recipient is seeking reimbursement

DRAFT

shall not be reimbursed from any other source. Double or multiple billing for time, services, or any other eligible cost is improper and will not be compensated. Any suspected occurrences of fraud, forgery, embezzlement, theft, or any other misuse of public funds may result in suspension of disbursements and, notwithstanding any other section in this Agreement, the termination of this Agreement requiring the repayment of all Project Funds disbursed hereunder. Additionally, the Deputy Director of the Division may request an audit; refer the matter for appropriate administrative action, including but not limited to the recovery of financial assistance provided and the imposition of civil penalties; and/or refer the matter to the Attorney General's Office or the appropriate district attorney's office for criminal prosecution or the imposition of civil liability. A person who knowingly makes or causes to be made any false statement, material misrepresentation, or false certification in any submittal may be subject to a civil penalty, criminal fine, or imprisonment. (Wat. Code, § 13490 et seq.)

B.2 RECIPIENT'S PAYMENT OBLIGATION, PLEDGE, AND RESERVE

B.2.1 Project Costs.

The Recipient must pay any and all costs connected with the Project including, without limitation, any and all Project Costs and Additional Payments. If the Project Funds are not sufficient to pay the Project Costs in full, the Recipient must nonetheless complete the Project and pay that portion of the Project Costs in excess of available Project Funds, and shall not be entitled to any reimbursement therefor from the State Water Board.

B.2.2 Estimated Principal Payment Due.

The estimated amount of principal that will be due to the State Water Board from the Recipient under this Agreement is Written Dollar Amount dollars and no cents ($Dollar Amount).

B.2.3 Interest Rate and In-Lieu of Interest Charges.

(a) The Recipient agrees to make all Payments according to the schedule in Exhibit E, and as otherwise set forth herein, at an interest rate of Written Interest Rate % (X%) per annum.

(b) Interest will accrue beginning with each disbursement of repayable funds. Interest accrued prior to Completion of Construction will be Construction Period Interest and will be capitalized. At Completion of Construction, all accrued Construction Period Interest will be added to the principal amount. The final Payment Schedule will reflect the inclusion of Construction Period Interest in the principal amount.

(c) Construction Period Interest cannot be estimated at the date of execution of this Agreement. Estimated payments in the preliminary Payment Schedule, attached as Exhibit E, will include zero Construction Period Interest. Construction Period Interest will accrue as the Recipient receives disbursements. The total amount of Construction Period Interest owed by the Recipient will not be finalized until Completion of Construction.

(d) In lieu of, and not to exceed, interest otherwise due under this Agreement, the Recipient agrees to pay the following charge(s), as further set forth in Exhibit E:

- an Administrative Service Charge
- a Small Community Grant Fund Charge

B.2.4 [Reserved].

B.2.5 Obligation Absolute.

DRAFT

The obligation of the Recipient to make the Payments and other payments required to be made by it under this Agreement, from the Revenues and/or other amounts legally available to the Recipient therefor, is absolute and unconditional, and until such time as the Payments and Additional Payments have been paid in full, the Recipient must not discontinue or suspend any Payments or other payments required to be made by it hereunder when due, whether or not the Project, or any related part thereof is operating or operable or has been completed, or its use is suspended, interfered with, reduced or curtailed or terminated in whole or in part, and such Payments and other payments shall not be subject to reduction whether by offset or otherwise and shall not be conditional upon the performance or nonperformance by any party of any agreement for any cause whatsoever.

B.2.6 Payment Timing.

(a) The Recipient must make the first annual Payment of the principal due under this Agreement, including capitalized Construction Period Interest, together with all interest accruing thereon, by the Payment Start Date indicated on the Cover Page. The Recipient must make annual Payments, due by [DFA to fill in day and month – match Payment Start Date], fully amortizing the total principal due under this Agreement, together with interest, by the Final Payment Date stated on the Cover Page. Payment calculations are based on a standard fully amortized assistance amount with equal annual payments. As a courtesy, the Division will provide a payment notice to the Recipient prior to the Payment due date, which will include the Payment amount due. Regardless of the delivery of a payment notice, the Recipient is responsible for timely payment of all amounts due.

(b) The remaining balance is the previous balance, plus the disbursements, plus the accrued interest on both, plus any Charge In Lieu of Interest, less the Payment. Payment calculations will be made prior to the Payment Start Date. Exhibit E is a payment schedule based on the provisions of this Exhibit and an estimated disbursement schedule. Actual payments will be based on actual disbursements. The Division will prepare any necessary changes to the payment schedule and send them to the Recipient.

(c) Upon Completion of Construction and submission of necessary reports by the Recipient, the Division will prepare an appropriate payment schedule and supply the same to the Recipient. The Division may amend this schedule as necessary to accurately reflect amounts due under this Agreement.

(d) The Recipient must make each Payment on or before the due date therefor. A ten (10) day grace period will be allowed, after which time a penalty in the amount of costs incurred by the State Water Board will be assessed for late payment. These costs may include, but are not limited to, lost interest earnings, staff time, bond debt service default penalties, if any, and other related costs. For purposes of penalty assessment, payment will be deemed to have been made if payment is deposited in the U.S. Mail within the grace period with postage prepaid and properly addressed. Any penalties assessed will not be added to the assistance amount balance,but will be treated as a separate account and obligation of the Recipient. The interest penalty will be assessed from the payment due date.

(e) The Recipient is obligated to make all payments required by this Agreement to the State Water Board, notwithstanding any individual default by the Members or others in the payment to the Recipient of fees, charges, taxes, assessments, tolls, Member Payments or other charges ("Charges") levied or imposed by the Recipient. The Recipient must provide for the punctual payment to the State Water Board of all amounts which become due under this Agreement and which are received from the Members or others in the payment to the Recipient. In the event of failure, neglect or refusal of any officer of the Recipient to levy or cause to be levied any Charge to provide payment by the Recipient under this Agreement, to enforce or to collect such Charge, or to pay over to the State Water Board any money collected on account of such Charge necessary to satisfy any amount due under this Agreement, the State Water Board may take such action in a court of competent jurisdiction as it deems necessary to compel the performance of all duties relating to the imposition or levying and collection of any of such Charges and the payment of the money collected therefrom to the State Water Board. Action taken pursuant hereto

DRAFT

shall not deprive the State Water Board of, or limit the application of, any other remedy provided by law or by this Agreement.

(f) Each Payment must be paid in lawful money of the United States of America by check or other acceptable form of payment set forth at www.waterboards.ca.gov/make_a_payment.
The Recipient must pay Payments and Additional Payments from Revenues and/or other amounts legally available to the Recipient therefor.

B.2.7 Pledged Revenues.

B.2.7.1 Establishment of Revenue Fund and Reserve Fund.

In order to carry out the Project Bonds, the Recipient covenants that it shall establish and maintain or shall have established and maintained the Revenue Fund. All Revenues received shall be deposited when and as received in trust in the Revenue Fund. As required in this Exhibit, the Recipient must establish and maintain a Reserve Fund.

B.2.7.2 Pledge of Revenues, Revenue Fund, and Reserve Fund.

The Obligation hereunder shall be secured by a lien on and pledge of the Revenue Fund and Revenues on parity with the Parity Project Bonds, and by a first and exclusive lien on the Reserve Fund. The Recipient hereby pledges and grants such lien on and pledge of the Revenue Fund, Revenues, and the Reserve Fund to secure the Obligation, including payment of Payments and Additional Payments hereunder. The Revenue Fund, Revenues in the Revenue Fund, and the Reserve Fund shall be subject to the lien of such pledge without any physical delivery thereof or further act, and the lien of such pledge shall be valid and binding as against all parties having claims of any kind in tort, contract, or otherwise against the Recipient.

B.2.7.3 Application and Purpose of the Revenue Fund.

Subject to the provisions of any outstanding Project Bond, money on deposit in the Revenue Fund shall be applied and used exclusively to pay all amounts due and payable with respect to the Project Bonds in order of priority, including the funding of the Reserve Fund and any other reserve funds or accounts established for Project Bonds. After making all payments hereinabove required to be made in each Fiscal Year, the Recipient may expend in such Fiscal Year any remaining money in the Revenue Fund for any lawful purpose of the Recipient.

B.2.8 No Prepayment.

Pursuant to State Water Board's Debt Management Policy, adopted on October 3, 2017, the Recipient may not prepay any portion of the principal and interest due under this Agreement without the written consent of the Deputy Director of the Division.

B.2.9 Reserve Fund.

Prior to Completion of Construction, the Recipient must establish a restricted Reserve Fund, held in its Revenue Fund, equal to one year's Debt Service on this Obligation. The Recipient shall require the Members to fund the Reserve Fund through Reserve Fund Contributions in the amount of each Member's Allocated Share. The Recipient must maintain the Reserve Fund throughout the term of this Agreement. The Reserve Fund is subject to lien and pledged as security for this Obligation, and its use is restricted to payment of this Obligation during the term of this Agreement.

B.3 COLLECTION OF MEMBER CONTRIBUTIONS AND MEMBER PAYMENTS.

DRAFT

(a) The Recipient must during each Fiscal Year, pursuant to the Payment Agreements, collect Member Payments from the Members which will be sufficient to generate Revenues in the amounts necessary to ensure that Revenues are equal to at least 100% of the Debt Service with respect to all outstanding Project Bonds in such Fiscal Year.

(b) The Operating JPA must during each Fiscal Year, pursuant to the Operating JPA Agreement, collect Member Contributions from the Members in amounts equaling at least the whole amount of Operating JPA Operations and Maintenance Costs.

(c) The Recipient may make adjustments from time to time in the amounts of Member Payments and Member Contributions as it deems necessary, but shall not reduce amounts of the Member Payments and Member Contributions then in effect unless the Revenues and Member Contributions from such reduction will at all times be sufficient to meet the requirements of this section.

B.4 ADDITIONAL PROJECT BONDS.

(a) The Recipient's future debt that is secured by Revenues pledged herein may not be senior to this Obligation.
(b) The Recipient may issue additional Parity Project Bonds or Subordinate Project Bonds only if all of the following conditions are met:

i. No Event of Default (or no event with respect to which notice has been given and which, once all notice of grace periods have passed, would constitute an Event of Default) has occurred and is continuing;
ii. Member Net Revenues for each of the Members in the most recent Fiscal Year, excluding transfers from a rate stabilization fund, if any, meet the ratio for rate covenants set forth in Exhibit D with respect to any outstanding and proposed additional obligations;
iii. The Recipient is in compliance with the reserve fund requirement of this Obligation.

(c) The Recipient may not issue any future debt secured by Revenues pledged herein except for Project Bonds.

(d) For any additional Project Bonds issued by the Recipient, the Recipient shall make best efforts to synchronize the payment schedule for Debt Service on such additional Project Bonds with the payment schedule for this Obligation supplied by the Division pursuant to B.2.6(c) or in the event such schedule has not been supplied by the Division, the preliminary schedule provided by the State Water Board on the Effective Date of this Agreement included as Exhibit E to this Agreement.

B.5 NO LIENS.

The Recipient and Operating JPA must not make any pledge of or place any lien on the Project, Joint System, or Revenues except as otherwise provided or permitted by this Agreement.

DRAFT

EXHIBIT C – GENERAL & PROGRAMMATIC TERMS & CONDITIONS

C.1 REPRESENTATIONS & WARRANTIES.

The Recipient and Operating JPA represents, warrants, and commits to the following as of the Eligible Work Start Date and continuing thereafter for the term of this Agreement.

C.1.1 Application and General Recipient Commitments.

The Recipient and the Operating JPA have not made any untrue statement of a material fact in their application for this financial assistance, or omitted to state in their application a material fact that makes the statements in their application not misleading.

The Recipient and the Operating JPA agree to comply with all terms, provisions, conditions, and commitments of this Agreement, including all incorporated documents.

The Recipient and the Operating JPA agree to fulfill all assurances, declarations, representations, and commitments in their application, accompanying documents, and communications filed in support of its request for funding under this Agreement.

C.1.2 Authorization and Validity.

The execution and delivery of this Agreement, including all incorporated documents, has been duly authorized by the Recipient and the Operating JPA. Upon execution by all parties, this Agreement constitutes a valid and binding obligation of the Recipient and of the Operating JPA, enforceable in accordance with its terms, except as such enforcement may be limited by law.

C.1.3 No Violations.

The execution, delivery, and performance by the Recipient and the Operating JPA of this Agreement, including all incorporated documents, do not violate any provision of any law or regulation in effect as of the dates of execution of this Agreement by the Recipient and the Operating JPA, or result in any breach or default under any contract, obligation, indenture, or other instrument to which the Recipient or the Operating JPA is a party or by which the Recipient or the Operating JPA is bound as of the date of execution of this Agreement by the Recipient.

C.1.4 No Litigation.

There are, as of the dates of execution of this Agreement by the Recipient and the Operating JPA, no pending or, to the knowledge of the Recipient or the Operating JPA, threatened actions, claims, investigations, suits, or proceedings before any governmental authority, court, or administrative agency which materially affect, or, if resolved unfavorably to the Recipient or Operating JPA, would materially affect the financial condition or operations of the Recipient, the Operating JPA, the Joint System, any Member, any Member System, the Member Revenues, and/or the Project.

There are no proceedings, actions, or offers by a public entity to acquire by purchase or the power of eminent domain the Joint System or any of the real or personal property related to or necessary for the Project.

C.1.5 Property Rights.

DRAFT

The Operating JPA owns or has sufficient property rights in the Project property for the longer of the Useful Life or the term of this Agreement, either in fee simple or for a term of years that is not subject to third-party revocation during the Useful Life of the Project.

C.1.6 Solvency and Insurance.

None of the transactions contemplated by this Agreement will be or have been made with an actual intent to hinder, delay, or defraud any present or future creditors of the Recipient or of the Operating JPA. The Recipient and the Operating JPA are solvent and will not be rendered insolvent by the transactions contemplated by this Agreement. The Recipient and the Operating JPA are able to pay their debts as they become due. The Operating JPA maintains sufficient insurance coverage considering the scope of this Agreement, including, for example but not necessarily limited to, general liability, automobile liability, workers compensation and employer liability, professional liability.

C.1.7 Legal Status and Eligibility.

The Recipient and the Operating JPA are duly organized and existing and in good standing under the laws of the State of California. The Recipient and the Operating JPA must at all times maintain their current legal existence and preserve and keep in full force and effect their legal rights and authority. The Recipient and the Operating JPA acknowledge that changes to its legal or financial status may affect its eligibility for funding under this Agreement and commits to maintaining its eligibility. Within the preceding ten years, neither the Recipient or the Operating JPA has failed to demonstrate compliance with state or federal audit disallowances.

C.1.8 Financial Statements and Continuing Disclosure.

The financial statements of the Project Parties previously delivered to the State Water Board as of the date(s) set forth in such financial statements: (a) are materially complete and correct; (b) present fairly the financial condition of the relevant Project Party; and (c) have been prepared in accordance with GAAP. Since the date(s) of such financial statements, there has been no material adverse change in the financial condition of any Project Party, nor have any assets or properties reflected on such financial statements been sold, transferred, assigned, mortgaged, pledged or encumbered, except as previously disclosed in writing by the Recipient or the Operating JPA and approved in writing by the State Water Board.

The Recipient and the Operating JPA are each current in their continuing disclosure obligations associated with their material debt, if any.

C.1.9 Project Bonds and Member Obligations

(a) The Recipient and the Operating JPA have no Project Bonds other than those defined in this Agreement.

(b) To the best knowledge of the Recipient and the Operating JPA, no Member has any Member Obligations other than those defined in this Agreement.

C.1.10 No Other Material Obligations.

(a) The Recipient and the Operating JPA have no Material Obligations other than Project Bonds.

(b) To the best knowledge of the Recipient and the Operating JPA, no Member has any Member Material Obligations other than those defined in this Agreement.

C.1.11 Compliance with State Water Board Funding Agreements.

DRAFT

The Recipient and the Operating JPA represent that they are each in compliance with all State Water Board funding agreements to which they are a party.

C.2 DEFAULTS AND REMEDIES

In addition to any other remedy set forth in this Agreement, the following remedies are available under this Agreement.

C.2.1 Return of Funds; Acceleration; and Additional Payments.

Notwithstanding any other provision of this Agreement, if the Division determines that an Event of Default has occurred, the Recipient may be required, upon demand, immediately to do each of the following:

i. return to the State Water Board any grant or principal forgiveness amounts received pursuant to this Agreement;
ii. accelerate the payment of any principal owed under this Agreement, all of which shall be immediately due and payable;
iii. pay interest at the highest legal rate on all of the foregoing; and
iv. pay any Additional Payments.

C.2.2 [Reserved].

C.2.3 Administrative remedies.

Whenever the State Water Board determines that a Project Party, or a Project Party's contractor, consultant, employee, agent, assignee, or grantee has violated any requirement or term of the Agreement, the State Water Board may impose civil penalties in accordance with Water Code, section 13497. The State Water Board may impose civil liability administratively against the Project Party or the Project Party's consultant or contractor or other agent furnishing any information related to funds disbursed or costs claimed for reimbursement if the Project Party or the Project Party's consultant or contractor or other agent fails to personally attest that the information is true, accurate, and complete the best of one's knowledge. (Wat. Code, § 13498.) The State Water Board may impose civil liability administratively against any person who makes a misrepresentation in any submittal to the State Water Board, including, but not limited to, an application, report, certification, record, invoice, form, or other document that is submitted to the State Water Board relating to a financial assistance agreement. (Wat. Code, § 13499.)

C.2.4 Judicial remedies.

Whenever the State Water Board determines that an Event of Default shall have occurred, the State Water Board may enforce its rights under this Agreement by any judicial proceeding, whether at law or in equity. Without limiting the generality of the foregoing, the State Water Board may:

i. by suit in equity, require the Recipient to account for amounts relating to this Agreement as if the Recipient were the trustee of an express trust;
ii. by mandamus or other proceeding, compel the performance by the Recipient or the Operating JPA and any of their officers, agents, and employees of any duty under the law or of any obligation or covenant under this Agreement, including but not limited to causing the Members to impose and collect rates for the services of the Member Systems sufficient to meet all requirements of this Agreement; and
iii. take whatever action at law or in equity as may appear necessary or desirable to the State Water Board to collect the Payments then due or thereafter to become due, or to enforce performance of any obligation or covenant of the Recipient or Operating JPA under this Agreement.

DRAFT

C.2.5 Termination.

Upon an Event of Default, the State Water Board may terminate this Agreement. Interest shall accrue on all amounts due at the highest legal rate of interest from the date that the State Water Board delivers notice of termination to the Recipient.

C.2.6 Damages for Breach of Tax-Exempt Status.

In the event that any breach of any of the provisions of this Agreement by the Recipient or the Operating JPA results in the loss of tax-exempt status for any bonds of the State or any subdivision or agency thereof, or if such breach results in an obligation on the part of the State or any subdivision or agency thereof to reimburse the federal government by reason of any arbitrage profits, the Recipient must immediately reimburse the State or any subdivision or agency thereof in an amount equal to any damages paid by or loss incurred by the State or any subdivision or agency thereof due to such breach.

C.2.7 Damages for Breach of Federal Conditions.

In the event that any breach of any of the provisions of this Agreement by the Recipient or the Operating JPA results in the failure of Project Funds to be used pursuant to the provisions of this Agreement, or if such breach results in an obligation on the part of the State or any subdivision or agency thereof to reimburse the federal government, the Recipient must immediately reimburse the State or any subdivision or agency thereof in an amount equal to any damages paid by or loss incurred by the State or any subdivision or agency thereof due to such breach.

C.2.8 Remedies and Limitations.

None of the remedies available to the State Water Board shall be exclusive of any other remedy, and each such remedy shall be cumulative and in addition to every other remedy given hereunder or now or hereafter existing at law or in equity. The State Water Board may exercise any remedy, now or hereafter existing, without exhausting and without regard to any other remedy.

Any claim of the Recipient or Operating JPA is limited to the rights and remedies provided to the Recipient under this Agreement and is subject to the claims procedures provided to the Recipient under this Agreement.

C.2.9 Non-Waiver.

Nothing in this Agreement shall affect or impair the Recipient's Obligation to pay Payments as provided herein or shall affect or impair the right of the State Water Board to bring suit to enforce such payment. No delay or omission of the State Water Board in the exercise of any right arising upon an Event of Default shall impair any such right or be construed to be a waiver of any such Event of Default. The State Water Board may exercise from time to time and as often as shall be deemed expedient by the State Water Board, any remedy or right provided by law or pursuant to this Agreement.

C.2.10 Status Quo.

If any action to enforce any right or exercise any remedy shall be brought and either discontinued or determined adversely to the State Water Board, then the State Water Board shall be restored to its former position, rights and remedies as if no such action had been brought.

C.3 STANDARD CONDITIONS

C.3.1 Access, Inspection, and Public Records.

The Recipient and Operating JPA must ensure that the State Water Board, the Governor of the State, the USEPA, the USEPA's Office of Inspector General, any member of Congress, or any authorized representative of the foregoing, will have safe and suitable access to the Project site at all reasonable times during Project construction and thereafter for the term of the Agreement. The Recipient and Operating JPA acknowledge that, except for a subset of information regarding archaeological records, the Project records and locations are public records, including but not limited to all of the submissions accompanying the application, all of the documents incorporated into this Agreement by reference, and all reports, reimbursement requests, and supporting documentation submitted hereunder.

C.3.2 Accounting and Auditing Standards; Financial Management Systems.

(a) The Recipient and Operating JPA must maintain project accounts according to GAAP as issued by the Governmental Accounting Standards Board (GASB) or its successor. The Recipient and Operating JPA must maintain GAAP-compliant project accounts, including GAAP requirements relating to the reporting of infrastructure assets.

(b) The Recipient and Operating JPA must comply with federal standards for financial management systems. The Recipient agrees that, at a minimum, its fiscal control and accounting procedures will be sufficient to permit preparation of reports required by the federal government and tracking of Project funds to a level of expenditure adequate to establish that such funds have not been used in violation of federal or state law or the terms of this Agreement. To the extent applicable, the Recipient and Operating JPA must comply with the provisions and requirements of the federal Single Audit Act (SAA) of 1984, 2 CFR part 200, subpart F, and 2 CFR section 200.302, and updates or revisions thereto, including but not limited to:

- Maintain an annual (Fiscal Year) accounting system and identify all expenditures of federal financial assistance;
- Conduct a SAA audit using an independent auditor in those Fiscal Years when expenditures of total federal financial assistance equal or exceed the applicable threshold in 2 CFR section 200.501, and submit the SAA audit to the Federal Audit Clearinghouse within the earlier of thirty (30) calendar days after receipt of the auditor's report(s) or nine (9) months of the end of the audit period;
- Notify the Division when a SAA audit has been conducted and submitted to the Federal Audit Clearinghouse;
- Notify and provide the Division with a copy of the SAA audit within thirty (30) days of completion of the audit;
- Inform the Division of findings and recommendations pertaining to federal financial assistance provided through the State Water Board contained in SAA audits conducted by the Recipient;
- Initiate corrective actions for audit reports with findings and recommendations that impact federal financial assistance provided through the State Water Board and notify the Division when corrective actions are complete.

(c) Without limitation of the requirement to maintain Project accounts in accordance with GAAP, the Recipient and Operating JPA must:

i. Establish an official file for the Project which adequately documents all significant actions relative to the Project;
ii. Establish separate accounts which will adequately and accurately depict all amounts received and expended on the Project, including all assistance funds received under this Agreement;

DRAFT

iii. Establish separate accounts which will adequately depict all income received which is attributable to the Project, specifically including any income attributable to assistance funds disbursed under this Agreement;
iv. Establish an accounting system which will accurately depict final total costs of the Project, including both direct and Indirect Costs;
v. Establish such accounts and maintain such records as may be necessary for the State to fulfill federal reporting requirements, including any and all reporting requirements under federal tax statutes or regulations; and
vi. If Force Account is used by the Recipient or Operating JPA for any phase of the Project, other than for planning, design, and construction engineering and administration provided for by allowance, accounts will be established which reasonably document all employee hours charged to the Project and the associated tasks performed by each employee. Indirect Costs from Force Account are not eligible for funding.

C.3.3 Amendment.

No amendment or variation of the terms of this Agreement shall be valid unless made in writing and signed by all of the Recipient, the Operating JPA, and the Deputy Director or designee.

Requests for amendments must be in writing and directed to the contact listed in Section 4 and to the Division's Chief of Loans and Grants Administration Section.

C.3.4 Assignability.

This Agreement is not assignable by the Recipient or Operating JPA, either in whole or in part, without the consent of the State Water Board in the form of a formal written amendment to this Agreement.

C.3.5 Audit.

(a) The Division may call for an audit of financial information relative to the Project if the Division determines that an audit is desirable to assure program integrity or if an audit becomes necessary because of state or federal requirements. If an audit is called for, the audit must be performed by a certified public accountant independent of the Recipient or Operating JPA and at the cost of the Recipient. The audit must be in the form required by the Division.

(b) Audit disallowances must be returned to the State Water Board.

C.3.6 Bonding.

Where contractors are used, the Operating JPA must not authorize construction to begin until each contractor has furnished a performance bond in favor of the Recipient in the following amounts: faithful performance (100%) of contract value; labor and materials (100%) of contract value. This requirement shall not apply to any contract for less than $25,000.00.

C.3.7 Competitive Bidding

Recipient and Operating JPA must adhere to any applicable state law or local ordinance for competitive bidding and applicable labor laws.

C.3.8 Compliance with Applicable Laws, Rules, and Requirements.

DRAFT

The Recipient and Operating JPA must, at all times, comply with and require its contractors and subcontractors to comply with all applicable federal and state laws, rules, guidelines, regulations, and requirements. Without limitation of the foregoing, to the extent applicable, the Recipient and Operating JPA must:

(a) Comply with the provisions of the adopted environmental mitigation plan, if any, for the term of this Agreement;

(b) Comply with the Policy and Guidelines; and

(c) Comply with and require compliance with the state and federal requirements set forth elsewhere in this Agreement.

C.3.9 Computer Software.

The Recipient and Operating JPA certify that they have appropriate systems and controls in place to ensure that state funds will not be used in the performance of this Agreement for the acquisition, operation or maintenance of computer software in violation of copyright laws.

C.3.10 Conflict of Interest.

The Recipient and Operating JPA certify that their owners, officers, directors, agents, representatives, and employees are in compliance with applicable state and federal conflict of interest laws.

C.3.11 Continuous Use of Project; No Lease, Sale, Transfer of Ownership, or Disposal of Project.

The Recipient and Operating JPA agree that, except as provided in this Agreement, they will not abandon, substantially discontinue use of, lease, sell, transfer ownership of, or dispose of all or a significant part or portion of the Project during the Useful Life of the Project without prior written approval of the Division. Such approval may be conditioned as determined to be appropriate by the Division, including a condition requiring repayment of all disbursed Project Funds or all or any portion of all remaining funds covered by this Agreement together with accrued interest and any penalty assessments that may be due.

C.3.12 Data Management.

The Recipient and Operating JPA will undertake appropriate data management activities so that Project data can be incorporated into statewide data systems.

C.3.13 Disputes.

(a) The Recipient or Operating JPA may appeal a staff decision within 30 days to the Deputy Director of the Division or designee, for a final Division decision. The Recipient or Operating JPA may appeal a final Division decision to the State Water Board within 30 days. The Office of the Chief Counsel of the State Water Board will prepare a summary of the dispute and make recommendations relative to its final resolution, which will be provided to the State Water Board's Executive Director and each State Water Board Member. Upon the motion of any State Water Board Member, the State Water Board will review and resolve the dispute in the manner determined by the State Water Board. Should the State Water Board determine not to review the final Division decision, this decision will represent a final agency action on the dispute.

DRAFT

(b) This clause does not preclude consideration of legal questions, provided that nothing herein shall be construed to make final the decision of the State Water Board, or any official or representative thereof, on any question of law.

(c) Recipient and Operating JPA must continue with the responsibilities under this Agreement during any dispute.

(d) This section relating to disputes does not establish an exclusive procedure for resolving claims within the meaning of Government Code sections 930 and 930.4.

C.3.14 Drug-Free Workplace.

The Recipient certifies that it will provide a drug-free workplace in compliance with the Drug-Free Workplace Act (Gov. Code. §§ 8350-8357). The Recipient shall publish a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the Recipient's workplace and specifying the actions to be taken against employees for violations of the prohibition. The Recipient shall establish a drug-free awareness program to inform employees about the dangers of drug abuse in the workplace, the Recipient's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation and employee assistance programs, and penalties that may be imposed upon employees for drug abuse violations. The Recipient shall provide that every employee who works on the Project receives a copy of the Recipient's drug-free workplace policy statement and agrees to abide by the terms of the statement as a condition of employment on the Project.

C.3.15 Environmental Clearance.

(a) No work that is subject to CEQA or NEPA may proceed under this Agreement unless the State Water Board has provided environmental clearance. The State Water Board may require changes in the scope of work or additional mitigation as a condition to providing construction or implementation funding under this Agreement. Recipient or Operating JPA shall not perform any work subject to CEQA and/or NEPA before the State Water Board completes its environmental review and specifies any changes in scope or additional mitigation that may be required. Proceeding with work subject to CEQA and/or NEPA without approval by the State Water Board shall constitute a breach of a material provision of this Agreement.

(b) If this Project includes modification of a river or stream channel, the Recipient and Operating JPA must fully mitigate environmental impacts resulting from the modification. The Recipient or Operating JPA must provide documentation that the environmental impacts resulting from such modification will be fully mitigated considering all of the impacts of the modification and any mitigation, environmental enhancement, and environmental benefit resulting from the Project, and whether, on balance, any environmental enhancement or benefit equals or exceeds any negative environmental impacts of the Project.

C.3.16 Governing Law.

This Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.

C.3.17 Income Restrictions.

The Recipient and Operating JPA agree that any refunds, rebates, credits, or other amounts (including any interest thereon) accruing to or received by the Recipient or Operating JPA under this Agreement must be paid by the Recipient to the State Water Board, to the extent that they are properly allocable to costs for which the Recipient has been reimbursed by the State Water Board under this Agreement.

DRAFT

C.3.18 Indemnification and State Reviews.

The parties agree that review or approval of Project plans and specifications by the State Water Board is for administrative purposes only, including conformity with application and eligibility criteria, and expressly not for the purposes of design defect review or construction feasibility, and does not relieve the Recipient and Operating JPA of its responsibility to properly plan, design, construct, operate, and maintain the Project. To the extent permitted by law, the Recipient and Operating JPA agree to indemnify, defend, and hold harmless the State Water Board, the Bank, and any trustee, and their officers, employees, and agents for the Bonds, if any (collectively, "Indemnified Persons"), against any loss or liability arising out of any claim or action brought against any Indemnified Persons from and against any and all losses, claims, damages, liabilities, or expenses, of every conceivable kind, character, and nature whatsoever arising out of, resulting from, or in any way connected with (1) the Joint System, any Member System or the Project or the conditions, occupancy, use, possession, conduct, or management of, work done in or about, or the planning, design, acquisition, installation, or construction, of the Joint System, any Member System or the Project or any part thereof; (2) the carrying out of any of the transactions contemplated by this Agreement or any related document; (3) any violation of any applicable law, rule or regulation, any environmental law (including, without limitation, the Federal Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, the California Hazardous Substance Account Act, the Federal Water Pollution Control Act, the Clean Air Act, the Toxic Substances Control Act, the Occupational Safety and Health Act, the Safe Drinking Water Act, the California Hazardous Waste Control Law, and California Water Code Section 13304, and any successors to said laws), rule or regulation or the release of any toxic substance on or near the Joint System, any Member System or the Project; or (4) any untrue statement or alleged untrue statement of any material fact or omission or alleged omission to state a material fact necessary to make the statements required to be stated therein, in light of the circumstances under which they were made, not misleading with respect to any information provided by any Project Party for use in any disclosure document utilized in connection with any of the transactions contemplated by this Agreement, except those arising from the gross negligence or willful misconduct of the Indemnified Persons. The Recipient and Operating JPA must also provide for the defense and indemnification of the Indemnified Persons in any contractual provision extending indemnity to the Recipient or Operating JPA in any contract let for the performance of any work under this Agreement, and must cause the Indemnified Persons to be included within the scope of any provision for the indemnification and defense of the Recipient or Operating JPA in any contract or subcontract. To the fullest extent permitted by law, the Recipient and Operating JPA agree to pay and discharge any judgment or award entered or made against Indemnified Persons with respect to any such claim or action, and any settlement, compromise or other voluntary resolution. The provisions of this section survive the term of this Agreement.

C.3.19 Independent Actor.

The Recipient and Operating JPA, and the agents and employees thereof, if any, in the performance of this Agreement, shall act in an independent capacity and not as officers, employees, or agents of the State Water Board.

C.3.20 Integration.

This Agreement constitutes the complete and final agreement between the parties. No oral or written understanding or agreement not incorporated in this Agreement shall be binding on any party.

C.3.21 Leveraging Covenants.

(a) Notwithstanding any other provision hereof, the Recipient and Operating JPA covenant and agree that they will comply with the Tax Covenants set forth in Exhibit F of this Agreement.

DRAFT

(b) The Recipient and Operating JPA covenant to furnish such financial, operating and other data pertaining to the Recipient or Operating JPA as may be requested by the State Water Board to: (i) enable the State Water Board to cause the issuance of Bonds and provide for security therefor; or (ii) enable any underwriter of Bonds issued for the benefit of the State Water Board to comply with Rule 15c2-12(b)(5).

(c) The Recipient and Operating JPA further covenant to provide, and to cause the Members to provide, the State Water Board with copies of all continuing disclosure documents or reports that are disclosed pursuant to (i) the Recipient's continuing disclosure undertaking or undertakings made in connection with any outstanding Project Bonds or Member Obligations, (ii) the terms of any outstanding Project Bonds or Member Obligations, or (iii) a voluntary disclosure of information related to an outstanding Project Bond or Member Obligation. The Recipient or Operating JPA must disclose such documents or reports to the State Water Board at the same time such documents or reports are submitted to any dissemination agent, trustee, nationally recognized municipal securities information repository, the Municipal Securities Rulemaking Board's Electronic Municipal Market Access (EMMA) website or other person or entity.

C.3.22 No Discrimination.

(a) The Recipient and Operating JPA must comply with Government Code section 11135 and the implementing regulations (Cal. Code Regs, tit. 2, § 14000 et seq.), including, but not limited to, ensuring that no person is unlawfully denied full and equal access to the benefits of, or unlawfully subjected to discrimination in the operation of, the Project or Joint System on the basis of sex, race, color, religion, ancestry, national origin, ethnic group identification, age, mental disability, physical disability, medical condition, genetic information, marital status, or sexual orientation as such terms are defined under California law, for as long as the Recipient retains ownership or possession of the Project.

(b) If Project Funds are used to acquire or improve real property, the Recipient or Operating JPA must include a covenant of nondiscrimination running with the land in the instrument effecting or recording the transfer of such real property.

(c) The Recipient and Operating JPA must comply with the federal American with Disabilities Act of 1990 and implementing regulations as required by Government Code section 11135(b).

(d) The Recipient and Operating JPA's obligations under this section shall survive the term of this Agreement.

(e) During the performance of this Agreement, Recipient and Operating JPA and their contractors and subcontractors must not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, sexual orientation, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, denial of family care leave, or genetic information, gender, gender identity, gender expression, or military and veteran status.

(f) The Recipient, the Operating JPA, their contractors, and subcontractors must ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.

(g) The Recipient, the Operating JPA, their contractors, and subcontractors must comply with the provisions of the Fair Employment and Housing Act and the applicable regulations promulgated thereunder. (Gov. Code, §12990, subds. (a)-(f) et seq.;Cal. Code Regs., tit. 2, § 7285 et seq.) Such regulations are incorporated into this Agreement by reference and made a part hereof as if set forth in full.

DRAFT

(h) The Recipient, the Operating JPA, their contractors, and subcontractors must comply with all applicable federal civil rights regulations, including statutory and national policy requirements. (2 CFR § 200.300).

(i) The Recipient, the Operating JPA, their contractors, and subcontractors must give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

(j) The Recipient and the Operating JPA must include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under this Agreement.

C.3.23 No Third Party Rights.

The parties to this Agreement do not create rights in, or grant remedies to, any third party as a beneficiary of this Agreement, or of any duty, covenant, obligation, or undertaking established herein.

C.3.24 No Obligation of the State.

Any obligation of the State Water Board herein contained shall not be an obligation, debt, or liability of the State and any such obligation shall be payable solely out of the moneys encumbered pursuant to this Agreement.

C.3.25 Notice.

Upon the occurrence of any of the following events, the Recipient or Operating JPA must provide notice as set forth below.

(a) Within 24 hours of the following, the Recipient or Operating JPA must notify the Division by phone at (916) 327-9978 and by email to [PM email address and senior email address] and CleanWaterSRF@waterboards.ca.gov of:

i. The seizure of, or levy on, any Revenues securing this Agreement or any Member Revenues securing a Payment Agreement;

ii. Any discovery of any potential tribal cultural resource, archaeological or historical resource, or human remains in the Project area (also notify the Division's Senior Cultural Resources Officer, at (CulturalResources@waterboards.ca.gov). Should a potential tribal cultural resource or archaeological or historical resource be discovered during construction or Project implementation, the Operating JPA must ensure that all work in the area of the find will cease until a qualified archaeologist has evaluated the situation and made recommendations regarding preservation of the resource, and the Division has determined what actions should be taken to protect and preserve the resource. The Operating JPA must implement appropriate actions as directed by the Division. If there are any applicable provisions of a mitigation, monitoring and reporting program adopted for the Project, the Operating JPA shall comply with such provisions. In the event of the discovery of human remains during construction of the Project, the Operating JPA shall cease construction and take other action required by any applicable laws, which may include but are not limited to Health and Safety Code, section 7050.5 and Public Resources Code, section 5097.98..

(b) [reserved]

DRAFT

(c) Within five (5) business days, the Recipient or Operating JPA must notify the Division by phone at (916) 327-9978; by email to Lance.Reese@waterboards.ca.gov [PM email address and senior email address] and CleanWaterSRF@waterboards.ca.gov and by mail to the contact address set forth in Section 4 of this Agreement of the occurrence of any of the following events:

i. Bankruptcy, insolvency, receivership or similar event of the Recipient, the Operating JPA, or of any Member, or actions taken in anticipation of any of the foregoing;
ii. Change of ownership of the Project or the Joint System or change of management or service contracts, if any, for operation of the Joint System;
iii. Loss, theft, damage, or impairment to Project, the Revenues, the Joint System, any Member Revenues or any Member System;
iv. Failure to meet any debt service coverage test in Exhibit B or Exhibit D of this Agreement;
v. Draws on the Reserve Fund;
vi. Listed Events and Events of Default, except as otherwise set forth in this section;
vii. Failure to observe or perform any covenant or comply with any condition in this Agreement;
viii. An offer from a public entity to purchase the Project, the Joint System, or any Member System or any portion thereof, or any of the real or personal property related to or necessary for the Project;
ix. A proceeding or action by a public entity to acquire the Project, the Joint System, or any Member System by power of eminent domain;
x. Incurrence of a Project Bond or other Material Obligation by the Recipient, or of a Member Obligation by any Member; or
xi. A default, event of acceleration, termination event, modification of terms, or other similar event under the terms of a Project Bond or other Material Obligation of the Recipient or of a Member Obligation of any Member, any of which reflect financial difficulties.

(d) Within ten (10) business days, the Recipient or Operating JPA must notify the Division by phone at (916) 327-9978, by email to [PM email address and senior email address] and CleanWaterSRF@waterboards.ca.gov DrinkingWaterSRF@waterboards.ca.gov, and by mail to the contact address set forth in Section 4 of this Agreement of the following events:

i. Material defaults on Material Obligations or Member Material Obligations, other than this Obligation;
ii. Unscheduled draws by any Project Party on material debt service reserves or credit enhancements, reflecting financial difficulties;
iii. Substitution of credit or liquidity providers, if any or their failure to perform;
iv. Any litigation pending or threatened with respect to the Project, the Operating JPA's technical, managerial or financial capacity to operate the Joint System, any Member's technical, managerial or financial capacity to operate any Member System the continued existence of any Project Party, or any judgment or court order relating to such litigation that has a significant effect on the Project, the Joint System, or any Member System;
v. Circulation of a petition to repeal, reduce, or otherwise challenge any Member's rates for services of any Member System;
vi. Consideration of dissolution, or disincorporation, or any other event that could materially impair the Revenues or any Member Revenues;
vii. Adverse tax opinions, the issuance by the Internal Revenue Service or proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-

TEB) or other material notices of determinations with respect to the tax status of any tax-exempt bonds of any Project Party;

viii. Rating changes on outstanding Project Bonds or Member Obligations, if any;

ix. Enforcement actions by or brought on behalf of the State Water Board or Regional Water Board against any Project Party; or

x. Any investigation by the District Attorney, California State Auditor, Bureau of State Audits, USEPA's Office of Inspector General, the Internal Revenue Service, Securities and Exchange Commission, a grand jury, or any other state or federal agency, relating to the financial management, accounting procedures, or internal fiscal controls of any Project Party;

(e) The Recipient or Operating JPA must notify the Division promptly by phone at (916) 327-9978, by email to [PM email address and senior email address] and CleanWaterSRF@waterboards.ca.gov, and by mail to the contact address set forth in Section 4 of this Agreement of any of the following events:

i. The discovery of a false statement of fact or representation made in this Agreement or in the application to the Division for this financial assistance, or in any certification, report, or request for reimbursement made pursuant to this Agreement, by any Project Party or its employees, agents, or contractors;

ii. Any substantial change in scope of the Project. The Recipient and Operating JPA must not undertake any substantial change in the scope of the Project until prompt written notice of the proposed change has been provided to the Division and the Division has given written approval for the change;

iii. Cessation of all major construction work on the Project where such cessation of work is expected to or does extend for a period of thirty (30) days or more;

iv. Any circumstance, combination of circumstances, or condition, which is expected to or does delay Completion of Construction for a period of ninety (90) days or more;

v. Any disputes related to the Project that may affect the Recipient or Operating JPA's ability to comply with the terms of this Agreement;

vi. Discovery of any unexpected endangered or threatened species, as defined in the federal Endangered Species Act. Should a federally protected species be unexpectedly encountered during construction of the Project, the Operating JPA agrees to promptly notify the Division. This notification is in addition to the Recipient and Operating JPA's obligations under the federal Endangered Species Act;

vii. Any Project monitoring, demonstration, or other implementation activities required in Exhibit A or Exhibit D of this Agreement, if any;

viii. Any public or media event publicizing the accomplishments and/or results of this Agreement and provide the opportunity for attendance and participation by state and federal representatives with at least ten (10) working days' notice to the Division;

ix. Any allegation of research misconduct involving research activities that are supported in whole or in part with USEPA funds under this Project, as required by Exhibit C.4.3(xxvii);

x. Any events requiring notice to the Division pursuant to the provisions of this Agreement;

xi. Completion of Construction of the Project, and actual Project Completion;

xii. The award of the prime construction contract for the Project;

xiii. Initiation of construction of the Project; or

xiv. Consideration of any amendment to the Payment Agreement, Operating JPA Agreement, or PFA Agreement which may have a material impact on the ability

DRAFT

of any Project Party to meet any obligation or perform any covenant under this Agreement or any Payment Agreement.

C.3.26 Operation and Maintenance; Insurance.

The Operating JPA agrees to sufficiently and properly staff, operate and maintain all portions of the Joint System during the Useful Life of the Project in accordance with all applicable state and federal laws, rules, and regulations.

The Operating JPA will procure and maintain or cause to be maintained insurance on the Joint System with responsible insurers, or as part of a reasonable system of self-insurance, in such amounts and against such risks (including damage to or destruction of the Joint System) as are usually covered in connection with systems similar to the Joint System. Such insurance may be maintained by a self-insurance plan so long as such plan provides for (i) the establishment by the Recipient of a separate segregated self-insurance fund in an amount determined (initially and on at least an annual basis) by an independent insurance consultant experienced in the field of risk management employing accepted actuarial techniques and (ii) the establishment and maintenance of a claims processing and risk management program.

In the event of any damage to or destruction of the Joint System caused by the perils covered by such insurance, the net proceeds thereof shall be applied to the reconstruction, repair or replacement of the damaged or destroyed portion of the Joint System. The Operating JPA must begin such reconstruction, repair or replacement as expeditiously as possible, and must pay out of such net proceeds all costs and expenses in connection with such reconstruction, repair or replacement so that the same must be completed and the Joint System must be free and clear of all claims and liens. If such net proceeds are insufficient to reconstruct, repair, or restore the Joint System to the extent necessary to enable the Operating JPA to pay all remaining unpaid principal portions of the Payments, if any, in accordance with the terms of this Agreement, the Operating JPA must provide additional funds to restore or replace the damaged portions of the Joint System.

Operating JPA agrees that for any policy of insurance concerning or covering the construction of the Project, it will cause, and will require its contractors and subcontractors to cause, a certificate of insurance to be issued showing the State Water Board, its officers, agents, employees, and servants as additional insured; and must provide the Division with a copy of all such certificates prior to the commencement of construction of the Project.

C.3.27 Permits, Subcontracting, and Remedies.

Operating JPA must procure all permits, licenses and other authorizations necessary to accomplish the work contemplated in this Agreement, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work. Signed copies of any such permits or licenses must be submitted to the Division before any construction begins.

The Operating JPA must not contract or allow subcontracting with excluded parties. The Operating JPA must not contract with any party who is debarred or suspended or otherwise excluded from or ineligible for participation in any work overseen, directed, funded, or administered by the State Water Board program for which this funding is authorized. For any work related to this Agreement, the Operating JPA must not contract with any individual or organization on the State Water Board's List of Disqualified Businesses and Persons that is identified as debarred or suspended or otherwise excluded from or ineligible for participation in any work overseen, directed, funded, or administered by the State Water Board program for which funding under this Agreement is authorized. The State Water Board's List of Disqualified Businesses and Persons is located at http://www.waterboards.ca.gov/water_issues/programs/enforcement/fwa/dbp.shtml

DRAFT

C.3.28 Professionals.

The Recipient and Operating JPA agree that only licensed professionals will be used to perform services under this Agreement where such services are called for. All technical reports required pursuant to this Agreement that involve planning, investigation, evaluation, design, or other work requiring interpretation and proper application of engineering, architectural, or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to Business and Professions Code, sections 5536.1, 6735, 7835, and 7835.1. To demonstrate compliance with California Code of Regulations, title 16, sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

C.3.29 Prevailing Wages.

The Operating JPA agrees to be bound by all applicable provisions of State Labor Code regarding prevailing wages. The Operating JPA must monitor all agreements subject to reimbursement from this Agreement to ensure that the prevailing wage provisions of the State Labor Code are being met.

In addition, the Operating JPA agrees to comply with the Davis-Bacon provisions incorporated by reference in Section 3 of this Agreement.

C.3.30 Public Funding.

This Project is publicly funded. Any service provider or contractor with which the Recipient or Operating JPA contracts must not have any role or relationship with the Recipient or Operating JPA, that, in effect, substantially limits the Operating JPA's ability to exercise its rights, including cancellation rights, under the contract, based on all the facts and circumstances.

C.3.31 Recipient and Operating JPA's Responsibility for Work.

The Recipient and Operating JPA shall be responsible for all work and for persons or entities engaged in work performed pursuant to this Agreement, including, but not limited to, contractors, subcontractors, suppliers, and providers of services. The Recipient and Operating JPA shall be responsible for responding to any and all disputes arising out of its contracts for work on the Project. The State Water Board will not mediate disputes between the Recipient or Operating JPA and any other entity concerning responsibility for performance of work.

C.3.32 Records Retention.

The Recipient and Operating JPA must maintain separate books, records and other material relative to the Project, including compliance documentation. The Operating JPA must also retain such books, records, and other material for itself and for each contractor or subcontractor who performed or performs work on this project for a minimum of thirty-six (36) years after Completion of Construction. The Recipient and Operating JPA must require that such books, records, and other material are subject at all reasonable times (at a minimum during normal business hours) to inspection, copying, and audit by the State Water Board, the California State Auditor, the Bureau of State Audits, the USEPA, the USEPA's Office of Inspector General, the Internal Revenue Service, the Governor, or any authorized representatives of the aforementioned. The Recipient and Operating JPA must allow and must require their contractors to allow interviews during normal business hours of any employees who might reasonably have information related to such records. The Recipient and Operating JPA agree to include

DRAFT

a similar duty regarding audit, interviews, and records retention in any contract or subcontract related to the performance of this Agreement. The provisions of this section survive the term of this Agreement.

C.3.33 Related Litigation.

Under no circumstances may the Recipient or Operating JPA use funds from any reimbursement under this Agreement to pay costs associated with any litigation the Recipient or Operating JPA pursues against the State Water Board or any Regional Water Quality Control Board. Regardless of the outcome of any such litigation, and notwithstanding any conflicting language in this Agreement, the Recipient agrees to repay all of the disbursed funds plus interest in the event that Recipient does not complete the project.

C.3.34 Rights in Data.

The Recipient and Operating JPA agree that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes, and other written or graphic work produced in the performance of this Agreement are subject to the rights of the State as set forth in this section. The State shall have the right to reproduce, publish, and use all such work, or any part thereof, in any manner and for any purposes whatsoever and to authorize others to do so. If any such work is copyrightable, the Recipient or Operating JPA may copyright the same, except that, as to any work which is copyrighted by the Recipient or Operating JPA, the State reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish, and use such work, or any part thereof, and to authorize others to do so, and to receive electronic copies from the Recipient or Operating JPA upon request.

C.3.35 State Water Board Action; Costs and Attorney Fees.

Any remedy provided in this Agreement is in addition to and not in derogation of any other legal or equitable remedy available to the State Water Board as a result of breach of this Agreement by the Recipient or the Operating JPA, whether such breach occurs before or after completion of the Project, and exercise of any remedy provided by this Agreement by the State Water Board shall not preclude the State Water Board from pursuing any legal remedy or right which would otherwise be available. In the event of litigation between the parties hereto arising from this Agreement, it is agreed that each party shall bear its own costs and attorney fees.

C.3.36 Timeliness.

Time is of the essence in this Agreement.

C.3.37 Unenforceable Provision.

In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.

C.3.38 Venue.

Any action arising out of this Agreement shall be filed and maintained in the Superior Court in and for the County of Sacramento, California.

C.3.39 Waiver and Rights of the State Water Board.

Any waiver of rights by the State Water Board with respect to a default or other matter arising under this Agreement at any time shall not be considered a waiver of rights with respect to any other default or

DRAFT

matter. Any rights and remedies of the State Water Board provided for in this Agreement are in addition to any other rights and remedies provided by law.

C.4 MISCELLANEOUS STATE AND FEDERAL REQUIREMENTS

C.4.1 [Reserved]

C.4.2 State Cross-Cutters.

Recipient and Operating JPA represent that, as applicable, they comply and covenant to maintain compliance with the following with respect to all Project Costs for the term of this Agreement:

i. The California Environmental Quality Act (CEQA), as set forth in Public Resources Code 21000 et seq. and in the CEQA Guidelines at Title 14, Division 6, Chapter 3, Section 15000 et seq.

ii. Water Conservation requirements, including regulations in Division 3 of Title 23 of the California Code of Regulations.

iii. Monthly Water Diversion Reporting requirements, including requirements set forth in Water Code section 5103.

iv. Public Works Contractor Registration with Department of Industrial Relations requirements, including requirements set forth in Sections 1725.5 and 1771.1 of the Labor Code.

v. Volumetric Pricing & Water Meters requirements, including the requirements of Water Code sections 526 and 527.

vi. Urban Water Management Plan requirements, including the Urban Water Management Planning Act (Water Code, § 10610 et seq.).

vii. Urban Water Demand Management requirements, including the requirements of Section 10608.56 of the Water Code.

viii. Delta Plan Consistency Findings requirements, including the requirements of Water Code section 85225 and California Code of Regulations, title 23, section 5002.

ix. Agricultural Water Management Plan Consistency requirements, including the requirements of Water Code section 10852.

x. Charter City Project Labor Requirements, including the requirements of Labor Code section 1782 and Public Contract Code section 2503.

xi. The Recipient agrees that it will, at all times, comply with and require its contractors and subcontractors to comply with directives or orders issued pursuant to Division 7 of the Water Code.

xii. Regulations in Division 4 of Title 22 of the California Code of Regulations, including but not limited to California Waterworks Standards in Chapter 16, and Lead and Copper regulations in Chapter 17.5.

C.4.3 Federal Requirements and Cross-Cutters for SRF Funding.

DRAFT

The Recipient and Operating JPA acknowledge, warrant compliance with, and covenant to continuing compliance with the following federal terms and conditions with respect to all Project Costs for the term of this Agreement and for the Useful Life of the Project:

i. Unless the Recipient or Operating JPA has obtained a waiver from USEPA on file with the State Water Board or unless this Project is not a project for the construction, alteration, maintenance or repair of a public water system or treatment work, the Recipient and Operating JPA shall not purchase “iron and steel products” produced outside of the United States on this Project. Unless the Recipient or Operating JPA has obtained a waiver from USEPA on file with the State Water Board or unless this Project is not a project for the construction, alteration, maintenance or repair of a public water system or treatment work, the Recipient and Operating JPA hereby certify that all “iron and steel products” used in the Project were or will be produced in the United States. For purposes of this section, the term "iron and steel products" means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials. “Steel” means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

ii. The Recipient and Operating JPA acknowledge that funds received under this Agreement are subject to the Build America Buy America (BABA) requirements of Public Law 117-58 (the Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (BIL), signed into law on November 15, 2021), which are in addition to “iron and steel products” requirements described in section C.4.3 (i) above. Specifically, unless (1) the Recipient or Operating JPA has requested and obtained a waiver from USEPA on file with the State Water Board pertaining to the Project or the Project is otherwise covered by a general applicability waiver, as confirmed in writing by the State Water Board; or (2) the State Water Board and, to the extent the Project is co-funded by any other agency using federal funds subject to BABA requirements, each such agency, has advised the Recipient or Operating JPA in writing that the BABA requirements are not applicable to the Project, the Recipient and Operating JPA shall ensure and certify that, as these terms are defined within and made applicable by Public Law 117-58:

(a) all iron and steel used in the Project are produced in the United States;
(b) the manufactured products used in the Project are produced in the United States; and
(c) the construction materials used in the Project are produced in the United States.

The Recipient and Operating JPA must comply and require its contractors and subcontractors to comply with all applicable BABA requirements and reporting and must inform the State Water Board immediately of any information regarding a violation of the foregoing.

iii. The Recipient and Operating JPA must include in full the Wage Rate Requirements (Davis-Bacon) language incorporated by reference in Section 3 of this Agreement in all construction contracts and subcontracts.

iv. The Recipient and Operating JPA must comply with the signage requirements set forth in Exhibit A.

v. The Recipient or Operating JPA shall notify the State Water Board and the USEPA contact of public or media events publicizing the accomplishment of significant events related to this Project and provide the opportunity for attendance and participation by federal representatives with at least ten (10) working days’ notice.

DRAFT

vi. The Recipient and Operating JPA shall comply with applicable USEPA general terms and conditions found at: https://www.epa.gov/grants/epa-general-terms-and-conditions-effective-october-1-2024-or-later .

vii. The Recipient may not receive funding under this Agreement unless it has provided its Unique Entity Identifier, assigned by the System for Award Management, to the State Water Board.

viii. The Recipient and the Operating JPA represent and warrant that they and their principals are not excluded or disqualified from participating in this transaction as such terms are defined in Parts 180 and 1532 of Title 2 of the Code of Federal Regulations (2 CFR). If the Recipient or Operating JPA is excluded after execution of this Agreement, the Recipient or Operating JPA shall notify the Division within ten (10) days and shall inform the Division of the Recipient's or Operating JPA's exclusion in any request for amendment of this Agreement. The Recipient and Operating JPA shall comply with Subpart C of Part 180 of 2 CFR, as supplemented by Subpart C of Part 1532 of 2 CFR. Such compliance is a condition precedent to the State Water Board's performance of its obligations under this Agreement. When entering into a covered transaction as defined in Parts 180 and 1532 of 2 CFR, the Recipient or Operating JPA shall require the other party to the covered transaction to comply with Subpart C of Part 180 of 2 CFR, as supplemented by Subpart C of Part 1532 of 2 CFR.

ix. To the extent applicable, the Recipient and Operating JPA shall disclose to the State Water Board any potential conflict of interest consistent with USEPA's Final Financial Assistance Conflict of Interest Policy at https://www.epa.gov/grants/epas-final-financial-assistance-conflict-interest-policy. A conflict of interest may result in disallowance of costs.

x. USEPA and the State Water Board have the right to reproduce, publish, use and authorize others to reproduce, publish and use copyrighted works or other data developed under this assistance agreement. This includes the right to require the Recipient and Operating JPA to make such works available through agency-designated public access repositories.

xi. Where an invention is made with Project Funds, USEPA and the State Water Board retain the right to a worldwide, nonexclusive, nontransferable, irrevocable, paid-up license to practice the invention owned by the Recipient or the Operating JPA. The Recipient or Operating JPA must utilize the Interagency Edison extramural invention reporting system at https://www.nist.gov/iedison and shall notify the Division when an invention report, patent report, or utilization report is filed.

xii. The Recipient and Operating JPA agree that any reports, documents, publications or other materials developed for public distribution supported by this Agreement shall contain the Disclosure statement set forth in Exhibit A.

xiii. The Recipient and Operating JPA acknowledge that they are encouraged to follow guidelines established under Section 508 of the Rehabilitation Act, codified at 36 CFR Part 1194, with respect to enabling individuals with disabilities to participate in its programs supported by this Project.

xiv. The Recipient and the Operating JPA, and the employees, contractors and subcontractors of each and their employees warrant that it will not engage in severe forms of trafficking in persons, procure a commercial sex act during the term of this Agreement, use forced labor in the performance of this Agreement, or engage in acts that directly support or advance trafficking in persons, including (i) destroying, concealing, removing, confiscating, or otherwise denying an employee access to that employee's identity or immigration documents; (ii) failing to provide return transportation or pay for return transportation costs to an employee from a country outside the United States to the country from which the employee was recruited upon the end of

DRAFT

employment if request by the employee, unless exempted from the requirement to provide or pay for such return transportation by the Federal department or agency providing or entering into the grant or cooperative agreements or the employee is a victim of human trafficking seeking victim services or legal redress in the country of employment or a witness in a human trafficking enforcement action; (iii) soliciting a person for the purpose of employment, or offering employment, by means of materially false or fraudulent pretenses, representations, or promises regarding that employment; (iv) charging recruited employees a placement or recruitment fee; or (v) providing or arranging housing that fails to meet the host country's housing and safety standards. The Recipient and Operating JPA must include this provision in their contracts and subcontracts under this Agreement. The Recipient or Operating JPA must inform the State Water Board immediately of any information regarding a violation of the foregoing. The Recipient and Operating JPA understand that failure to comply with this provision may subject the State Water Board to loss of federal funds. The Recipient and Operating JPA agree to compensate the State Water Board for any such funds lost due to its failure to comply with this condition, or the failure of its contractors or subcontractors to comply with this condition. The State Water Board may unilaterally terminate this Agreement if the Recipient that is a private entity is determined to have violated the foregoing.

xv. The Recipient and Operating JPA certify to the best of their knowledge and belief that:

a. No federal appropriated funds have been paid or will be paid, by or on behalf of the Recipient or the Operating JPA, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
b. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with this Agreement, the Recipient or Operating JPA shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions, and notify the State Water Board.

The Recipient and Operating JPA shall require this certification from all parties to any contract or agreement that the Recipient or Operating JPA enters into and under which the Recipient or Operating JPA incurs costs for which it seeks reimbursements under this Agreement.

xvi. The Recipient and Operating JPA must comply with the following federal non-discrimination requirements:

a. Title VI of the Civil Rights Act of 1964, which prohibits discrimination based on race, color, and national origin, including limited English proficiency (LEP).
b. Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination against persons with disabilities.
c. The Age Discrimination Act of 1975, which prohibits age discrimination.
d. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, which prohibits discrimination on the basis of sex.
e. 40 CFR Part 7, as it relates to the foregoing.

xvii. If the Project relates to construction of a publicly owned treatment works, where the Recipient or Operating JPA contracts for program management, construction management, feasibility studies, preliminary engineering, design, engineering, surveying, mapping, or architectural related services, the Recipient or Operating JPA shall ensure that any such contract is negotiated in the same manner as a contract for architectural and engineering services is negotiated under chapter

11 of title 40, United States Code, or an equivalent State qualifications-based requirement as determined by the State Water Board.

xviii. If the Project relates to construction of a publicly owned treatment works, the Recipient and Operating JPA certify that they have developed and are implementing a fiscal sustainability plan for the Project, except as set forth in Exhibit D, that includes an inventory of critical assets that are a part of the Project, an evaluation of the condition and performance of inventoried assets or asset groupings, a certification that the Recipient or Operating JPA has evaluated and will be implementing water and energy conservation efforts as part of the plan, and a plan for maintaining, repairing, and, as necessary, replacing the Project and a plan for funding such activities.

xix.

xx. Procurement Prohibitions under Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, including Executive Order 11738, Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans; 42 USC § 7606; 33 USC § 1368. Except where the purpose of this Agreement is to remedy the cause of the violation, the Recipient and Operating JPA may not procure goods, services, or materials from suppliers excluded under the federal System for Award Management: sam.gov

xxi. Uniform Relocation and Real Property Acquisition Policies Act, Pub. L. 91-646, as amended; 42 USC §§4601-4655. The Recipient and Operating JPA must comply with the Act's implementing regulations at 49 CFR 24.101 through 24.105.

xxii. The Recipient and Operating JPA agree that if their network or information system is connected to USEPA networks to transfer data using systems other than the Environmental Information Exchange Network or USEPA's Central Data Exchange, they will ensure that any connections are secure. For purposes of this subsection, a connection is defined as a dedicated persistent interface between a USEPA information technology system and an external information technology system for the purpose of transferring information. Transitory, user-controlled connections such as website browsing are excluded from this definition. If the Recipient's or Operating JPA's connections as defined above do not go through the Environmental Information Exchange Network or USEPA's Central Data Exchange, the Recipient and Operating JPA agree to contact the USEPA Project Officer and work with the designated Regional/Headquarters Information Security Officer to ensure that the connections meet USEPA security requirements, including entering into Interconnection Service Agreements as appropriate. This condition does not apply to manual entry of data by the Recipient or Operating JPA into systems operated and used by USEPA's regulatory programs for the submission of reporting and/or compliance data.

xxiii. All geospatial data created pursuant to this Agreement that is submitted to the State Water Board for use by USEPA or that is submitted directly to USEPA must be consistent with Federal Geographic Data Committee endorsed standards. Information on these standards may be found at www.fgdc.gov

xxiv. If the Recipient or Operating JPA is a water system that serves 500 or fewer persons, the Recipient represents that it has considered publicly-owned wells as an alternative drinking water supply.

xxv. The Recipient and Operating JPA each represent that it is not a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and it is not a

DRAFT

corporation that was convicted of a felony criminal violation under a Federal law within the preceding 24 months.

xxvi. The Recipient and Operating JPA agree to immediately notify the Project Manager in writing about any allegation of research misconduct involving research activities that are supported in whole or in part with USEPA funds under this Project, including fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results, or ordering, advising, or suggesting that subordinates engage in research misconduct.

xxvii. The Recipient and Operating JPA agree to comply with, and require all contractors and subcontractors to comply with, USEPA's Scientific Integrity Policy, available at https://www.epa.gov/osa/policy-epa-scientific-integrity, when conducting, supervising, and communicating science and when using or applying the results of science. For purposes of this condition scientific activities include, but are not limited to, computer modelling, economic analysis, field sampling, laboratory experimentation, demonstrating new technology, statistical analysis, and writing a review article on a scientific issue.

The Recipient and Operating JPA shall not suppress, alter, or otherwise impede the timely release of scientific findings or conclusions; intimidate or coerce scientists to alter scientific data, findings, or professional opinions or exert non-scientific influence on scientific advisory boards; knowingly misrepresent, exaggerate, or downplay areas of scientific uncertainty; or otherwise violate the USEPA's Scientific Integrity Policy. The Recipient and Operating JPA must refrain from acts of research misconduct, including publication or reporting, as described in USEPA's Policy and Procedures for Addressing Research Misconduct, Section 9.C, and must ensure scientific findings are generated and disseminated in a timely and transparent manner, including scientific research performed by contractors and subcontractors.

xxviii. The Recipient and Operating JPA agree to comply with the Animal Welfare Act of 1966 (7 USC 2131-2156). Recipient and Operating JPA also agree to abide by the "U.S. Government Principles for the Utilization and Care of Vertebrate Animals used in Testing, Research, and Training," available at http://grants.nih.gov/grants/olaw/references/phspol.htm#USGovPrinciples.

xxix. The Recipient and Operating JPA certify that no Project Funds will be used on:

a. Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities), telecommunications or video surveillance equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);
b. Telecommunications or video surveillance services provided by such entities or using such equipment;
c. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country;
d. Systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system; or
e. Other telecommunications or video surveillance services or equipment in violation of 2 CFR 200.216.

xxx. The Recipient agrees to comply with all applicable federal environmental cross-cutters, including the following:

DRAFT

a. Archeological and Historic Preservation Act (16 U.S.C. § 469; 54 U.S.C. §§ 312501-312508)
b. Clean Air Act (42 U.S.C. § 7401)
c. Coastal Barriers Resources Act (16 U.S.C. § 3501 et seq.)
d. Coastal Zone Management Act (16 U.S.C. § 1451 et seq.)
e. Endangered Species Act (16 U.S.C. § 1531 et seq.)
f. Farmland Protection Policy Act (7 U.S.C. § 4201 et seq.)
g. Floodplain Management [Executive Order 11988 (1977), as amended by Executive Order No. 12148 (1979)]
h. Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq.)
i. National Historic Preservation Act (54 U.S.C. §§ 300101 et seq.)
j. Sole Source Aquifer, section 1424(e) of Safe Drinking Water Act, 42 U.S.C. 300h-3(e)
k. Wetlands Protection – Executive Order No. 11990 (1977), as amended by Executive Order No. 12608 (1997)
l. Wild and Scenic Rivers Act (16 U.S.C. § 1271 et seq.)

DRAFT

EXHIBIT D – SPECIAL CONDITIONS

D.1 Payment Agreements.

D.1.1 Execution and Delivery of the Payment Agreements.

As a condition precedent of this Agreement, the Recipient and Operating JPA shall enter into Payment Agreements with each Member, providing for each Member's payment to the Recipient of its Allocated Share of Payments, Additional Payments, Reserve Fund Contributions, Member Contributions, and all other amounts required to be paid under this Agreement, and all Project Bond Payments. Prior to execution of this Agreement, the Recipient shall deliver executed copies of these Payment Agreements to the Division, which are to be attached as Exhibits to this Agreement. The Payment Agreements so executed and delivered must be satisfactory to the State Water Board's counsel and in accordance with the requirements for the Payment Agreements detailed in this Exhibit D, in addition to any other terms required elsewhere in this Agreement to be included in the Payment Agreements.

D.1.2 Payment Provisions.

(a) Each Payment Agreement must require that the Member must pay to the Recipient its Allocated Share of any and all amounts the Recipient or the Operating JPA is obligated to pay to the State Water Board under this Agreement, including but not limited to all Payments, Additional Payments, damages for breach of tax-exempt status, and damages for breach of federal conditions, and all Project Bond Payments. Each Payment Agreement must also require that the Member must make Reserve Fund Contributions to the Recipient and make Member Contributions to the Operating JPA sufficient for the Recipient and Operating JPA to meet their obligations under this Agreement.

(b) Each Member must pay its Allocated Share of any amounts due under this Agreement to the Recipient no later than five (5) business days prior to the date on which such amounts become due and payable by the Recipient. If any amount under this Agreement becomes due and payable by the Recipient immediately upon the occurrence of an event, each Member's Allocated Share of such amount shall automatically become immediately due and payable to the Recipient without further action by the Recipient or the State Water Board, and the Recipient shall not be entitled to any additional grace period for the collection of the Allocated Shares of such amount from the Members.

(c) Each Member shall be entitled to pay its Allocated Share of Project Bond Payments directly to a trustee or holder of Project Bonds other than the State Water Board as may be provided in the documentation for such Project Bonds; provided, however that the Member must give prompt notice of such payments to the Division as required by D.1.8(d)(iii) below. Such payments are Revenues within the meaning of this Agreement and are subject to the lien and pledge of this Agreement notwithstanding that they are not received by the Recipient.

(d) Each Member is obligated to pay its Allocated Share of all payments required by this Agreement or its Payment Agreement, notwithstanding any individual default by its constituents or others in the payment to the Member of fees, charges, taxes, assessments, tolls or other charges ("Member Charges") levied or imposed by the Member. Each Member must provide for the punctual payment to the Recipient of all amounts which become due under its Payment Agreement and which are received from constituents or others in the payment to the Member. In the event of failure, neglect or refusal of any officer of a Member to levy or cause to be levied any Member Charge to provide payment by the Member under its Payment Agreement, to enforce or to collect such Member Charge, or to pay over to the Recipient any money collected on account of such Member Charge necessary to satisfy any amount due under its Member Agreement, the Recipient may take such action in a court of competent jurisdiction as it

DRAFT

deems necessary to compel the performance of all duties relating to the imposition or levying and collection of any of such Member Charges and the payment of the money collected therefrom to the Recipient. Action taken pursuant hereto shall not deprive the Recipient of, or limit the application of, any other remedy provided by law or by the Payment Agreement.

(e) The obligation of each Member to make the Member Payments and other payments required to be made by it under its Payment Agreement, from its Member Net Revenues and/or other amounts legally available to the Member therefor, is absolute and unconditional, and until such time as the Payments and Additional Payments have been paid in full, the Member must not discontinue or suspend any Member Payments or other payments required to be made by it under the Payment Agreement when due, whether or not the Project, or any related part thereof is operating or operable or has been completed, or its use is suspended, interfered with, reduced or curtailed or terminated in whole or in part, and such Member Payments and other payments shall not be subject to reduction whether by offset or otherwise and shall not be conditional upon the performance or nonperformance by any party of any agreement for any cause whatsoever. For the avoidance of doubt, no Member shall be excused from its obligation to make Member Payments or to pay its Allocated Share of any other amounts due from the Recipient or Operating JPA under this Agreement by any default of any other Project Party. Additionally, each Member shall be responsible for its Allocated Share of any amounts becoming due under this Agreement due to a default by one or more Project Parties (e.g., Additional Payments, penalty interest, damages for breach of tax-exempt status, damages for breach of federal conditions, etc.) regardless of whether it committed the default causing such amounts to be due.

D.1.3 Security for Member Payments and Financial Covenants of the Members.

In each Payment Agreement, each Member shall be required to agree to the following:

D.1.3.1 Establishment of Member Enterprise Fund.
In order to carry out its Member Obligations, each Member covenants that it shall establish and maintain or shall have established and maintained a Member Enterprise Fund. All Member Revenues received by each Member shall be deposited when and as received in trust in such Member's Member Enterprise Fund.

D.1.3.2 Pledge of Member Net Revenues and Member Enterprise Fund.
Each Member's Member Payment Obligation shall be secured by a lien on and pledge of the Member's Member Enterprise Fund and Member Net Revenues on parity with the Member Parity Obligations. Each Member shall pledge and grant such lien on and pledge of its Member Enterprise Fund and Member Net Revenues to secure its Member Payment Obligation. Each Member Enterprise Fund and the Member Net Revenues in each Member Enterprise Fund shall be subject to the lien of such pledge without any physical delivery thereof or further act, and the lien of such pledge shall be valid and binding as against all parties having claims of any kind in tort, contract, or otherwise against the Member.

D.1.3.3 Application and Purpose of the Member Enterprise Funds.
Subject to the provisions of any outstanding Member Obligation, money on deposit in the Member Enterprise Funds shall be applied and used first, to pay Member Operations and Maintenance Costs, and thereafter, all amounts due and payable with respect to the Member Obligations in order of priority. After making all payments hereinabove required to be made in each Fiscal Year, each Member may expend in such Fiscal Year any remaining money in its Member Enterprise Fund for any lawful purpose of the Member.

D.1.3.4 No Prepayment.
The Payment Agreements must not allow a Member to prepay any portion of its Allocated Share of the principal and interest due under this Agreement without the written consent of the Deputy Director of the Division.

DRAFT

D.1.3.5 Members' Rates, Fees, and Charges.
(a) Each Member must, to the extent permitted by law, fix, prescribe and collect rates, fees and charges for its Member System during each Fiscal Year which are reasonable, fair, and nondiscriminatory and which will be sufficient to generate Member Revenues in the amounts necessary to cover such Member's Member Operations and Maintenance Costs, and must ensure that Member Net Revenues are equal to the sum of (i) at least 120% of the Maximum Annual Debt Service with respect to all outstanding Member Obligations senior to and on parity with the Member Payment Obligation and (ii) at least 100% of the Maximum Annual Debt Service with respect to all outstanding Member Obligations subordinate to the Member Payment Obligation, so long as such Member's Member Obligations other than its Member Payment Obligation are outstanding. Upon defeasance of all of a Member's Member Obligations other than its Member Payment Obligation, this ratio must be at least 120%, except where Member Obligations are defeased pursuant to refunding obligations.

(b) Each Member may make adjustments from time to time in such fees and charges and may make such classification thereof as it deems necessary, but shall not reduce the rates, fees and charges then in effect unless the Member Net Revenues from such reduced rates, fees, and charges will at all times be sufficient to meet the requirements of this section.

(c) Upon consideration of a voter initiative to reduce a Member's Member Revenues, the Member must make a finding regarding the effect of such a reduction on the Member's ability to satisfy the rate covenant described in Section D.1.3.5(a). The Member must make its findings available to the public. The Member's Member Authorized Representative must request, if necessary, the authorization of the Member's decision-maker or decision-making body to file litigation to challenge any such initiative that it finds will render it unable to satisfy the rate covenant described in D.1.3.5(a) and its obligation to make Member Contributions to operate and maintain the Project for its Useful Life. The Member must diligently pursue and bear any and all costs related to such challenge. The Member must notify and regularly update the Recipient and the State Water Board regarding the status of any such challenge.

D.1.3.6 Additional Member Obligations.
(a) The future debt of any Member that is secured by Member Revenues pledged herein may not be senior to the Member's Member Payment Obligation. For the avoidance of doubt, this prohibition shall apply to any future debt issued by any joint powers authority of which the Member is a member and to any future Water Supply Debt. The Member's share of debt service payments on any such future debt must not be senior in right of payment to the Member's Member Payment Obligation or any Member Parity Obligations, and the issuance of any such debt for which the Member is obligated to pay a share of debt service payments must comply with the requirements of D.1.3.6(b) herein.

(b) A Member may issue additional Member Parity Obligations or Member Subordinate Obligations only if all of the following conditions are met:

i. No Event of Default under this Agreement or event of default of the Member's Payment Agreement (or no event with respect to which notice has been given and which, once all notice of grace periods have passed, would constitute such an event) has occurred and is continuing;
ii. The Member's Member Net Revenues in the most recent Fiscal Year, excluding transfers from a rate stabilization fund, if any, and including an allowance for any increase in Member Revenues arising in the current or next five Fiscal Years from any increase in rates and charges imposed by the Member that have been adopted by the governing board of the Member as of the date of the calculation, meet the ratio for rate covenants set forth in D.1.3.5(a) with respect to any outstanding and proposed additional Member Obligations;
iii. The Member is in compliance with its obligation to make Reserve Fund Contributions

DRAFT

(c) Las Virgenes Municipal Water District's Member Payment Obligation is secured by its Member Net Revenues, which represent the combined net revenues of the Las Virgenes Potable Water System, the Las Virgenes Recycled Water System, and the Las Virgenes Wastewater System (each, a "Las Virgenes Subsystem"). In addition to the rules for additional debt described in D.1.3.6(a) and (b) above, Las Virgenes Municipal Water District may issue additional debt secured by its Member Net Revenues only if it is in compliance with the supplemental financial information requirement contained in D.1.12 below.

(d) No Member shall make a pledge of or place any lien on its Member System, Member Revenues, or any ownership interest it holds in the Project or the Joint System except as otherwise provided or permitted by the Payment Agreement. Las Virgenes Municipal Water District shall not make a pledge of or place any lien on any Las Virgenes Subsystem or the revenues thereof, except as otherwise provided or permitted by its Payment Agreement.

D.1.4 Payment Agreement Events of Default

Under each Payment Agreement, occurrence of each of the following events must be defined to be an event of default:

(a) Failure by the Member to make any payment of its Allocated Share of any amount required to be paid pursuant to this Agreement, including Payments and Project Bond Payments;

(b) A representation or warranty made by or on behalf of the Member in any document furnished by or on behalf of the Member to the State Water Board pursuant to this Agreement shall prove to have been inaccurate, misleading or incomplete in any material respect;

(c) A material adverse change in the condition of the Member, its Member Revenues, or its Member System, which the Division reasonably determines would materially impair the Recipient's ability to satisfy its obligations under the Agreement or the Member's obligations under the Member's Payment Agreement.

(d) Failure by the Member to comply with the additional debt test required in its Payment Agreement or to make Reserve Fund Contributions;

(e) Failure by the Member to operate its Member System without the Division's approval;

(f) Failure by the Member to observe and perform any covenant, condition, or provision in its Payment Agreement, which failure shall continue for a period of time, to be determined by the Recipient or by the Division pursuant to its power to enforce the Payment Agreement;

(g) The occurrence of a material breach or event of default under any Member Obligation or Member Material Obligation that results in the acceleration of principal or interest or otherwise requires immediate prepayment, repurchase or redemption;

(h) Initiation of proceedings seeking arrangement, reorganization, or any other relief under any applicable bankruptcy, insolvency, or other similar law; the appointment of or taking possession of the Member's property by a receiver, liquidator, assignee, trustee, custodian, conservator, or similar official; the Member's entering into a general assignment for the benefit of creditors; the initiation of resolutions or proceedings to terminate the Recipient's existence, or any action in furtherance of any of the foregoing;

(i) A determination pursuant to Gov. Code section 11137 that the Member has violated any provision in Article 9.5 of Chapter 1 of Part 1 of Division 3 of Title 2 of the Government Code; or

DRAFT

(j) Loss of the Member's rights, licenses, permits, or privileges necessary for the operation of its Member System, or the occurrence of any material restraint on the Member's enterprise by a government agency or court order.

D.1.5 Representations and Warranties of the Members.

In each Payment Agreement, the Member shall make all of the following representations, warranties, and commitments as of the Eligible Work Start Date and continuing thereafter for the term of the Payment Agreement.

D.1.5.1 Application and General Member Commitments.
The Member has not made, or caused either directly or by omission the Recipient or Operating JPA to make, any untrue statement of a material fact in the application for State Water Board financial assistance or in any other communication with the State Water Board related to the Recipient's application for State Water Board financial assistance.

D.1.5.2 Authorization and Validity.
The execution and delivery of the Payment Agreement, including all incorporated documents, has been duly authorized by the Member. Upon execution by all parties, the Payment Agreement constitutes a valid and binding obligation of the Member, enforceable in accordance with its terms, except as such enforcement may be limited by law.

D.1.5.3 No Violations.
The execution, delivery, and performance by the Member of the Payment Agreement, including any incorporated documents, do not violate any provision of any law or regulation in effect as of the dates of execution of the Payment Agreement by the Member, or result in any breach or default under any contract, obligation, indenture, or other instrument to which the Member is a party or by which the Member is bound as of the date of execution of the Payment Agreement by the Recipient.

D.1.5.4 No Litigation.
There are, as of the dates of execution of the Payment Agreement by the Member, no pending or, to the knowledge of the Member, threatened actions, claims, investigations, suits, or proceedings before any governmental authority, court, or administrative agency which materially affect, or, if resolved unfavorably to the Member, would materially affect the financial condition or operations of the Member, the Member System, the Member Revenues, and/or the Project.

There are no proceedings, actions, or offers by a public entity to acquire by purchase or the power of eminent domain the Member System or any of the real or personal property related to or necessary for the Project.

D.1.5.5 Solvency and Insurance.
None of the transactions contemplated by this Agreement will be or have been made with an actual intent to hinder, delay, or defraud any present or future creditors of the Member. The Member is solvent and will not be rendered insolvent by the transactions contemplated by the Payment Agreement. The Member is able to pay its debts as they become due. The Member maintains sufficient insurance coverage considering the scope of the Payment Agreement, including, for example but not necessarily limited to, general liability, automobile liability, workers compensation and employer liability, professional liability.

D.1.5.6 Legal Status and Eligibility.
The Member is duly organized and existing and in good standing under the laws of the State of California. The Member must at all times maintain its current legal existence and preserve and keep in full force and

DRAFT

effect its legal rights and authority. The Member acknowledges that changes to its legal or financial status may affect the Recipient's eligibility for funding under the Agreement and commits to maintaining its eligibility. Within the preceding ten years, the Member has not failed to demonstrate compliance with state or federal audit disallowances.

D.1.5.7 Financial Statements and Continuing Disclosure.
The financial statements of the Member previously delivered to the State Water Board directly by the Member or delivered to the Recipient or the Operating JPA for transmission to the State Water Board in connection with the Recipient's application for financial assistance as of the date(s) set forth in such financial statements: (a) are materially complete and correct; (b) present fairly the financial condition of the Member; and (c) have been prepared in accordance with GAAP. Since the date(s) of such financial statements, there has been no material adverse change in the financial condition of the Member, nor have any assets or properties reflected on such financial statements been sold, transferred, assigned, mortgaged, pledged or encumbered, except as previously disclosed in writing by the Member and approved in writing by the State Water Board.

The Member is current in its continuing disclosure obligations associated with its material debt, if any.

D.1.5.8 Member Obligations
The Member has no Member Obligations other than those disclosed to the Recipient and the State Water Board in connection with the Recipient's application for financial assistance.

D.1.5.9 No Other Material Obligations.
The Member has no Member Material Obligations other than those disclosed to the Recipient and the State Water Board in connection with the Recipient's application for financial assistance.

D.1.5.10 Compliance with State Water Board Funding Agreements.
The Member represents that it is in compliance with all State Water Board funding agreements to which it is a party.

D.1.6 Remedies

Each Payment Agreement must provide that, for every remedy for enforcement of this Agreement against the Recipient or the Operating JPA available to the State Water Board under this Agreement or at law, the same must be available against the Member for enforcement of the Payment Agreement. This must include all rights to return of funds, acceleration of principal, and payment of penalty interest and Additional Payments described in Section C.2.1; all applicable administrative and judicial remedies described in Section C.2.3 and C.2.4; termination and payment of penalty interest as described in Section C.2.5; the Member's acceptance of paying its Allocated Share of any damages for breach of tax-exempt status or breach of federal conditions as described in Section C.2.6 and C.2.7, regardless of whether the breach leading to such damages was caused by the Member; and all other remedies provided for under the Agreement. Each Payment Agreement must contain non-exclusive remedies, limitations, non-waiver, and status quo clauses substantially equivalent to those found in Sections C.2.8, C.2.9, and C.2.10 of this Agreement to the satisfaction of the State Water Board's counsel.

D.1.7 Other Standard Conditions

Each Payment Agreement must require the Member to agree to the following standard conditions:

D.1.7.1 Assignability

The Payment Agreement must not be assignable by the Member, either in whole or in part, without the consent of the State Water Board in the form of a formal written amendment to this Agreement.

DRAFT

D.1.7.2 Audit

In connection with the Division's right to call for an audit of financial information relative to the Project as provided in Section C.3.5 of the Agreement, the Member must agree to cooperate fully with any such audit.

D.1.7.3 Operation and Maintenance; Insurance.

The Member must agree to sufficiently and properly staff, operate and maintain all portions of its Member System during the Useful Life of the Project in accordance with all applicable state and federal laws, rules, and regulations.

The Member must agree to procure and maintain or cause to be maintained insurance on its Member System with responsible insurers, or as part of a reasonable system of self-insurance, in such amounts and against such risks (including damage to or destruction of its Member System) as are usually covered in connection with systems similar to its Member System. Such insurance may be maintained by a self-insurance plan so long as such plan provides for (i) the establishment by the Member of a separate segregated self-insurance fund in an amount determined (initially and on at least an annual basis) by an independent insurance consultant experienced in the field of risk management employing accepted actuarial techniques and (ii) the establishment and maintenance of a claims processing and risk management program.

In the event of any damage to or destruction of the Member System caused by the perils covered by such insurance, the net proceeds thereof shall be applied to the reconstruction, repair or replacement of the damaged or destroyed portion of the Member System. The Member must begin such reconstruction, repair or replacement as expeditiously as possible, and must pay out of such net proceeds all costs and expenses in connection with such reconstruction, repair or replacement so that the same must be completed and the Member System must be free and clear of all claims and liens. If such net proceeds are insufficient to reconstruct, repair, or restore the Member System to the extent necessary to enable the Member to pay all remaining unpaid principal portions of its Allocated Share of the Payments, if any, in accordance with the terms of the Agreement and the Payment Agreement, the Member must provide additional funds to restore or replace the damaged portions of the Member System.

The Member must agree that for any policy of insurance concerning or covering the construction of the Project, it will cause, and will require its contractors and subcontractors to cause, a certificate of insurance to be issued showing the State Water Board, its officers, agents, employees, and servants as additional insured; and must provide the Division with a copy of all such certificates prior to the commencement of construction of the Project.

D.1.8 Notice

Each Payment Agreement must require the Member to provide notice within the required timeframes of the following events to both the Recipient and the State Water Board:

(a) Within 24 hours, the Member must notify the Recipient and the Division of the seizure of, or levy on, any Member Revenues securing the Member Payment Obligation.
(b) As soon as practicable but not later than five (5) business days after the following, the Member must notify the Recipient and the Division of the occurrence of any of the following events:
    i. Bankruptcy, insolvency, receivership or similar event of the Member, or actions taken in anticipation of any of the foregoing;
    ii. Change of ownership of the Member System or change of management or service contracts, if any, for operation of the Member System;

iii. Loss, theft, damage, or impairment to the Member System or the Member Revenues;
iv. The Member's failure to meet any debt service coverage test in Exhibit D of the Agreement;
v. Following establishment and full funding of the Reserve Fund, any request by the Recipient for any additional Reserve Fund Contribution resulting from a deficiency of the Reserve Fund or reflecting financial difficulties of the Recipient or any Member;
vi. Listed Events and events of default under the Payment Agreement, except as otherwise set forth in this section;
vii. Failure to observe or perform any covenant or comply with any condition in the Payment Agreement;
viii. An offer from a public entity to purchase the Member System or any portion thereof, or the Member's ownership interest in the Project or the Joint System;
ix. A proceeding or action by a public entity to acquire the Member System or any portion thereof, or the Member's ownership interest in the Project or the Joint System, by the power of eminent domain;
x. Incurrence of a Member Obligation by the Member; or
xi. A default, event of acceleration, termination event, modification of terms, or other similar event under the terms of a Member Obligation, any of which reflect financial difficulties.

(c) As soon as practicable but not later than ten (10) business days, the Member must notify the Recipient and the Division of the following events:

i. Material defaults on any Member Material Obligation, other than the Member Payment Obligation;
ii. Unscheduled draws by the Member on material debt service reserves or credit enhancements, reflecting financial difficulties;
iii. Substitution of credit or liquidity providers, if any or their failure to perform;
iv. Any litigation pending or threatened with respect to the Project, the Member's technical, managerial or financial capacity to operate the Member System, the continued existence of the Member, or any judgment or court order relating to such litigation that has a significant effect on the Project or the Member System;
v. Circulation of a petition to repeal, reduce, or otherwise challenge the Member's rates for services of the Member System;
vi. Consideration of dissolution, or disincorporation, or any other event that could materially impair the Member Revenues;
vii. Adverse tax opinions, the issuance by the Internal Revenue Service or proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices of determinations with respect to the tax status of any tax-exempt bonds of the Member;
viii. Rating changes on outstanding Member Obligations, if any;
ix. Enforcement actions by or brought on behalf of the State Water Board or Regional Water Board against any the Member; or
x. Any investigation by the District Attorney, California State Auditor, Bureau of State Audits, USEPA's Office of Inspector General, the Internal Revenue Service, Securities and Exchange Commission, a grand jury, or any other state or federal agency, relating to the financial management, accounting procedures, or internal fiscal controls of any Project Party;

(d) The Member must notify the Division promptly of any of the following events:

i. The discovery of a false statement of fact or representation made in this Payment Agreement or in the application to the Division for financial assistance, or in any certification, report, or request for reimbursement made pursuant to the Agreement, by the Member or its employees, agents, or contractors, or by the Recipient or Operating JPA relating to the Member;

DRAFT

ii. Consideration of any amendment to the Payment Agreement, Operating JPA Agreement, or PFA Agreement which may have a material impact on the ability of the Member to meet any obligation or perform any covenant under the Payment Agreement;
iii. Direct payment of a Project Bond Payment by the Member to a trustee or holder of Project Bonds. The notice of such a payment shall include the identity of the trustee or holder of Project Bonds to which the payment was made, identification of the Project Bond for which the payment was made, the date, amount, and medium of the payment, and a certification of the Member Authorized Representative that the Project Bond Payment represents Revenues of the Recipient within the meaning of this Agreement and is subject to the lien and pledge of the Revenues established in this Agreement; or
iv. Any events requiring notice to the Division pursuant to the provisions of the Payment Agreement;

Notices to the Division required under this section must be given by phone at (916) 276-9978, by email to [PM email address and senior email address] and CleanWaterSRF@waterboards.ca.gov, and by mail to the contact address set forth in Section 4 of this Agreement. Emailed notices must reference the Recipient, the Agreement contract number ([insert]), and the Project Number 8768-110. Notices to the Recipient required under this section may be accomplished by any method the Recipient and the Member may agree upon; provided, however that the method and timing of such notice must be reasonably calculated to allow the Recipient to timely pass on such notice to the Division to fulfill its notice obligations under the Agreement.

D.1.9 Right of the State Water Board to Enforce the Payment Agreements

In each Payment Agreement, the Member shall acknowledge its intention that Member Payments required and the security provided under the Payment Agreement are intended for the benefit of the State Water Board, to repay the Obligation of the Recipient incurred under this Agreement. The State Water Board shall be named as a third party beneficiary to each Payment Agreement, and shall be entitled to take all steps, actions and proceedings reasonably necessary in its judgment to enforce, either jointly with the Recipient and Operating JPA or separately, all of the rights of the Recipient and all of the obligations thereto of the Members under the Payment Agreements. The State Water Board may pursue all remedies provided to it in this Agreement or otherwise available at law or in equity to enforce its interest in the Payment Agreements.

D.1.10 No Amendment to the Payment Agreements Without Consent.

Each Payment Agreement must contain a term providing that the Payment Agreement may not be amended in any way that may have a material impact on the ability of the Member to meet its Member Payment Obligation or meet any other covenant required of it by this Agreement without the express written consent of the Division. The Division shall have sole discretion to grant or refuse consent to such proposed amendments and may condition its consent on the execution of an amendment to this Agreement.

D.1.11 Rule of Construction.

The requirements of this Section D.1 are in addition to any requirements imposed on the Payment Agreements elsewhere in this Agreement. If any term in this Section shall be found to be inconsistent with any requirement established elsewhere in this Agreement, each term shall be held as applicable to the greatest extent possible. If any term in this Section shall be found to be in conflict with any requirement established elsewhere in this Agreement, the term given in this Exhibit D shall control.

D.1.12 Supplemental Financial Information of Las Virgenes Municipal Water District

Las Virgenes Municipal Water District shall submit audited financial reports to the Division on an annual basis, by December 31 of each year, until the Records Retention End Date. Beginning with the audited financial reports for the Fiscal Year ending June 30, 2027, the audited financial reports must include, either in the body of the report or in a supplemental statement, an itemization that shows the amount of each line item in Las Virgenes Municipal Water District's statements of (i) cash flows and (ii) revenues, expenses, and changes in net position, that is attributed to the Las Virgenes Potable Water Enterprise, the Las Virgenes Recycled Water System, and the Las Virgenes Wastewater System, respectively. In connection with the delivery of the audited financial reports, Las Virgenes Municipal Water District shall deliver a certificate to the Division which shall include a calculation based on the information provided in such audited financial reports which demonstrates to the Division's satisfaction whether revenues attributable to each Las Virgenes Subsystem were sufficient to pay the Member Operations and Maintenance Costs and the Debt Service on Member Obligations attributable to such Las Virgenes Subsystem in the relevant fiscal year. If such calculation demonstrates that revenues attributable to a Las Virgenes Subsystem were insufficient to pay the Member Operations and Maintenance Costs and the Debt Service on Member Obligations attributable to such Las Virgenes Subsystem (this determination, an "Adverse Determination"), within sixty (60) days of providing such calculation, Las Virgenes Municipal Water District must prepare and deliver to the Division a document which (x) details the anticipated Member Revenues, Member Operations and Maintenance Costs, and Debt Service payments attributable to the Las Virgenes Subsystem which was the subject of the Adverse Determination for the subsequent three fiscal years, (y) demonstrates Las Virgenes Municipal Water District's ability to make all Debt Service payments on all of its Member Obligations and pay all Member Operations and Maintenance Costs during the subsequent three fiscal years, and (z) details the corrective actions Las Virgenes Municipal Water District intends to undertake to ensure the fiscal sustainability of each of the Las Virgenes Subsystems, if any, including if necessary any plans to raise rates and charges. This document must be satisfactory to the Division.

D.2 Other Special Conditions

D.2.1 No Change to Allocated Share

The Allocated Share of each Member may not be modified without the express written consent of the Division, and no modification of the Allocated Shares shall become effective until the execution of an amendment to this Agreement reflecting such modification.

D.2.2 No Amendment to Incorporated Documents

The Recipient and Operating JPA agree that they shall not amend any document incorporated into this Agreement by Exhibit or by reference in any way that may have a material impact on the ability of the Member to meet its Member Payment Obligation or meet any other covenant required of it by this Agreement without the express written consent of the Division. The Division shall have sole discretion to grant or refuse consent to such proposed amendments and may condition its consent on the execution of an amendment to this Agreement.

[environmental]

D.3 Executive Order N-6-22 — Russian Sanctions.

DRAFT

On March 4, 2022, Governor Gavin Newsom issued Executive Order N-6-22 (the EO) regarding Economic Sanctions against Russia and Russian entities and individuals. “Economic Sanctions” refers to sanctions imposed by the U.S. government in response to Russia’s actions in Ukraine, as well as any sanctions imposed under state law. The EO directs state agencies to terminate contracts with, and to refrain from entering any new contracts with, individuals or entities that are determined to be a target of Economic Sanctions. Accordingly, should the State Water Board determine Recipient is a target of Economic Sanctions or is conducting prohibited transactions with sanctioned individuals or entities, that shall be grounds for termination of this Agreement. The State Water Board shall provide Recipient advance written notice of such termination, allowing Recipient at least 30 calendar days to provide a written response. Termination shall be at the sole discretion of the State Water Board.

The Recipient represents that the Recipient is not a target of economic sanctions imposed in response to Russia’s actions in Ukraine imposed by the United States government or the State of California. The Recipient is required to comply with the economic sanctions imposed in response to Russia’s actions in Ukraine, including with respect to, but not limited to, the federal executive orders identified in California Executive Order N-6-22, located at https://www.gov.ca.gov/wp-content/uploads/2022/03/3.4.22-Russia-Ukraine-Executive-Order.pdf and the sanctions identified on the United States Department of the Treasury website (https://home.treasury.gov/policy-issues/financial-sanctions/sanctions-programs-and-country-information/ukraine-russia-related-sanctions). The Recipient is required to comply with all applicable reporting requirements regarding compliance with the economic sanctions, including, but not limited to, those reporting requirements set forth in California Executive Order N-6-22 for all Recipients with one or more agreements with the State of California with an aggregated value of Five Million Dollars ($5,000,000) or more. Notwithstanding any other provision in this Agreement, failure to comply with the economic sanctions and all applicable reporting requirements may result in termination of this Agreement.

For Recipients with an aggregated agreement value of Five Million Dollars ($5,000,000) or more with the State of California, reporting requirements include, but are not limited to, information related to steps taken in response to Russia’s actions in Ukraine, including but not limited to:

1. Desisting from making any new investments or engaging in financial transactions with Russian institutions or companies that are headquartered or have their principal place of business in Russia;

2. Not transferring technology to Russia or companies that are headquartered or have their principal place of business in Russia; and

3. Direct support to the government and people of Ukraine.

DRAFT

EXHIBIT E – PAYMENT SCHEDULE

See the attached preliminary Payment Schedule, which may be updated as discussed in Exhibit B. The final Payment Schedule will be forwarded to the Recipient after all disbursements have been paid and construction of the Project has been completed.

DRAFT

EXHIBIT F – TAX CERTIFICATE

F.1 Purpose.

The purpose of this Exhibit F is to establish the reasonable expectations of the Recipient and the Operating JPA regarding the Project and the Project Funds, and is intended to be and may be relied upon for purposes of Sections 103, 141 and 148 of the Code and as a certification described in Section 1.148-2(b)(2) of the Treasury Regulations. This Exhibit F sets forth certain facts, estimates and circumstances which form the basis for the expectation of the Recipient and the Operating JPA that neither the Project nor the Bond Funded Portion of the Project Funds is to be used in a manner that would cause the Obligation to be classified as “arbitrage bonds” under Section 148 of the Code or “private activity bonds” under Section 141 of the Code.

F.2 Tax Covenant.

The Recipient and the Operating JPA agree that they will not take or authorize any action or permit any action within its reasonable control to be taken, or fail to take any action within its reasonable control, with respect to the Project which would result in the loss of the exclusion of interest on the Bonds from gross income for federal income tax purposes under Section 103 of the Code.

F.3 Governmental Unit.

The Recipient and the Operating JPA are each a state or local governmental unit as defined in Section 1.103-1 of the Treasury Regulations or an instrumentality thereof (a "Governmental Unit") and neither is the federal government or any agency or instrumentality thereof.

F.4 Financing of a Capital Project.

The Recipient and the Operating JPA will use the Project Funds to finance capital expenditures they have incurred or will incur for the construction, reconstruction, installation or acquisition of the Project in accordance with the terms of this Agreement. Such expenditures shall not have previously been financed with the proceeds of any other issue of indebtedness except for interim financing by the Recipient, the date of maturity, prepayment or redemption of which is within thirty (30) days of the date of disbursement of Project Funds under this Agreement. All Project Funds shall be allocated to expenditures by the Recipient within thirty (30) days of the date of disbursement, including (if at all) Project Funds allocated to repay interim financing of the Recipient. For purposes of this Section F.4, “interim financing” means notes, commercial paper, loans, lines of credit and other forms of short-term borrowing.

F.5 Ownership and Operation of Project.

The Operating JPA exclusively owns and, except as provided in Section F.12 hereof, operates the Project.

F.6 Temporary Period.

The Recipient and Operating JPA reasonably expect that at least eighty-five percent (85%) of the Bond Funded Portion of the Project Funds will be allocated to expenditures for the Project within three (3) years of the earlier of the effective date of this Agreement or the date the Bonds are issued ("Applicable Date"). The Recipient or Operating JPA has incurred, or reasonably expects that it will incur within six (6) months of the Applicable Date, a substantial binding obligation (i.e., not subject to contingencies within the control of the Recipient or a related party) to a third party to expend at least five percent (5%) of the Bond Funded Portion of the Project Funds on Project Costs. The completion of acquisition, construction,

DRAFT

improvement and equipping of the Project and the allocation of the Bond Funded Portion of the Project Funds to Project Costs will proceed with due diligence.

F.7 Working Capital.

No operational expenditures of the Recipient or Operating JPA or any related entity are being, have been or will be financed or refinanced with Project Funds.

F.8 Expenditure of Proceeds.

The Bond Funded Portion of the Project Funds shall be used exclusively for the following purposes: (i) Reimbursement Expenditures (as defined in Section F.20 below), (ii) Preliminary Expenditures (as defined in Section F.20 below) in an aggregate amount not exceeding twenty percent (20%) of the Bond Funded Portion of the Project Funds, (iii) capital expenditures relating to the Project originally paid by the Recipient on or after the date hereof, (iv) interest on the Obligation through the later of three (3) years after the Applicable Date or one (1) year after the Project is placed in service, and (v) initial operating expenses directly associated with the Project in the aggregate amount not more than five percent (5%) of the Bond Funded Portion of the Project Funds.

F.9 Private Use and Private Payments.

No portion of the Project Funds or the Project is being, has been or will be used in the aggregate for any activities that constitute a Private Use (as defined below). No portion of the principal of or interest with respect to the Payments will be secured by any interest in property (whether or not the Project) used for a Private Use or in payments in respect of property used for a Private Use, or will be derived from payments in respect of property used for a Private Use. "Private Use" means any activity that constitutes a trade or business that is carried on by persons or entities, other than a Governmental Unit. The leasing of the Project or the access by or the use of the Project by a person or entity other than a Governmental Unit on a basis other than as a member of the general public shall constitute a Private Use. Use by or on behalf of the State of California or any of its agencies, instrumentalities or subdivisions or by any local Governmental Unit and use as a member of the general public will be disregarded in determining whether a Private Use exists. Use under an arrangement that conveys priority rights or other preferential benefits is generally not use on the same basis as the general public. Arrangements providing for use that is available to the general public at no charge or on the basis of rates that are generally applicable and uniformly applied do not convey priority rights or other preferential benefits. For this purpose, rates may be treated as generally applicable and uniformly applied even if (i) different rates apply to different classes of users, such as volume purchasers, if the differences in rates are customary and reasonable; or (ii) a specially negotiated rate arrangement is entered into, but only if the user is prohibited by federal law from paying the generally applicable rates, and the rates established are as comparable as reasonably possible to the generally applicable rates. An arrangement that does not otherwise convey priority rights or other preferential benefits is not treated, nevertheless, as general public use if the term of the use under the arrangement, including all renewal options, is greater than 200 days. For this purpose, a right of first refusal to renew use under the arrangement is not treated as a renewal option if (i) the compensation for the use under the arrangement is redetermined at generally applicable, fair market value rates that are in effect at the time of renewal; and (ii) the use of the financed property under the same or similar arrangements is predominantly by natural persons who are not engaged in a trade or business.

F.10 No Sale, Lease or Private Operation of the Project.

The Project (or any portion thereof) will not be sold or otherwise disposed of, in whole or in part, to any person who is not a Governmental Unit prior to the final maturity date of the Obligation. The Project will not be leased to any person or entity that is not a Governmental Unit prior to the final maturity date of the Obligation. Except as permitted under Section F.12 hereof, the Recipient and Operating JPA will not

enter any contract or arrangement or cause or permit any contract or arrangement to be entered with persons or entities that are not Governmental Units if that contract or arrangement would confer on such persons or entities any right to use the Project on a basis different from the right of members of the general public. The contracts or arrangements contemplated by the preceding sentence include but are not limited to management contracts, take or pay contracts or put or pay contracts, and capacity guarantee contracts.

F.11 No Disproportionate or Unrelated Use.

No portion of the Project Funds or the Project is being, has been, or will be used for a Private Use that is unrelated or disproportionate to the governmental use of the Project Funds.

F.12 Management and Service Contracts.

The Recipient and Operating JPA each represent that, as of the date hereof, it is not a party to any contract, agreement or other arrangement with any persons or entities engaged in a trade or business (other than Governmental Units) that involve the management or operation of property or the provision of services at or with respect to the Project that does not comply with the standards of the Treasury Regulations, or Revenue Procedure 2017-13, as applicable. The Recipient and Operating JPA each represent that it will not be party to any such contract, agreement or arrangement with any person or entity that is not a Governmental Unit for the management of property or the provision of services at or with respect to the Project, while the Obligation (including any obligation or series thereof issued to refund the Obligation, as the case may be) is outstanding, except: (a) with respect to any contract, agreement or arrangement that does not constitute "private business use" of the Project under Code §141(b), or (b) with respect to any contract, agreement or arrangement that complies with (i) Revenue Procedure 97-13, 1997-1 C.B. 632, as amended by Revenue Procedure 2001-39, 2001-2 C.B. 38, and as amplified by Notice 2014-67, with respect to contracts entered into before August 18, 2017 and not materially modified or extended after August 18, 2017, or (ii) Revenue Procedure 2017-13, with respect to contracts entered into or materially modified or extended on or after August 18, 2017, or (c) with respect to any contract, agreement or arrangement that does not give rise to use of the Bond Funded Portion of the Project Funds or the Project by a non-Governmental Unit of more than the amount of such non-qualified use permitted by the Code, or (d) in the event that the Recipient or Operating JPA receives an opinion of counsel, satisfactory to the State Water Board and the Bank and expert in the issuance of state and local government bonds the interest on which is excluded from gross income under Section 103 of the Code ("Nationally-Recognized Bond Counsel"), that such contract, agreement or arrangement will not adversely affect the exclusion of the interest on the Obligation from gross income for federal income taxation purposes.

F.13 No Disposition of Financed Property.

As of the date hereof, the Recipient and Operating JPA do not expect to sell or otherwise dispose of any portion of the Project, in whole or in part, prior to the final maturity date of the Obligation.

F.14 Useful Life of Project.

As of the date hereof, the Recipient and Operating JPA reasonably expect that the economic useful life of the Project, commencing at Project Completion, will be at least equal to the term of this Agreement, as set forth in Exhibit A hereto.

F.15 Payments.

Payments generally are expected to be derived from assessments, taxes, fees, charges or other current Revenues of the Recipient in each year, and such current Revenues are expected to equal or exceed the Payments during each payment period. Any amounts accumulated in a sinking fund or bona fide debt

DRAFT

service fund to pay Payments (whether or not deposited to a fund or account established by the Recipient) will be disbursed to pay Payments within thirteen months of the initial date of accumulation or deposit. Any such fund used for the payment of Payments will be depleted once a year except for a reasonable carryover amount not exceeding the greater of earnings on such fund or one-twelfth of the Payments in either case for the immediately preceding year.

F.16 No Other Replacement Proceeds.

The Recipient and the Operating JPA will not use any of the Bond Funded Portion of the Project Funds to replace or substitute other funds of the Recipient or Operating JPA that were otherwise to be used to finance the Project or which are or will be used to acquire securities, obligations or other investment property reasonably expected to produce a yield that is materially higher than the yield on the Bonds.

F.17 No Sinking or Pledged Fund.

Except as set forth in Section F.18 below, the Recipient will not create or establish any sinking fund or pledged fund which will be used to pay Payments on the Obligation within the meaning of Section 1.148-1(c) of the Treasury Regulations. If any sinking fund or pledged fund comes into being with respect to the Obligation before the Obligation has been fully retired which may be used to pay the Payments, the Recipient will invest such sinking fund and pledged fund moneys at a yield that does not exceed the yield on the Bonds.

F.18 Reserve Amount.

The State Water Board requires that the Recipient maintain and fund a separate account in an amount equal to one (1) year of debt service with respect to the Obligation (the "Reserve Amount") as set forth in Exhibit B. The Recipient represents that the Reserve Amount is and will be available to pay debt service with respect to the Obligation, if and when needed. The Reserve Amount consists solely of revenues of the Recipient and does not include any proceeds of any obligations the interest on which is excluded from gross income for federal income tax purposes or investment earnings thereon. The aggregate of the Reserve Amount, up to an amount not exceeding the lesser of (i) ten percent of the aggregate principal amount of the Obligation, (ii) the maximum annual debt service with respect to the Obligation, or (iii) 125 percent of the average annual debt service with respect to the Obligation, will be treated as a reasonably required reserve fund.

F.19 Reimbursement Resolution.

The "reimbursement resolution" adopted by the Recipient and the Operating JPA is incorporated herein by reference.

F.20 Reimbursement Expenditures.

Reimbursements are disallowed, except as specifically authorized in Exhibit B or Exhibit D of this Agreement. To the extent so authorized, a portion of the Bond Funded Portion of the Project Funds may be applied to reimburse the Recipient and Operating JPA for Project Costs paid before the date hereof, so long as the Project Cost was (i) not paid prior to sixty (60) days before the adoption by the Recipient and Operating JPA of a declaration of official intent to finance the Project, (ii) not paid more than eighteen (18) months prior to the date hereof or the date the Project was placed-in-service, whichever is later, and (iii) not paid more than three (3) years prior to the date hereof (collectively, "Reimbursement Expenditures"), unless such cost is attributable to a "preliminary expenditure." Preliminary expenditure for this purpose means architectural, engineering, surveying, soil testing and similar costs incurred prior to the commencement of construction or rehabilitation of the Project, but does not include land acquisition, site preparation and similar costs incident to the commencement of acquisition, construction or

DRAFT

rehabilitation of the Project. Preliminary expenditures may not exceed 20% of the Bond Funded Portion of the Project Funds.

F.21 Change in Use of the Project.

The Recipient and Operating JPA reasonably expect to use all of the Bond Funded Portion of the Project Funds and the Project for the entire stated term to maturity of the Obligation. Absent an opinion of Nationally-Recognized Bond Counsel to the effect that such use of the Bond Funded Portion of the Project Funds will not adversely affect the exclusion from federal gross income of interest on the Bonds pursuant to Section 103 of the Code, the Recipient will use the Bond Funded Portion of the Project Funds and the Project solely as set forth in this Agreement.

F.22 Rebate Obligations.

If the Recipient and Operating JPA satisfy the requirements of one of the spending exceptions to rebate specified in Section 1.148-7 of the Treasury Regulations, amounts earned from investments, if any, acquired with the Bond Funded Portion of the Project Funds will not be subject to the rebate requirements imposed under Section 148(f) of the Code. If the Recipient or Operating JPA fail to satisfy such requirements for any period, they will notify the State Water Board and the Bank immediately and will comply with the provisions of the Code and the Treasury Regulations at such time, including the payment of any rebate amount calculated by the State Water Board or the Bank.

F.23 No Federal Guarantee.

The Recipient and Operating JPA will not directly or indirectly use any of the Bond Funded Portion of the Project Funds in any manner that would cause the Bonds to be "federally guaranteed" within the meaning of Section 149(b) of the Code, taking into account various exceptions including any guarantee related to investments during an initial temporary period until needed for the governmental purpose of the Bonds, investments as part of a bona fide debt service fund, investments of a reasonably required reserve or replacement fund, investments in bonds issued by the United States Treasury, investments in refunding escrow funds or certain other investments permitted under the Treasury Regulations.

F.24 Amendments.

The provisions in this Exhibit may be amended, modified or supplemented at any time to reflect changes in the Code upon obtaining written approval of the State Water Board and the Bank and an opinion of Nationally-Recognized Bond Counsel to the effect that such amendment, modification or supplement will not adversely affect the exclusion from federal gross income of interest on the Bonds pursuant to Section 103 of the Code.

F.25 Reasonable Expectations.

The Recipient and Operating JPA each warrant that, to the best of its knowledge, information and belief, and based on the facts and estimates as set forth in the tax covenants in this Exhibit, the expectations of the Recipient and the Operating JPA as set forth in this Exhibit are reasonable. The Recipient and Operating JPA are not aware of any facts or circumstances that would cause it to question the accuracy or reasonableness of any representation made in the provisions in this Exhibit.

F.26 Assignment.

The Recipient and Operating JPA consent to any pledge, sale, or assignment to the Bank or a trustee for the benefit of the owners of the Bonds, if any, at any time of any portion of the State Water Board's estate, right, title, and interest and claim in, to and under this Agreement and the right to make all related waivers and agreements in the name and on behalf of the State Water Board, as agent and attorney-in-

DRAFT

fact, and to perform all other related acts which are necessary and appropriate under this Agreement, if any, and the State Water Board's estate, right, title, and interest and claim in, to and under this Agreement to Payments (but excluding the State Water Board's rights to Additional Payments and to notices, opinions and indemnification under each Obligation).

DRAFT

AGENDA ITEM NO. 10.B

DATE: April 7, 2026

TO: Board of Directors

FROM: Finance and Administration

SUBJECT: Pure Water Project Las Virgenes-Triunfo: Authorization of Payment Obligation for Credit Agreement to Provide Interim Financing

---

SUMMARY:

The District (LVMWD) and Triunfo Water & Sanitation District (TWSD) are participating in the Pure Water Project (Project) through the Las Virgenes-Triunfo Joint Powers Authority (Operating JPA). In connection with the financing of the Project, the District and TWSD created the Las Virgenes-Triunfo Public Financing Authority (Financing JPA).

On April 6, 2026, the Operating JPA and Financing JPA Boards authorized the Administering Agent/General Manager to execute a Credit Agreement with Wells Fargo Bank (Bank) with a principal component in an amount not to exceed $155,000,000.

In connection with the interim financing, LVMWD will incur a payment obligation under the Payment Agreement in an amount equal to its allocable share of the Installment Payments, which will be commensurate with LVMWD's allocated share of costs under the Credit Agreement and Fee Agreement.

Staff recommends the Board pass, approve and adopt proposed Resolution No. 2670, authorizing the incurrence of a payment obligation under LVMWD's Payment Agreement, in an initial principal amount up to $109,430,000 (70.6% of loan amount), ratifying the prior approval of the Payment Agreement and authorizing its execution.

RECOMMENDATION(S):

Pass, approve and adopt proposed Resolution No. 2670, authorizing the incurrence of a payment obligation under LVMWD's Payment Agreement, in an initial principal amount up to $109,430,000, ratifying the prior approval of the Payment Agreement and authorizing its execution.

RESOLUTION NO. 2670

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT APPROVING A PAYMENT OBLIGATION UNDER THE PAYMENT

AGREEMENT IN AN INITIAL PRINCIPAL AMOUNT UP TO $109,430,000 WITH RESPECT TO A CREDIT AGREEMENT AND RELATED DOCUMENTATION RELATING TO THE PURE WATER PROJECT AND AUTHORIZING CERTAIN ACTIONS IN CONNECTION THEREWITH

(Reference is hereby made to Resolution No. 2670 on file in the District's Resolution Book and by this reference the same is incorporated herein.)

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

By approving the resolution, the District will be authorized to incur a payment obligation under the Payment Agreement in an initial principal amount up to $109,430,000. LVMWD will be obligated to pay its allocated share of the Installment Payments, which will be equal to amounts payable under the Credit Agreement and the Fee Agreement. TWSD will be responsible for paying its allocable share of the Installment Payments.

Amounts drawn under the Credit Agreement will bear interest at a variable rate that will be determined pursuant to the terms of the Credit Agreement. The Credit Agreement is expected to terminate in 2029. On or before this time, it is expected that the outstanding amount under the Credit Agreement will be repaid with the proceeds of a long-term financing instrument.

DISCUSSION:

The District and TWSD, in consultation with Financing JPA's municipal advisor, PFM Financial Advisors (PFM), determined that it would be in the best interests of LVMWD and TWSD to obtain interim financing for the Project.

Following a solicitation of potential lenders, the District and TWSD, in consultation with PFM, determined that the most favorable proposal to provide interim financing was submitted by Wells Fargo Municipal Capital Strategies, LLC (Bank).

To provide interim financing for the Project, the Operating JPA and the Financing JPA would enter into a Credit Agreement with the Bank, pursuant to which the Financing JPA and the Operating JPA can draw an aggregate amount up to $155,000,000. The Credit Agreement permits multiple draws, allowing for draws to be made only when needed and resulting in a "draw fee" only being payable on amounts actually outstanding (the Financing JPA will owe a lower commitment fee on amounts that are not drawn). The draws under the Credit Agreement are evidenced by a note to be executed and delivered by the Financing JPA.

Amounts drawn under the Credit Agreement will bear interest at a variable rate. Concurrently with the execution and delivery of the Credit Agreement, the Operating JPA and the Financing JPA will enter into a Fee Agreement with the Bank that sets forth certain fees payable to the Bank.

The amounts owed by the Financing JPA and the Operating JPA under the Credit Agreement and Fee Agreement will be payable from installments payments payable by the Operating JPA to the Financing JPA pursuant to an Installment Purchase Agreement by and between the Financing JPA and the Operating JPA. The Installment Payments will be paid from amounts paid directly to the Financing JPA by LVMWD and TWSD under separate Payment Agreements among the applicable district, the Financing JPA and the Operating JPA.

In connection with the interim financing, LVMWD will incur a payment obligation under the Payment Agreement in an amount equal to its allocable share of the Installment Payments, which will be commensurate with LVMWD's allocated share of costs under the Credit Agreement and Fee Agreement.

The Payment Agreement is an agreement among the Financing JPA, Operating JPA and LVMWD providing for the direct payment by the District to the Financing JPA of its share of allocable debt service relating to the Project. The District's allocable share of debt service is 70.60%. The Payment Agreement also contains certain covenants of LVMWD, including the rate covenant and the additional debt test.

For reference, the following documents have been attached:

Credit Agreement:

The Credit Agreement is an agreement among the Financing JPA, Operating JPA and Bank setting forth the terms of the interim financing and certain covenants and obligations of the parties. The Credit Agreement includes certain financial covenants, including an additional debt test and rate covenants for the districts and the Operating JPA.

Fee Agreement:

The Fee Agreement sets forth fees payable to the Bank in connection with the providing the available credit facility under the Credit Agreement.

Installment Purchase Agreement:

The Installment Purchase Agreement is an agreement between the Financing JPA and the Operating JPA pursuant to which the Operating JPA agrees to make installment payments to the Financing JPA. The installment payments will be payable solely from Operating JPA revenues, which consist primarily of amounts paid by the districts directly to the Financing JPA pursuant to the terms of the Payment Agreements with the districts. The installment payments will be applied by the Financing JPA to the payment of amounts payable under the Credit Agreement and the Fee Agreement. The Installment Purchase Agreement also provides certain covenants of the parties, including the Operating JPA's rate covenant.

GOALS:

Ensure Effective Utilization of the Public's Assets and Money

Prepared by: Brian Richie, Director of Finance and Technology

ATTACHMENTS:
Proposed Resolution No. 2670
Form of Credit Agreement
Form of Fee Agreement
Form of Installment Purchase Agreement

RESOLUTION NO. 2670

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT APPROVING A PAYMENT OBLIGATION UNDER THE PAYMENT AGREEMENT IN AN INITIAL PRINCIPAL AMOUNT UP TO $109,430,000 WITH RESPECT TO A CREDIT AGREEMENT AND RELATED DOCUMENTATION RELATING TO THE PURE WATER PROJECT AND AUTHORIZING CERTAIN ACTIONS IN CONNECTION THEREWITH

WHEREAS, the Las Virgenes Municipal Water District, a municipal water district that is duly organized and existing under the Municipal Water District Act (Water Code Section 71000 et seq. of the State of California) (the "District"), and Triunfo Water & Sanitation District, a county sanitation district that is duly organized and existing under the County Sanitation District Act (Health & Safety Code Section 4700 et seq. of the State of California) ("TWSD" and, together with the District, the "Project Participants"), are members of the Las Virgenes-Triunfo Joint Powers Authority, a joint exercise of powers agency relating to joint facilities of Las Virgenes Municipal Water District and Triunfo Water & Sanitation District (the "Operating JPA"), and jointly operate certain facilities through the Operating JPA; and

WHEREAS, the Project Participants and the Operating JPA desire to finance the design and construction of the Pure Water Project, which will be owned and operated by the Operating JPA and will consist of an advanced water purification facility to treat effluent from the Operating JPA's Tapia Water Reclamation Facility for potable use (the "Project"); and

WHEREAS, the Project Participants are members of the Las Virgenes-Triunfo Public Financing Authority, a joint exercise of powers agency that is duly organized and existing under and by virtue of the laws of the State of California (the "Financing JPA"), and the Project Participants and the Operating JPA have requested the assistance of the Financing JPA in connection with the financing of the Project; and

WHEREAS, the Operating JPA proposes to enter into an installment purchase agreement (the "Installment Purchase Agreement") with the Financing JPA to provide for the acquisition of the Project; and

WHEREAS, in order to fulfill its obligation to the Operating JPA under the Installment Purchase Agreement, the Financing JPA proposes to enter into a Credit Agreement (the "Credit Agreement") with Wells Fargo Municipal Capital Strategies, LLC (the "Lender") and the Operating JPA, and a related fee agreement (the "Fee Agreement") by and among the Operating JPA, Financing JPA and the Lender; and

WHEREAS, amounts owed under the Credit Agreement and the Fee Agreement will be payable from installment payments (the "Installment Payments") payable by the Operating JPA to the Financing JPA pursuant to the Installment Purchase Agreement; and

WHEREAS, the Board of Directors the District has previously authorized the execution and delivery by the District of a payment agreement (the "LVMWD Payment Agreement") by and among the Operating JPA, Financing JPA and the District, pursuant to which the District has agreed to pay its allocated share of debt service relating to the financing of the Project, which would include the Project Participant's allocated share of the Installment Payments; and

WHEREAS, forms of the Credit Agreement, Fee Agreement and Installment Purchase Agreement (collectively, the "Interim Financing Documents") have been submitted to this meeting and are on file with the Secretary of the Board of Directors of the District; and

WHEREAS, in accordance with California Government Code Section 5852.1, the District has obtained and wishes to disclose the information set forth in Exhibit A;

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE LAS VIRGENES MUNICIPAL WATER DISTRICT AS FOLLOWS:

SECTION 1. Approval of Recitals. The District hereby finds and determines that the foregoing recitals are true and correct.

SECTION 2. Approval of the Interim Financing Documents. The Interim Financing Documents are hereby approved substantially in the forms on file with the Secretary.

SECTION 3. Ratification of the LVMWD Payment Agreement and the Approval of the LVWMD Payment Obligation Relating to the Interim Financing Documents. The Board of Directors of the District (the "Board") hereby ratifies the prior approval of the LVMWD Payment Agreement, and approves an additional payment obligation of the District under the LVMWD Payment Agreement in an initial principal amount up to $109,430,000, (provided, that the amount of such additional payment obligation shall be adjusted as necessary to reflect the amounts payable under the LVMWD Payment Agreement related to the Credit Agreement and the Fee Agreement and such amount does not limit the amount of interest payable on such additional payment obligation), reflecting the District's allocated share of debt service relating to the Interim Financing Documents. Each of the President or Vice President of the Board, the General Manager or the Assistant General Manager of the District (each, an "Authorized Officer") is hereby singly authorized to execute and deliver the LVMWD Payment Agreement, including any supplements thereto, and are further hereby authorized to approve changes to the LVMWD Payment Agreement, including any supplements thereto, as may be necessary or appropriate to allow for the execution and delivery of the Interim Financing Documents by the Financing JPA and the Operating JPA, after consultation with the District's General Counsel or Stradling Yocca Carlson & Rauth LLP, as bond counsel.

SECTION 4. Other Actions. The Authorized Officers, the Secretary, or any other proper officer of the District, acting singly, be and each of them hereby is authorized and directed to execute and deliver any and all documents, agreements, certificates and instruments or any amendments related to the foregoing and to do and cause to be done any and all acts and things necessary or proper for carrying out the transactions contemplated by the LVWMD Payment Agreement and this Resolution, and any actions previously taken in connection with such matters is hereby ratified. In the event that the President and Vice President of the Board are unavailable to sign any of the agreements described herein, any other member of the Board or Authorized Officer may sign such agreement.

SECTION 5. Definitions. Unless otherwise defined herein, all terms used herein and not otherwise defined shall have the meanings given to such terms in the LVWMD Payment Agreement, unless the context otherwise clearly requires.

SECTION 6. Effective Date of Resolution. This Resolution shall take effect immediately.

SECTION 7. Certification. The Secretary shall certify to the adoption of this Resolution.

PASSED, APPROVED, AND ADOPTED this 7th day of April, 2026.

President

Secretary

(Seal)

APPROVED AS TO FORM:

District Counsel

EXHIBIT A

GOVERNMENT CODE SECTION 5852.1 DISCLOSURE

The following information consists of estimates that have been provided by PFM Financial Advisors LLC, the District's municipal advisor, and has been represented by such party to have been provided in good faith:

(A) True Interest Cost of the allocable share of Installment Payments: 2.551%

(B) Finance Charge of the allocable share of Installment Payments (Sum of all fees/charges paid to third parties): $123,550

(C) Net Proceeds of Installment Purchase Agreement allocable to the District to be received (net of finance charges, reserves and capitalized interest, if any): $105,900,000

(D) Total Payment Amount through maturity of the allocable share of Installment Payments: $111,556,311

The foregoing constitute good faith estimates only. The principal amount of the allocable share of Installment Payments, the true interest cost of the allocable share of Installment Payments, the finance charges thereof, the amount of proceeds received therefrom and total payment amount with respect thereto may differ from such good faith estimates due to: (a) the actual date of the execution of the Installment Purchase Agreement being different than the date assumed for purposes of such estimates; (b) the actual of principal amount of the allocable share of Installment Payments being different from the estimated amount used for purposes of such estimates; (c) the actual amortization of the allocable share of Installment Payments being different than the amortization assumed for purposes of such estimates; (d) the actual market interest rates at the time of execution of the Installment Purchase Agreement being different than those estimated for purposes of such estimates; (e) other market conditions; or (f) alterations in the District's financing plan, or a combination of such factors.

The actual date of execution of the Installment Purchase Agreement and the allocable share of Installment Payments will be determined by the District based on a variety of factors. The actual interest rate borne by Installment Purchase Agreement will depend on market interest rates at the time of sale thereof. The actual amortization of the allocable share of Installment Payments will also depend, in part, on market interest rates at the time of sale thereof. Market interest rates are affected by economic and other factors beyond the control of the District.

CREDIT AGREEMENT

dated as of [_____], 2026

among

LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY,

LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY

and

WELLS FARGO MUNICIPAL CAPITAL STRATEGIES, LLC

relating to:

$[_____]
LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY
[TAX-EXEMPT NOTE
(WELLS FARGO CREDIT AGREEMENT)]

CREDIT AGREEMENT

(This Table of Contents is not a part of this
Credit Agreement and is only
for convenience of reference)

SECTION	DESCRIPTION	PAGE
Parties		1
ARTICLE ONE	DEFINITIONS	2
Section 1.1.	Definitions	2
Section 1.2.	Incorporation of Certain Definitions by Reference	19
Section 1.3.	Accounting Terms and Determinations	19
Section 1.4.	Interpretation	19
Section 1.5.	Rates	20
Section 1.6.	Relation to Other Documents; Acknowledgment of Different Provisions of Related Documents; Incorporation by Reference	20
ARTICLE TWO	THE CREDIT FACILITY	21
Section 2.1.	Commitment to Lend	21
Section 2.2.	Method of Borrowing, Continuing Loans; Account to Which Proceeds of Loans to Be Credited	21
Section 2.3.	Maturity of Loans and Term Loans	22
Section 2.4.	Interest Rates	23
Section 2.5.	Fees	26
Section 2.6.	The Note	26
Section 2.7.	Optional Termination or Reduction of Commitment	26
Section 2.8.	Mandatory Termination or Reduction of Commitment	27
Section 2.9.	Optional Prepayments	27
Section 2.10.	General Provisions as to Payments	27
Section 2.11.	Computation of Interest and Fees	27
Section 2.12.	Funding Indemnity	27
Section 2.13.	Determination of Taxability	28
Section 2.14.	Payment Due on Non-Business Day to Be Made on Next Business Day	29
Section 2.15.	Default Rate	29
Section 2.16.	Net of Taxes, Etc.	29
Section 2.17.	Increased Costs	30
Section 2.18.	Margin Regulations	32
Section 2.19.	Maximum Rate; Payment of Fee	32
Section 2.20.	Security for Obligations and Pledge	32
Section 2.21.	Method of Payment; Etc.	33
Section 2.22.	Term Loans	33

ARTICLE THREE CONDITIONS PRECEDENT 34

Section 3.1. Conditions Precedent to the Effectiveness of this Agreement 34
Section 3.2. Borrowings During the Credit Period 37
Section 3.3. No Rating on Note; No DTC; No Offering Document; No Placement 38

ARTICLE FOUR REPRESENTATIONS AND WARRANTIES 38

Section 4.1. Representations of the Authority 38
Section 4.2. Representations of the Issuer 43

ARTICLE FIVE COVENANTS 48

Section 5.1. Covenants of the Authority 48
Section 5.2. Covenants of the Issuer 54

ARTICLE SIX DEFAULTS 61

Section 6.1. Events of Default and Remedies 61
Section 6.2. Remedies 65

ARTICLE SEVEN MISCELLANEOUS 66

Section 7.1. Amendments, Waivers, Etc. 66
Section 7.2. Notices. 66
Section 7.3. Survival of Covenants; Successors and Assigns 67
Section 7.4. Unconditional Obligations. 69
Section 7.5 Liability of Lender; Indemnification 70
Section 7.6. Expenses. 72
Section 7.7. No Waiver; Conflict. 73
Section 7.8. Modification, Amendment, Waiver, Etc. 73
Section 7.9. Dealing with the Authority and the Issuer. 73
Section 7.10. Severability. 74
Section 7.11. Counterparts. 74
Section 7.12. Table of Contents; Headings. 75
Section 7.13. Entire Agreement 75
Section 7.14. Governing Law 75
Section 7.15. Waiver of Jury Trial 75
Section 7.16 Right of Setoff; Other Collateral 76
Section 7.17. USA Patriot Act 76
Section 7.18. Assignment to Federal Reserve Bank 76
Section 7.19. No Advisory or Fiduciary Relationship 77
Section 7.20. EMMA Postings 77
Section 7.21. US QFC Stay Rules 77
Section 7.22. Treatment of Certain Information; Confidentiality 79
Section 7.23. Waiver of Rule of Construction 80
Section 7.24. Acknowledgement and Appointment as the Calculation Agent 80

EXHIBITS:

Exhibit A	—	Form of Note
Exhibit B	—	Form of Notice of Borrowing
Exhibit C	—	Form of Request for Extended Funded Period

CREDIT AGREEMENT

This CREDIT AGREEMENT dated as of [_____], 2026 (together with all amendments, supplements and other modifications hereto, this *"Agreement"*), among LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY, a joint exercise of powers entity duly organized and existing under and by virtue of the laws of the State of California (together with its permitted successors and assigns, the *"Authority"*), LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY, a joint exercise of powers entity duly organized and existing under and by virtue of the laws of the State of California (together with its permitted successors and assigns, the *"Issuer"*), and WELLS FARGO MUNICIPAL CAPITAL STRATEGIES, LLC (together with its successors and assigns, the *"Lender"*).

WITNESSETH:

WHEREAS, the Authority is a joint exercise of powers agency formed October 12, 1964, relating to joint facilities of the Las Virgenes Municipal Water District (*"LVMWD"*) and the Triunfo Water & Sanitation District (*"TWSD"*) duly organized and existing under and by virtue of the Authority Joint Powers Agreement (as defined herein) and the laws of the State of California;

WHEREAS, the Issuer was established pursuant to the Issuer Joint Powers Agreement (as defined herein) and is authorized by Chapter 5 of Division 7 of Title 1 of the Government Code of the State of California, including but not limited to Section 6540 *et seq.*, to finance and refinance the acquisition and construction of property for LVMWD and TWSD;

WHEREAS, LVMWD and TWSD are members of the Authority and jointly operate certain facilities through the Authority and the Issuer is empowered to assist the Authority, LVMWD and TWSD in financing capital improvements;

WHEREAS, LVMWD and TWSD desire to finance the design and construction of the Project (as defined herein) and, in connection with such financing of the Project, the Authority and the Issuer have requested the Lender to establish the Commitment and make Loans and Term Loans as set forth herein and the Lender is prepared to establish the Commitment and make such Loans and Term Loans, in each case, subject to the terms and conditions of this Agreement;

WHEREAS, in order to evidence and secure the Loans and Term Loans, the Authority and the Issuer have authorized the issuance by the Issuer of the Note (as defined herein; and

NOW, THEREFORE, in consideration of the foregoing recitals, the mutual agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and in order to induce the Lender to establish the Commitment and execute and deliver this Agreement and make Loans and Term Loans, in each case, subject to the terms and conditions of this Agreement, the Lender, the Authority and the Issuer agree as follows:

ARTICLE ONE

DEFINITIONS

Section 1.1. Definitions. As used in this Agreement:

"*Act*" means the Joint Exercise of Powers Act of the State of California (being Section 6500 *et seq*. of the Government Code of the State of California, as amended) and all laws amendatory thereof or supplemental thereto.

"*Affiliate*" means, as to any Person, any other Person directly or indirectly controlling, controlled by, or under direct or indirect common control with, such Person. A Person shall be deemed to be "controlled by" any other Person if such other Person possesses, directly or indirectly, power (a) to vote 10% or more of the securities (on a fully diluted basis) having ordinary voting power for the election of directors or managing general partners; or (b) to direct or cause the direction of the management and policies of such Person whether by contract or otherwise.

"*Agreement*" has the meaning set forth in the introductory paragraph hereof.

"*Alternate Rate*" means, for any day, the rate per annum equal to the highest of (i) the Prime Rate then in effect, and (ii) the Federal Funds Rate *plus* 0.50%. Any change in the Alternate Rate due to a change in the Prime Rate or the Federal Funds Rate shall be effective from and including the effective date of such change in the Prime Rate or the Federal Funds Rate, respectively.

"*Alternate Rate Loan*" means any Loan bearing interest at a rate based upon the Alternate Rate as provided in Section 2.4(d) and/or 2.11 hereof.

"*Amortization End Date*" means, with respect to any Term Loan, the earliest to occur of: (i) the fifth (5th) anniversary of the Facility Maturity Date, and (ii) the date on which the Commitment could have been permanently reduced to zero or this Agreement is otherwise terminated, including as a result of the occurrence of an Event of Default.

"*Amortization Payment Date*" means, with respect to each Term Loan, (a) the Facility Maturity Date and the first Business Day of each third (3rd) calendar month occurring thereafter prior to the Amortization End Date and (b) the related Amortization End Date.

"*Anti-Corruption Laws*" means all laws, rules, and regulations of any jurisdiction from time to time concerning or relating to bribery or corruption, including the United States Foreign Corrupt Practices Act of 1977 and the rules and regulations thereunder and the U.K. Bribery Act 2010 and the rules and regulations thereunder.

"*Anti-Money Laundering Laws*" means any and all laws, statutes, regulations or obligatory government orders, decrees, ordinances or rules related to terrorism financing, money laundering, any predicate crime to money laundering or any financial record keeping, including any applicable provision of the Patriot Act and The Currency and Foreign Transactions Reporting Act (also

known as the "Bank Secrecy Act," 31 U.S.C. §§ 5311-5330 and 12 U.S.C. §§ 1818(s), 1820(b) and 1951-1959).

"*Applicable Factor*" means 80%.

"*Applicable Spread*" has the meaning set forth in the Fee Agreement.

"*Authority*" has the meaning set forth in the introductory paragraph hereof.

"*Authority Joint Powers Agreement*" means the Joint Exercise of Powers Agreement, dated January 26, 2009, by and between LVMWD and TWSD, as the same may be amended, supplemented, modified or restated in accordance with the terms thereof and hereof.

"*Authorized Authority Representative*" means the Administering Agent or any other authorized representative or authorized spokesperson conveying an official position of the Authority, or such person at the time and from time to time authorized to act on behalf of the Authority by written certificate furnished to the Lender.

"*Authorized Issuer Representative*" means the Executive Director, Treasurer and Deputy Treasurer or any other authorized representative or authorized spokesperson conveying an official position of the Issuer, or such person at the time and from time to time authorized to act on behalf of the Issuer by written certificate furnished to the Lender.

"*Available Tenor*" means, as of any date of determination and with respect to the then-current Benchmark, as applicable, (a) if such Benchmark is a term rate, any tenor for such Benchmark (or component thereof) that is or may be used for determining the length of an interest period pursuant to this Agreement or (b) otherwise, any payment period for interest calculated with reference to such Benchmark (or component thereof) that is or may be used for determining any frequency of making payments of interest calculated with reference to such Benchmark, in each case, as of such date and not including, for the avoidance of doubt, any tenor for such Benchmark that is then-removed pursuant to Section 2.11(c)(iv), if applicable.

"*Bank Agreement*" means any credit agreement, direct purchase agreement, bond purchase agreement, liquidity agreement, standby bond purchase agreement, reimbursement agreement or other agreement or instrument (or any amendment, supplement or modification thereto) entered into by the Authority or the Issuer with any Person, directly or indirectly, or otherwise consented to by the Authority or the Issuer, under which any Person or Persons undertakes to directly purchase, make loans, extend credit or liquidity to the Authority or the Issuer in connection with any of the Authority's or the Issuer's Debt payable from or secured by a lien on all or any portion of Revenues senior to or on a parity with the Obligations.

"*Base Rate*" means, for any day, a fluctuating rate of interest per annum equal to the greatest of (i) the Prime Rate in effect at such time *plus* one percent (1.00%), (ii) the Federal Funds Rate in effect at such time *plus* two percent (2.00%) and (iii) seven percent (7.00%). Any change in the Base Rate due to a change in the Prime Rate or the Federal Funds Rate shall be effective

from and including the effective date of such change in the Prime Rate or the Federal Funds Rate, respectively.

"*Benchmark*" means, initially, Daily Simple SOFR; *provided, however*, that if a Benchmark Transition Event has occurred with respect to Daily Simple SOFR or the then-current Benchmark, then "Benchmark" means the applicable Benchmark Replacement to the extent that such Benchmark Replacement has replaced such prior Benchmark pursuant to Section 2.4(d) hereof.

"*Benchmark Replacement*" means, with respect to any Benchmark Transition Event for any then-current Benchmark, the sum of: (a) the alternate benchmark rate that has been selected by the Lender and the Authority giving due consideration to (i) any selection or recommendation of a replacement benchmark rate or the mechanism for determining such a rate by the Relevant Governmental Body or (ii) any evolving or then-prevailing market convention for determining a benchmark rate as a replacement to the then-current Benchmark for Dollar-denominated syndicated or bilateral credit facilities and (b) the related Benchmark Replacement Adjustment; *provided* that, if such Benchmark Replacement as so determined would be less than the Floor, such Benchmark Replacement will be deemed to be the Floor for the purposes of this Agreement and the other Related Documents.

"*Benchmark Replacement Adjustment*" means, with respect to any replacement of the then-current Benchmark with an Unadjusted Benchmark Replacement for any applicable Available Tenor, the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) that has been selected by the Lender and the Authority giving due consideration to (a) any selection or recommendation of a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement by the Relevant Governmental Body or (b) any evolving or then-prevailing market convention for determining a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement for Dollar-denominated syndicated or bilateral credit facilities.

"*Benchmark Replacement Date*" means the earliest to occur of the following events with respect to the then-current Benchmark:

(a) in the case of clause (a) or (b) of the definition of "Benchmark Transition Event," the later of (i) the date of the public statement or publication of information referenced therein and (ii) the date on which the administrator of such Benchmark (or the published component used in the calculation thereof) permanently or indefinitely ceases to provide such Benchmark (or such component thereof) or, if such Benchmark is a term rate, all Available Tenors of such Benchmark (or such component thereof); or

(b) in the case of clause (c) of the definition of "Benchmark Transition Event," the first date on which such Benchmark (or the published component used in the calculation thereof) or, if such Benchmark is a term rate, all Available Tenors of such Benchmark (or such component thereof) have been determined and announced by the regulatory

supervisor for the administrator of such Benchmark (or such component thereof) to be non-representative; *provided*, that such non-representativeness will be determined by reference to the most recent statement or publication referenced in such clause (c) and even if such Benchmark (or such component thereof) or, is such Benchmark is a term rate, any Available Tenor of such Benchmark (or such component thereof) continues to be provided on such date.

For the avoidance of doubt, if such Benchmark is a term rate, the "Benchmark Replacement Date" will be deemed to have occurred in the case of clause (a) or (b) with respect to any Benchmark upon the occurrence of the applicable event or events set forth therein with respect to all then-current Available Tenors of such Benchmark (or the published component used in the calculation thereof).

"Benchmark Transition Event" means, with respect to the then-current Benchmark, the occurrence of one or more of the following events with respect to the then-current Benchmark:

(a) a public statement or publication of information by or on behalf of the administrator of such Benchmark (or the published component used in the calculation thereof) announcing that such administrator has ceased or will cease to provide such Benchmark (or such component thereof) or, if such Benchmark is a term rate, all Available Tenors of such Benchmark (or such component thereof), permanently or indefinitely; *provided* that, at the time of such statement or publication, there is no successor administrator that will continue to provide such Benchmark (or such component thereof) or, if such Benchmark is a term rate, any Available Tenor of such Benchmark (or such component thereof);

(b) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof), the FRB, the Federal Reserve Bank of New York, the central bank for the Currency applicable to such Benchmark, an insolvency official with jurisdiction over the administrator for such Benchmark (or such component), a resolution authority with jurisdiction over the administrator for such Benchmark (or such component) or a court or an entity with similar insolvency or resolution authority over the administrator for such Benchmark (or such component), which states that the administrator of such Benchmark (or such component) has ceased or will cease to provide such Benchmark (or such component thereof) or, if such Benchmark is a term rate, all Available Tenors of such Benchmark (or such component thereof) permanently or indefinitely; *provided* that, at the time of such statement or publication, there is no successor administrator that will continue to provide such Benchmark (or such component thereof) or, if such Benchmark is a term rate, any Available Tenor of such Benchmark (or such component thereof); or

(c) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof) announcing that such Benchmark (or such component thereof) or, if such Benchmark is a term rate, all Available Tenors of such Benchmark (or such component thereof) are not, or as of a specified future date will not be, representative.

For the avoidance of doubt, if such Benchmark is a term rate, a "Benchmark Transition Event" will be deemed to have occurred with respect to any Benchmark if a public statement or publication of information set forth above has occurred with respect to each then-current Available Tenor of such Benchmark (or the published component used in the calculation thereof).

"*Benchmark Transition Start Date*" means, with respect to any Benchmark, in the case of a Benchmark Transition Event, the earlier of (a) the applicable Benchmark Replacement Date and (b) if such Benchmark Transition Event is a public statement or publication of information of a prospective event, the 90th day prior to the expected date of such event as of such public statement or publication of information (or if the expected date of such prospective event is fewer than 90 days after such statement or publication, the date of such statement or publication).

"*Benchmark Unavailability Period*" means, with respect to any then-current Benchmark, the period (if any) (x) beginning at the time that a Benchmark Replacement Date has occurred if, at such time, no Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Related Document in accordance with Section 2.11(c) hereof and (y) ending at the time that a Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Loan Document in accordance with Section 2.11(c) hereof.

"*Borrowing*" means the borrowing of a Loan, as requested in each Notice of Borrowing.

"*Business Day*" means any day other than (i) a Saturday or Sunday or (ii) a day on which banks in the State of California are required or authorized by law to be closed, or (iii) a day on which the Lender is required or authorized by law to be closed.

"*Calculation Agent*" means Wells Fargo Bank, National Association or its affiliates.

"*Change in Law*" means the occurrence, after the Closing Date, of any of the following: (a) the adoption or taking effect of any Law, rule, regulation or treaty, including, without limitation Risk-Based Capital Guidelines, (b) any change in any Law, rule, regulation or treaty or in the administration, interpretation, implementation or application thereof by any Governmental Authority or (c) the making or issuance of any request, rule, ruling, guideline, regulation or directive (whether or not having the force of law) by any Governmental Authority; provided that notwithstanding anything herein to the contrary, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, rulings, guidelines, regulations or directives thereunder or issued in connection therewith and (ii) all requests, rules, rulings, guidelines, regulations or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States of America or foreign regulatory authorities, in each case pursuant to Basel III and each successor Basel accord, shall in each case be deemed to be a "Change in Law," regardless of the date enacted, adopted or issued.

"*Closing Date*" means [_____], 2026, subject to the satisfaction (or waiver by the Lender) of all of the conditions precedent set forth in Section 3.1 hereof.

"*Code*" means the Internal Revenue Code of 1986, as amended, and any successor statute thereto, and the regulations promulgated thereunder

"*Commitment*" means the amount of $[_____], as such amount may be reduced from time to time or terminated pursuant to Sections 2.7, 2.8 and 6.2 hereof.

"*Commitment Fee*" has the meaning set forth in the Fee Agreement.

"*Confidential Information*" means any permitted redactable information regarding the Authority, the Issuer, the Lender or any Affiliate of the Lender including, without limitation, address and account information, e-mail addresses, telephone numbers, facsimile numbers, names and signatures of officers, employees and signatories.

"*Conforming Changes*" means, with respect to either the use or administration of Daily Simple SOFR or the use, administration, adoption or implementation of any Benchmark Replacement, any technical, administrative or operational changes (including changes to the definition of "Alternate Base Rate," the definition of "Business Day," the definition of "U.S. Government Securities Business Day," the definition of "Interest Period" or any similar or analogous definition (or the addition of a concept of "interest period"), timing and frequency of determining rates and making payments of interest, timing of borrowing requests or prepayment, conversion or continuation notices, the applicability and length of lookback periods, the applicability of Section 2.11 hereof and other technical, administrative or operational matters) that the Lender decides may be appropriate to reflect the adoption and implementation of any such rate or to permit the use and administration thereof by the Lender in a manner substantially consistent with market practice (or, if the Lender decides that adoption of any portion of such market practice is not administratively feasible or if the Lender determines that no market practice for the administration of any such rate exists, in such other manner of administration as the Lender decides is reasonably necessary in connection with the administration of this Agreement and the other Related Documents).

"*Credit Period*" means the period from and including the Closing Date to and including the Termination Date, unless extended as provided herein.

"*Daily Simple SOFR*" means, for any day (a "*SOFR Rate Day*"), a rate per annum equal to the greater of (a) SOFR for the day (such day, a "*SOFR Determination Day*") that is five (5) U.S. Government Securities Business Days prior to (A) if such SOFR Rate Day is a U.S. Government Securities Business Day, such SOFR Rate Day or (B) if such SOFR Rate Day is not a U.S. Government Securities Business Day, the U.S. Government Securities Business Day immediately preceding such SOFR Rate Day, in each case, as such SOFR is published by the SOFR Administrator on the SOFR Administrator's Website; *provided* that if by 5:00 p.m. (New York City time) on the fifth (5th) U.S. Government Securities Business Day immediately following any SOFR Determination Day, SOFR in respect of such SOFR Determination Day has not been published on the SOFR Administrator's Website and a Benchmark Replacement Date with respect to Daily Simple SOFR has not occurred, then SOFR for such SOFR Determination Day will be SOFR as published in respect of the first immediately preceding U.S. Government Securities Business Day for which such SOFR was published on the SOFR Administrator's Website;

provided further that SOFR as determined pursuant to this proviso shall be utilized for purposes of calculation of Daily Simple SOFR for no more than three (3) consecutive SOFR Rate Days and (b) the Floor. Any change in Daily Simple SOFR due to a change in SOFR shall be effective from and including the effective date of such change in SOFR without notice to the Authority or the Issuer.

"Daily SOFR Rate" means a per annum rate of interest equal to sum of (a) the Applicable Spread *plus* (b) the product of (i) Daily Simple SOFR multiplied by (ii) the Applicable Factor. The Daily SOFR Rate shall be rounded upwards to the fifth decimal place. Upon the occurrence and during the occurrence of an Event of Default the Daily SOFR Rate shall equal the Default Rate.

"Debt" of any Person means, without duplication, (i) all obligations of such Person evidenced by bonds, debentures, notes, certificates, securities or other similar instruments, (ii) all obligations of such Person for borrowed money, (iii) all obligations of such Person to pay the deferred purchase price of property or services, except trade accounts payable arising in the ordinary course of business, (iv) obligations of such Person as lessee under any lease of property, real or personal, that, in accordance with GAAP, would be required to be capitalized on a balance sheet of the lessee thereof, (v) obligations of such Person to reimburse or repay any bank or other Person in respect of amounts paid or advanced under a letter of credit, line of credit, credit agreement, liquidity facility or other instrument or other amounts loaned pursuant to a Bank Agreement, (vi) all obligations of such Person to purchase securities (or other property) which arise out of or in connection with the sale of the same or substantially similar securities or property or obligations for the deferred purchase price of property or services (other than trade accounts payable occurring in the ordinary course of business), (vii) all Guarantees by such Person of Debt of other Persons; (viii) all obligations arising under or pursuant to any Swap Contract and (ix) all obligations of other Persons secured by a lien on, or security interest in, any asset of such Person whether or not such obligation is assumed by such Person.

"Default" means any condition or event which with the giving of notice or lapse of time or both would, unless cured or waived, become an Event of Default.

"Default Rate" means a per annum rate of interest equal to the sum of the Base Rate from time to time in effect *plus* three percent (3.00%).

"Determination of Taxability" means and shall be deemed to have occurred on the first to occur of the following:

(i) on the date on which the Authority or the Issuer files any statement, supplemental statement or other tax schedule, return or document which discloses that interest paid or payable on the Note, any Loan or any Term Loan is includable, in whole or in part, in the gross income of a Noteholder or any former Noteholder for federal income tax purpose;

(ii) the date on which the Lender or any Noteholder or former Noteholder notifies the Authority or the Issuer that it has received a written opinion by a nationally recognized firm of attorneys of substantial expertise on the subject of tax-exempt municipal

finance to the effect that interest paid or payable on the Note, any Loan or any Term Loan is includable, in whole or in part, in the gross income of a Noteholder or any former Noteholder for federal income tax purposes unless, within one hundred eighty (180) days after receipt by the Authority or the Issuer of such notification from the Lender or such Noteholder or any former Noteholder, the Authority or the Issuer shall deliver to the Lender, the Noteholder and any former Noteholder a ruling or determination letter issued to or on behalf of the Authority or the Issuer by the Commissioner of the Internal Revenue Service or the Director of Tax-Exempt Bonds of the Tax-Exempt and Government Entities Division of the Internal Revenue Service (or any other government official exercising the same or a substantially similar function from time to time, including an employee subordinate to one of these officers who has been authorized to provide such ruling or determination letter) or a written opinion of its Note Counsel to the effect that, after taking into consideration such facts as form the basis for the opinion that an Event of Taxability has occurred, an Event of Taxability shall not have occurred;

(iii) the date on which the Authority or the Issuer shall be advised in writing by the Commissioner of the Internal Revenue Service or the Director of Tax-Exempt Bonds of the Tax-Exempt and Government Entities Division of the Internal Revenue Service (or any other government official exercising the same or a substantially similar function from time to time, including an employee subordinate to one of these officers who has been authorized to provide such advice) that, based upon filings of the Authority or the Issuer, or upon any review or audit of the Authority or the Issuer or upon any other ground whatsoever, interest paid or payable on the Note, any Loan or any Term Loan is includable, in whole or in part, in the gross income of a Noteholder or any former Noteholder for federal income tax purposes; or

(iv) the date on which the Authority or the Issuer shall receive notice from the Noteholder or any former Noteholder that the Internal Revenue Service (or any other government official or agency exercising the same or a substantially similar function from time to time) has assessed as includable in the gross income of the Lender, such Noteholder or such former Noteholder all or a portion of the interest on the Note, any Loan or any Term Loan due to the occurrence of an Event of Taxability;

provided, however, no Determination of Taxability shall occur under subparagraph (iii) or (iv) hereunder unless the Authority or the Issuer has been afforded the opportunity, at its expense, to contest any such assessment or opinion, and, further, no Determination of Taxability shall occur until such contest, if made, has been finally determined; *provided further, however,* that upon demand from the Lender, such Noteholder or former Noteholder, the Authority or the Issuer shall promptly reimburse, the Lender, such Noteholder or former Noteholder for any payments, including any taxes, interest, penalties or other charges, the Lender, such Noteholder or former Noteholder shall be obligated to make as a result of the Determination of Taxability.

"Dollars" and the sign *"$"* means lawful money of the United States of America.

"Electronic Record" has the meaning assigned to that term in, and shall be interpreted in accordance with, 15 U.S.C. 7006.

"*Electronic Signature*" has the meaning assigned to that term in, and shall be interpreted in accordance with, 15 U.S.C. 7006.

"*ERISA*" means the Employee Retirement Income Security Act of 1974, as amended, or any successor statute thereto.

"*Event of Default*" has the meaning set forth in Section 6.1 hereof.

"*Event of Taxability*" means a (i) change in Law or fact or the interpretation thereof, or the occurrence or existence of any fact, event or circumstance (including, without limitation, the taking of any action by the Authority or the Issuer, or the failure to take any action by the Authority, or the making by the Authority or the Issuer of any misrepresentation herein or in any certificate given in connection with the Note, Loans or Term Loans) which has the effect of causing interest paid or payable on the Note, any Loan or any Term Loan to become includable, in whole or in part, in the gross income of the Lender, the Noteholder or any former Noteholder for federal income tax purposes or (ii) the entry of any decree or judgment by a court of competent jurisdiction, or the taking of any official action by the Internal Revenue Service or the Authority or the Issuer of the Treasury, which decree, judgment or action shall be final under applicable procedural law, in either case, which has the effect of causing interest paid or payable on the Note, any Loan or any Term Loan to become includable, in whole or in part, in the gross income of the Lender, the Noteholder or any former Noteholder for federal income tax purposes with respect to the Note, any Loan or any Term Loan.

"*Excess Interest*" has the meaning set forth in Section 2.19 hereof.

"*Excluded Taxes*" means, with respect to the Lender, any Participant or any Noteholder, (a) taxes imposed on or measured by its overall net income (however denominated), and franchise taxes imposed on it (in lieu of net income taxes), by the jurisdiction (or any political subdivision thereof) under the laws of which the Lender, such Participant or such Noteholder is organized or in which its principal office is located, and (b) any branch profits taxes imposed by the United States of America or any similar tax imposed by any other jurisdiction in which the Authority is located.

"*Facility Maturity Date*" means [_____, 2029], or, if such day is not a Business Day, the next preceding Business Day.

"*Favorable Opinion of Note Counsel*" means a written opinion of Note Counsel, addressed to the Authority, the Issuer and the Lender to the effect that the new Benchmark Replacement will not, in and of itself, cause interest on the Note or outstanding Loans or Term Loans to be included in gross income for purposes of federal income taxation.

"*Federal Funds Rate*" means, for any day, the rate per annum equal to the weighted average of the rates on overnight Federal funds transactions with members of the Federal Reserve System arranged by Federal funds brokers on such day, as published by the Federal Reserve Bank of New York on the Business Day next succeeding such day; *provided* that: (a) if such day is not a Business Day, then the Federal Funds Rate for such day shall be such rate on such transactions

on the next preceding Business Day as so published on the next succeeding Business Day; and (b) if no such rate is so published on such next succeeding Business Day, then the Federal Funds Rate for such day shall be the average rate (rounded, if necessary, to a whole multiple of one one-hundredth of 1.00%) charged to Wells Fargo Bank, National Association on such day on such transactions as determined by Wells Fargo Bank, National Association. Notwithstanding anything herein to the contrary, if the Federal Funds Rate as determined as provided above would be less than zero percent (0.0%), then the Federal Funds Rate shall be deemed to be zero percent (0.0%).

"*Fee Agreement*" means that certain Fee Agreement, dated the Closing Date, among the Issuer, the Authority and the Lender, as the same may be amended, modified or supplemented from time to time by written instrument executed by the Lender, the Issuer and the Authority, the terms of which are incorporated herein by reference.

"*Floor*" means the rate per annum equal to 0.00%.

"*Guarantee*" means, as to any Person, any (a) any obligation, contingent or otherwise, of such Person guaranteeing or having the economic effect of guaranteeing any Debt or other obligation payable or performable by another Person (the "*primary obligor*") in any manner, whether directly or indirectly, and including any obligation of such Person, direct or indirect, (i) to purchase or pay (or advance or supply funds for the purchase or payment of) such Debt or other obligation, (ii) to purchase or lease property, securities or services for the purpose of assuring the obligee in respect of such Debt or other obligation of the payment or performance of such Debt or other obligation, (iii) to maintain working capital, equity capital or any other financial statement condition or liquidity or level of income or cash flow of the primary obligor so as to enable the primary obligor to pay such Debt or other obligation, or (iv) entered into for the purpose of assuring in any other manner the obligee in respect of such Debt or other obligation of the payment or performance thereof or to protect such obligee against loss in respect thereof (in whole or in part), or (b) any Lien on any assets of such Person securing any Debt or other obligation of any other Person, whether or not such Debt or other obligation is assumed by such Person (or any right, contingent or otherwise, of any holder of such Debt to obtain any such Lien). The amount of any Guarantee shall be deemed to be an amount equal to the stated or determinable amount of the related primary obligation, or portion thereof, in respect of which such Guarantee is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by the guaranteeing Person in good faith. The term "Guarantee" as a verb has a corresponding meaning.

"*Issuer*" has the meaning as set forth in the introductory paragraph.

"*Issuer Joint Powers Agreement*" means the Joint Exercise of Powers Agreement, dated as of September 1, 2023, by and between LVMWD and TWSD as the same may be amended, supplemented, modified or restated in accordance with the terms thereof and hereof.

"*Fiscal Year*" means with respect to the Authority and the Issuer, the twelve-month period commencing on July 1 of each year and ending on June 30 of the same calendar year or such other twelve-month period as the Authority and the Issuer (as applicable) may from time to time determine as it Fiscal Year.

"*Fitch*" means Fitch Ratings, Inc. and its successor rating agency.

"*Government Acts*" means any act or omission to act, whether rightful or wrongful, of any present or future de jure or de facto government or Governmental Authority.

"*Governmental Approvals*" means all authorizations, consents, approvals, permits, licenses and exemptions of, and all registrations and filings with or issued by, any Governmental Authorities.

"*Governmental Authority*" means the government of the United States or any other nation, or of any political subdivision thereof or any governmental or quasi-governmental entity, whether state or local, and any department, commission, board, bureau, administration, district, agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory, fiscal, monetary or administrative powers or functions of or pertaining to government (including any supra-national bodies such as the European Union or the European Central Bank) or any arbitrator, mediator or other Person with authority to bind a party at law.

"*Indemnified Taxes*" means Taxes other than Excluded Taxes.

"*Information*" has the meaning as set forth in Section 7.22 hereof.

"*Installment Payment*" has the meaning set forth in the Installment Purchase Agreement.

"*Installment Purchase Agreement*" means the Installment Purchase Agreement, dated as of [_____], 2026 by and between the Authority and the Issuer, relating to the Note, as the same may be amended, supplemented, modified or restated in accordance with the terms thereof and hereof.

"*Installment Purchase Agreement Parity Debt*" means any Debt issued by or on behalf of the Authority or the Issuer secured by a lien on and/or payable from all or any portion of any Revenues.

"*Interest Payment Date*" means with respect to each Loan and each Term Loan, the first Business Day of each calendar month (with the first Interest Payment Date being [_____], 2026), the Facility Maturity Date and such earlier date on which all Loans and Term Loans are required to be paid in full in accordance with the terms hereof or, if applicable, on the Amortization End Date.

"*Joint System*" has the meaning set forth in the Authority Joint Powers Agreement.

"*Laws*" means, collectively, all international, foreign, federal, state and local statutes, treaties, rules, guidelines, regulations, ordinances, codes and administrative or judicial precedents or authorities, including the interpretation or administration thereof by any Governmental Authority charged with the enforcement, interpretation or administration thereof, and all applicable administrative orders, directed duties, requests, licenses, authorizations and permits of, and

agreements with, any Governmental Authority, in each case whether or not having the force of law.

"*Lien*" means, with respect to any property, tangible or intangible, real or personal, any mortgage, lien, pledge, charge, security interest or other encumbrance of any kind in respect of such property.

"*Lender*" means Wells Fargo Municipal Capital Strategies, LLC, and its successors and assigns.

"*Lender Affiliate*" means the Lender and any Affiliate of the Lender and includes, without limitation, Wells Fargo Bank, National Association, Wells Fargo Securities (a trade name).

"*Lender Rate*" means the rate of interest per annum with respect to any Term Loan (i) for any day commencing on the date such Term Loan is made to and including the one hundred eightieth (180th) day next succeeding the Facility Maturity Date, equal to the Base Rate from time to time in effect, and (ii) for any day commencing on the one hundred eighty-first (181st) day next succeeding the Facility Maturity Date and at all times thereafter, equal to the sum of the Base Rate from time to time in effect *plus* one percent (1.0%); *provided, however,* that immediately and automatically upon the occurrence of an Event of Default (and without any notice given with respect thereto) and during the continuance of such Event of Default, "*Lender Rate*" shall mean the Default Rate.

"*Lender-Related Persons*" means the Lender, its Affiliates and the officers, directors, employees, agents and attorneys-in-fact of the Lender and Affiliates.

"*Lender Transferee*" has the meaning set forth in Section 7.3 hereof.

"*Loan*" *or* "*Loans*" means a loan to be made by the Lender in accordance with the applicable Notice of Borrowing.

"*LVMWD*" has the meaning set forth in the recitals hereof.

"*LVMWD Revenues Debt*" means Debt issued by or on behalf of LVMWD secured by a lien on and/or payable from all or any portion of the LVMWD Revenues.

"*LVMWD Payment Agreement*" means the Payment Agreement dated as of [_____], 2026 by and among the Authority, the Issuer and LVMWD, as the same may be amended, supplemented, modified or restated in accordance with the terms thereof and hereof.

"*LVMWD Revenues*" has the meaning assigned to the term "Purchaser Revenues" in the LVMWD Payment Agreement.

"*LVMWD System*" has the meaning assigned to the term "Purchaser System" in the LVMWD Payment Agreement.

"*Majority Noteholder*" means the Noteholders with a majority of the aggregate ownership interest in Loans and Term Loans evidenced by the Note from time to time. As of the Closing Date, Wells Fargo Municipal Capital Strategies, LLC is the Majority Noteholder.

"*Material Adverse Effect*" or "*Material Adverse Change*" means (a) with respect to the Authority or the Issuer, a material adverse effect upon the Authority's or the Issuer's business, assets, liabilities (actual or contingent), properties, condition (financial or otherwise), results of operations or business prospects, and (b) with respect to the Authority's or the Issuer's obligations under this Agreement, the Fee Agreement or any other Related Document, a material adverse effect upon (i) the binding nature, validity or enforceability of the Authority's obligations hereunder or thereunder, (ii) the Authority's or the Issuer's ability to perform its obligations hereunder or thereunder or (iii) the rights, security or interests of the Lender.

"*Maximum Federal Corporate Tax Rate*" means, on any given day, the maximum rate of income taxation imposed on corporations pursuant to Section 11(b) of the Code, as in effect as of such day (or, if as a result of a change in the Code, the rate of income taxation imposed on corporations generally shall not be applicable to the Lender, the maximum statutory rate of federal income taxation which could apply to the Lender).

"*Maximum Rate*" means the maximum non-usurious lawful rate of interest permitted by applicable law.

"*Moody's*" means Moody's Investors Service, Inc. and any successor rating agency.

"*Net Revenues*" has the meaning set forth in the Payment Agreements.

"*Non-Lender Transferee*" has the meaning set forth in Section 7.2(c) hereof.

"*Note*" means the Las Virgenes-Triunfo Public Financing Authority **[Tax-Exempt Note (Wells Fargo Credit Agreement)],** such note to be executed and delivered to the Lender on the Closing Date in the form of Exhibit A attached hereto with appropriate insertions, executed and delivered by the Issuer, as the same may be amended, modified, restated or supplemented from time to time by written instrument executed by the Lender and the Issuer.

"*Noteholder*" means the Lender and each Lender Transferee or Non-Lender Transferee pursuant to the terms hereof so long as such Lender Transferee or Non-Lender Transferee owns an interest in the Note, as applicable, and shall include any holder of Loans or Term Loans.

"*Note Counsel*" means Stradling Yocca Carlson & Rauth LLP, or any other firm of attorneys nationally recognized on the subject of tax-exempt municipal finance selected by the Authority.

"*Notice of Borrowing*" has the meaning set forth in Section 2.2(a)(i) hereof.

"*Notice of Extension*" has the meaning set forth in Section 2.1(b) hereof.

"*Obligations*" means the Loans and Term Loans (which includes amounts owing to the Lender evidenced by and payable under the Note), the Commitment Fees and all other obligations of the Authority and the Issuer to the Lender arising under or in relation to this Agreement, the Fee Agreement or any of the other Related Documents (including any amounts to reimburse the Lender for any advances or expenditures by it under any of such documents), in each case whether now existing or hereafter arising, due or to become due, direct or indirect, absolute or contingent, and however evidenced, held or acquired.

"*OFAC*" means the U.S. Department of the Treasury's Office of Foreign Assets Control.

"*Payment Agreement Parity Debt*" means (i) the Project Bonds and (ii) any other Debt issued by or on behalf of the Authority or the Issuer secured by a lien on and/or payable from all or any portion of any Purchaser Revenues on a parity basis with the Project Bonds and/or the Obligations.

"*Participant*" has the meaning set forth in Section 7.3(b) hereof.

"*Participation*" has the meaning set forth in Section 7.3(b) hereof.

"*Patriot Act*" has the meaning set forth in Section 7.17 hereof.

"*Payment Account*" means ABA:121000248, Bank: Wells Fargo Bank, Account Number: _____, Account Name: Wires in Process, Address: _____, Reference/ Originator to beneficiary info: Customer Name: _____, Obligor: _____, or such other account as the Lender may designate from time to time.

"*Payment Agreements*" means, collectively, the LVMWD Payment Agreement and the TWSD Payment Agreement.

"*Person*" means an individual, a corporation, a partnership, an association, a limited liability company, an association, a joint venture, a trust, an unincorporated organization or any other entity or organization, including a government or political subdivision or any agency or instrumentality thereof.

"*Plan*" means a pension plan providing benefits for employees of any Person.

"*Prime Rate*" means at any time the rate of interest most recently announced within Wells Fargo Bank, National Association at its principal office as its prime rate, with the understanding that the Prime Rate is one of Wells Fargo Bank, National Association's base rates and serves as the basis upon which effective rates of interest are calculated for those loans making reference thereto, and is evidenced by the recording thereof after its announcement in such internal publication or publications as Wells Fargo Bank, National Association may designate; *provided, however,* that if the Prime Rate determined as provided above would be less than zero percent (0%), then the Prime Rate shall be deemed to be zero percent (0%). Each determination of the Prime Rate by Wells Fargo Bank, National Association will be conclusive and binding on the Authority absent manifest error.

"*Project*" has the meaning set forth in the Payment Agreements.

"*Project Bonds*" has the meaning set forth in the Payment Agreements.

"*Project Participants*" means LVMWD and TWSD.

"*Property*" means any interest in any kind of property or asset, whether real, personal or mixed, or tangible or intangible, whether now owned or hereafter acquired.

"*Purchaser Revenues*" means LVMWD Revenues and TWSD Revenues.

"*Rating*" means, with respect to any Rating Agency, the lowest of (i) the lowest rating assigned by such Rating Agency to any Payment Agreement Parity Debt (without regard to bond insurance or any other form of credit enhancement) and (ii) the long-term issuer credit rating on the Issuer.

"*Rating Agency*" and "*Rating Agencies*" means, individually or collectively, as applicable, Moody's, S&P and/or Fitch.

"*Recipient*" means the Lender, each Participant, each Noteholder and any other recipient of any payment to be made by or on account of any obligation of the Authority and the Issuer hereunder.

"*Related Documents*" means this Agreement, the Note, the Fee Agreement, the Tax Certificate, the Installment Purchase Agreement, each Payment Agreement, the Authority Joint Powers Agreement, the Issuer Joint Powers Agreement and all amendments, restatements and supplements thereof in accordance with the respective terms thereof and the terms hereof.

"*Related Parties*" means, with respect to any Person, such Person's Affiliates and the partners, directors, officers, employees, agents, trustees, administrators, managers, advisors and representatives of such Person and of such Person's Affiliates.

"*Relevant Governmental Body*" means the Board of Governors of the Federal Reserve System and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Board of Governors of the Federal Reserve System and/or the Federal Reserve Bank of New York or any successor thereto.

"*Revenues*" has the meaning set forth in the Installment Purchase Agreement.

"*Risk-Based Capital Guidelines*" means (a) the risk-based capital guidelines in effect in the United States of America, including transition rules, and (b) the corresponding capital regulations promulgated by regulatory authorities outside the United States of America including transition rules, and any amendment to such regulations.

"*Sanctioned Country*" means at any time, a country, region or territory which is itself (or whose government is) the subject or target of any Sanctions (including, as of the Closing Date, Cuba, Iran, North Korea, Syria, Venezuela and Crimea).

"*Sanctioned Person*" means, at any time, (a) any Person listed in any Sanctions-related list of designated Persons maintained by OFAC (including OFAC's Specially Designated Nationals and Blocked Persons List and OFAC's Consolidated Non-SDN List), the U.S. Department of State, the United Nations Security Council, the European Union, any European member state, His Majesty's Treasury, or other relevant sanctions authority, (b) any Person operating, organized or resident in a Sanctioned Country, (c) any Person owned or controlled by, or acting or purporting to act for or on behalf of, directly or indirectly, any such Person or Persons described in clauses (a) and (b), including a Person that is deemed by OFAC to be a Sanctions target based on the ownership of such legal entity by Sanctioned Person(s) or (d) any Person otherwise a target of Sanctions, including vessels and aircraft, that are designated under any Sanctions program.

"*Sanctions*" means any and all economic or financial sanctions, sectoral sanctions, secondary sanctions, trade embargoes and restrictions and anti-terrorism laws, including but not limited to those imposed, administered or enforced from time to time by the U.S. government (including those administered by OFAC or the U.S. Department of State), the United Nations Security Council, the European Union, any European member state, His Majesty's Treasury, or other relevant sanctions authority in any jurisdiction in which (a) the Authority or the Issuer or any of their respective Subsidiaries or Affiliates is located or conducts business, (b) in which any of the proceeds of the Loans or Term Loans will be used, or (c) from which repayment of the Loans or Term Loans will be derived.

"*S&P*" means S&P Global Ratings, and any successor rating agency.

"*SOFR*" means a rate equal to the secured overnight financing rate as administered by the SOFR Administrator.

"*SOFR Administrator*" means the Federal Reserve Bank of New York (or a successor administrator of the secured overnight financing rate).

"*SOFR Administrator's Website*" means the website of the Federal Reserve Bank of New York, currently at http://www.newyorkfed.org, or any successor source for the secured overnight financing rate identified as such by the SOFR Administrator from time to time.

"*SOFR Determination Day*" has the meaning specified in the definition of "Daily Simple SOFR".

"*SOFR Rate Day*" has the meaning specified in the definition of "Daily Simple SOFR".

"*State*" means the State of California.

"*State Loan Agreement*" means the agreement between the Borrower, the Issuer and the California State Water Resources Control Board relating to the Project, as the same may be amended, supplemented, modified or restated in accordance with the terms thereof.

"*Subsidiary*" of a Person means (i) any corporation more than 50% of the outstanding securities having ordinary voting power of which shall at the time be owned or controlled, directly or indirectly, by such Person or by one or more of its Subsidiaries, or (ii) any partnership, limited liability company, association, joint venture or similar business organization more than 50% of the ownership interests having ordinary voting power of which shall at the time be so owned or controlled.

"*Swap Contract*" means (a) any and all rate swap transactions, basis swaps, credit derivative transactions, forward rate transactions, commodity swaps, commodity options, forward commodity contracts, equity or equity index swaps or options, bond or bond price or bond index swaps or options or forward bond or forward bond price or forward bond index transactions, interest rate options, forward foreign exchange transactions, cap transactions, floor transactions, collar transactions, currency swap transactions, cross-currency rate swap transactions, currency options, spot contracts, or any other similar transactions or any combination of any of the foregoing (including any options to enter into any of the foregoing), whether or not any such transaction is governed by or subject to any master agreement, and (b) any and all transactions of any kind, and the related confirmations, which are subject to the terms and conditions of, or governed by, any form of master agreement published by the International Swaps and Derivatives Association, Inc., any International Foreign Exchange Master Agreement, or any other master agreement (any such master agreement, together with any related schedules, a "*Master Agreement*"), including any such obligations or liabilities under any Master Agreement.

"*Taxable Date*" means the date on which interest on any Loan, Term Loan or Note is first includable in the gross income of any holder thereof (including, without limitation, the Lender) as a result of an Event of Taxability as such date is established pursuant to a Determination of Taxability.

"*Taxable Period*" has the meaning set forth in Section 2.13 hereof.

"*Taxable Rate*" means, with respect to a Taxable Period, the product of (i) the interest rate on the Note, applicable Loan or applicable Term Loan during such period and (ii) the quotient of (A) one divided by (B) one minus the then current Maximum Federal Corporate Tax Rate.

"*Tax Certificate*" means each Tax Certificate delivered by the Authority and/or the Issuer as the same may be amended, supplemented, modified or restated in accordance with its terms.

"*Taxes*" means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, fines, additions to tax or penalties applicable thereto.

"*Term Loans*" has the meaning set forth in Section 2.22(a) hereof.

"*Termination Date*" means the Facility Maturity Date or, if earlier, the date on which the Commitment is terminated or permanently reduced to zero in accordance with the terms hereof.

"*TWSD*" has the meaning set forth in the recitals hereof.

"*TWSD Revenues Debt*" means Debt issued by or on behalf of TWSD secured by a lien on and/or payable from all or any portion of the TWSD Revenues.

"*TWSD Payment Agreement*" means the Payment Agreement dated as of [_____], 2026 by and among the Authority, the Issuer and TWSD, as the same may be amended, supplemented, modified or restated in accordance with the terms thereof and hereof.

"*TWSD Revenues*" has the meaning assigned to the term "Purchaser Revenues" in the TWSD Payment Agreement.

"*TWSD System*" has the meaning assigned to the term "Purchaser System" in the TWSD Payment Agreement.

"*U.S. Government Securities Business Day*" means any day except for (i) a Saturday, (ii) a Sunday or (iii) a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in United States government securities; *provided*, that for purposes of notice requirements in Section 2.2 hereof, in each case, such day is also a Business Day.

"*Unadjusted Benchmark Replacement*" means the applicable Benchmark Replacement excluding the related Benchmark Replacement Adjustment.

"*WIFIA Loan Agreement*" means the WIFIA Loan Agreement among the Issuer, the Authority and the United States Environmental Protection Agency, acting by and through the Administrator of the Environmental Protection Agency relating to the Las Virgenes-Triunfo Public Financing Authority Pure Water Project Las Virgenes-Triunfo (WIFIA ID – N22127CA) WIFIA Note, as the same may be amended, supplemented, modified or restated in accordance with the terms thereof.

"*2025 Financial Statements*" means, as applicable, the audited financial statements of the Authority for the Fiscal Year ended June 30, 2025.

Section 1.2. Incorporation of Certain Definitions by Reference. Each capitalized term used herein and not otherwise defined herein shall have the meaning provided therefor in the Installment Purchase Agreement.

Section 1.3. Accounting Terms and Determinations. All accounting terms not specifically defined herein shall be construed in accordance with generally accepted accounting principles.

Section 1.4. Interpretation. The following rules shall apply to the construction of this Agreement and the Fee Agreement unless the context requires otherwise: (a) the singular includes

the plural, and the plural the singular; (b) words importing any gender include the other gender and the neuter gender; (c) references to statutes are to be construed as including all statutory provisions consolidating, and all regulations promulgated pursuant to, such statutes; (d) references to "writing" include printing, photocopy, typing, lithography and other means of reproducing words in a tangible visible form; (e) the words "including," "includes" and "include" shall be deemed to be followed by the words "without limitation"; (f) references to the introductory paragraph, recitals, articles, sections (or clauses or subdivisions of sections), exhibits, appendices, annexes or schedules are to those of this Agreement unless otherwise indicated; (g) references to agreements and other contractual instruments shall be deemed to include all subsequent amendments and other modifications to such instruments, but only to the extent that such amendments and other modifications are permitted or not prohibited by the terms of this Agreement; (h) article and section headings in this Agreement are included herein for convenience of reference only and shall not constitute a part of this Agreement for any other purpose; and (i) unless otherwise indicated, references to Persons include their respective permitted successors and assigns; and (j) in the computation of a period of time from a specified date to a later specified date, the word "from" means "from and including" and the words "to" and "until" each means "to but excluding." All references to "funds" herein shall include all accounts and subaccounts therein unless the context clearly requires otherwise

Section 1.5. Rates. Section 2.4(d) of this Agreement provides a mechanism for determining an alternative rate of interest in the event that any Benchmark is no longer available or in certain other circumstances. Each of the Calculation Agent and the Lender do not warrant or accept any responsibility for and shall not have any liability with respect to, (a) the continuation of, administration of, submission of or calculation of, or any other matter related to, any Benchmark or any component definition thereof or rates referred to in the definition thereof, or any alternative or successor rate thereto, or replacement rate therefor (including any Benchmark Replacement), as it may or may not be adjusted pursuant to Section 2.4(d) hereof, including whether the composition or characteristics of any such alternative, successor or replacement rate (including any Benchmark Replacement) will be similar to, or produce the same value or economic equivalence of, or have the same volume or liquidity as, such Benchmark prior to its discontinuance or unavailability, or (b) the effect, implementation or composition of any Conforming Changes. The Calculation Agent, the Lender and their respective Affiliates and its affiliates or other related entities may engage in transactions that affect the calculation of any Benchmark, any alternative, successor or replacement rate (including any Benchmark Replacement) or any relevant adjustments thereto, in each case, in a manner adverse to the Authority or any other person or entity. The Calculation Agent and the Lender may select information sources or services in its reasonable discretion to ascertain any Benchmark, any component definition thereof or rates referred to in the definition thereof, in each case pursuant to the terms of this Agreement, and shall have no liability to the Authority or any other Person or entity for damages of any kind, including direct or indirect, special, punitive, incidental or consequential damages, costs, losses or expenses (whether in tort, contract or otherwise and whether at law or in equity), for any error or calculation of any such rate (or component thereof) provided by any such information source or service.

Section 1.6. Relation to Other Documents; Acknowledgment of Different Provisions of Related Documents; Incorporation by Reference. (a) Nothing in this Agreement shall be deemed

to amend, or relieve the Authority or the Issuer of their respective obligations under, any Related Document to which it is a party. Conversely, to the extent that the provisions of any Related Document allow the Authority or the Issuer to take certain actions, or not to take certain actions, with regard for example to permitted liens, transfers of assets, maintenance of financial ratios and similar matters, the Authority and the Issuer nevertheless shall be fully bound by the provisions of this Agreement.

(b) Except as provided in subsection (c) of this Section 1.6, all references to other documents shall be deemed to include all amendments, modifications and supplements thereto to the extent such amendment, modification or supplement is made in accordance with the provisions of such document and this Agreement.

(c) All provisions of this Agreement making reference to specific Sections of any Related Document shall be deemed to incorporate such Sections into this Agreement by reference as though specifically set forth herein (with such changes and modifications as may be herein provided) and shall continue in full force and effect with respect to this Agreement notwithstanding payment of all amounts due under or secured by the Related Documents, the termination or defeasance thereof or any amendment thereto or any waiver given in connection therewith, so long as this Agreement is in effect and until all Obligations are paid in full. No amendment, modification, consent, waiver or termination with respect to any of such Sections shall be effective as to this Agreement until specifically agreed to in writing by the parties hereto with specific reference to this Agreement.

ARTICLE TWO

THE CREDIT FACILITY

Section 2.1. Commitment to Lend. During the Credit Period, the Lender agrees, on the terms and conditions set forth in this Agreement, to make non-revolving loans to the Authority and the Issuer pursuant to this Section 2.1 from time to time in amounts such that the aggregate principal amount of Loans by the Lender made hereunder shall not exceed the amount of the Commitment. Within the foregoing limit and subject to the terms and conditions of Section 2.2 hereof, the Authority and the Issuer may borrow under this subsection (a), repay or, to the extent permitted by Section 2.9 hereof, prepay, the Loans during the Credit Period under this subsection (a). No amount of any Loan may be reborrowed once any portion of such Loan is repaid and the Commitment shall not be reinstated with respect to such Loan or otherwise modified by any such prepayments. Each Borrowing shall be made solely for the purpose of providing funds to pay costs of a Project, costs of issuance in connection with this Agreement or any other purpose permitted under the Installment Purchase Agreement.

Section 2.2. Method of Borrowing, Continuing Loans; Account to which Proceeds of Loans to be Credited. (a) In the case of any Borrowing, the Authority and the Issuer shall give the Lender notice in the form of Exhibit B hereto, executed by an Authorized Authority Representative and an Authorized Issuer Representative (a "*Notice of Borrowing*"), and the Authority or the

Issuer shall telephonically confirm the Lender's receipt of such Notice of Borrowing, by not later than 9:00 a.m. (Pacific time) on any Business Day, specifying:

(i) the date of such Borrowing, which shall be a Business Day during the Credit Period that is at least three (3) Business Days following the Lender's receipt of such Notice of Borrowing;

(ii) the aggregate amount of such Borrowing, which shall not exceed the difference between (A) the amount of the Commitment and (B) the aggregate principal amount of Loans then outstanding; and

(iii) that the following items are attached and delivered to Note Counsel, a tax certificate or supplement to an existing Tax Certificate, including a completed Form 8038-G, relating to such Borrowing, in each case in a form acceptable to Note Counsel.

(b) Subject to the provisions of subsection (a) of this Section 2.2, by not later than 12:30 p.m. (Pacific time) on the date of each Borrowing, the Lender shall, subject to satisfaction of the requirements of this Section 2.2 and Article III hereof, wire transfer, in federal or other immediately available funds, the proceeds of such Borrowing to the Authority on the Borrowing date specified in the Notice of Borrowing, so long as such Borrowing date occurs during the Credit Period and is at least three (3) Business Days following the Lender's receipt of such Notice of Borrowing, as specified in such Notice of Borrowing, in immediately available funds, an amount equal to the Loan thereby requested. The Lender shall wire transfer, in federal or other immediately available funds, the proceeds of such Borrowing to the following account: Account Name: _____, Bank Name:_____, ABA Number: _____, Account Number: _____; *provided, however,* that the Authority may, from time to time, change such account by written notice to the Lender, executed by an Authorized Authority Representative, given to the Lender at its address referred to in Section 7.2 hereof. Notwithstanding the foregoing, in the event such Notice of Borrowing is received by the Lender after 9:00 a.m. (Pacific time) on the Business Day which is three (3) Business Days immediately prior to the day of the proposed borrowing, the Lender shall be required to make the related Borrowing by 12:30 p.m. (Pacific time) on the fourth (4th) Business Day after receipt of the related Notice of Borrowing.

(c) The Lender shall not be obligated to honor more than two Borrowings during any thirty (30) day period.

(d) Each Loan shall be in the principal amount requested by the Authority pursuant to each notice in the form of Exhibit B hereto but in any event in a minimum principal amount of $1,000,000 or such greater amount which is an integral multiple of $250,000 in excess thereof.

Section 2.3. Maturity of Loans and Term Loans. (a) Each Loan included in any Borrowing shall mature, and the principal amount thereof (together with all accrued and unpaid interest therein) shall be due and payable by the Authority and the Issuer on the Facility Maturity Date or such earlier date on which all Loans or the related Loans become due and payable in accordance with the terms hereof.

(b) The Term Loans shall mature, and the principal amount thereof (together with all accrued and unpaid interest thereon) shall be due and payable by the Authority and the Issuer on the Amortization End Date or such earlier date on which all Term Loans become due and payable in accordance with the terms hereof.

Section 2.4. Interest Rates. (a) Subject to subsections (c), (d) and (e) below, and Section 2.15 hereof, each Loan (other than a Term Loan) shall bear interest on the outstanding principal amount thereof, for each day from the date such Loan is advanced until it is paid in full, at a rate per annum equal to the Daily SOFR Rate, and such interest shall be payable by the Authority and the Issuer on each Interest Payment Date.

(b) Interest on the Loans and Term Loans is to be excluded from gross income for federal income tax purposes. Interest on other amounts owing hereunder (other than Loans and Term Loans) is to be includable in the Lender's gross income for federal income tax purposes.

(c) The Calculation Agent shall determine the initial Daily SOFR Rate for the initial Loan on the date on which the Lender honors the related Request for Borrowing and makes the funds requested available hereunder. The Calculation Agent shall determine the Daily SOFR Rate on each SOFR Determination Day while each Loan remains unpaid. Interest on each Loan shall accrue each day such Loan is outstanding commencing on and including the date such Loan is advanced by the Lender hereunder until such Loan is paid in full. Notwithstanding the foregoing, with respect to a Loan designated to bear interest with respect to the Daily SOFR Rate that is advanced pursuant to new Borrowing, the rate for such Loan shall be the same rate as for all outstanding Loans bearing interest with respect to the Daily SOFR Rate. The Lender will consolidate all outstanding Loans for administrative purposes.

(d) *Circumstances Affecting Benchmark Availability.* Subject to clause (iii) below, in connection with any request for a SOFR Loan or a conversion to or continuation thereof or otherwise, if for any reason (i) the Calculation Agent or the Lender shall determine (which determination shall be conclusive and binding absent manifest error) that reasonable and adequate means do not exist for ascertaining Daily Simple SOFR pursuant to the definition thereof or (ii) the Lender shall determine (which determination shall be conclusive and binding absent manifest error) that Daily Simple SOFR does not adequately and fairly reflect the cost to the Lender of making or maintaining such Loans. Upon notice thereof by the Lender to the Authority, any obligation of the Lender to make SOFR Loans, and any right of the Authority to convert any Loan to or continue any Loan as a SOFR Loan, shall be suspended (to the extent of the affected SOFR Loans) until the Lender revokes such notice. Upon receipt of such notice, (A) the Authority may revoke any pending request for a borrowing of, conversion to or continuation of SOFR Loans (to the extent of the affected SOFR Loans) or, failing that, the Authority will be deemed to have converted any such request into a request for a borrowing of or conversion to Loans bearing interest at the Alternate Base Rate in the amount specified therein and (B) any outstanding affected SOFR Loans will be deemed to have been converted into Loans bearing interest at the Alternate Base Rate immediately. Upon any such repayment or conversion, the Authority shall also pay accrued interest on the amount so repaid or converted, together with any additional amounts required pursuant to Section 2.06.

(ii) *Laws Affecting SOFR Availability*. If, after the date hereof, the introduction of, or any change in, any Applicable Law or any change in the interpretation or administration thereof by any Governmental Authority, central bank or comparable agency charged with the interpretation or administration thereof, or compliance by the Calculation Agent or the Lender with any request or directive (whether or not having the force of law) of any such Governmental Authority, central bank or comparable agency, shall make it unlawful or impossible for the Lender to honor its obligations hereunder to make or maintain any SOFR Loan, or to determine or charge interest based upon SOFR, Daily Simple SOFR, the Calculation Agent shall promptly give notice to the Authority (an "*Illegality Notice*"). Thereafter, until the Lender notifies the Authority that the circumstances giving rise to such determination no longer exist, any obligation of the Lender to make SOFR Loans, and any right of the Authority to continue any SOFR Loan, shall be suspended. Upon receipt of an Illegality Notice, the Authority shall, if necessary to avoid such illegality, upon demand from the Lender, prepay or, if applicable, convert all SOFR Loans to Alternate Base Rate Loans, on the Interest Payment Date therefor, if the Lender may lawfully continue to maintain such SOFR Loans to such day, or immediately, if the Lender may not lawfully continue to maintain such SOFR Loans to such day. Upon any such prepayment or conversion, the Authority shall also pay accrued interest on the amount so prepaid or converted, together with any additional amounts required pursuant to Section 2.06.

(iii) *Benchmark Replacement Setting.*

(A) *Benchmark Replacement.* Notwithstanding anything to the contrary herein or in any other Related Document, upon the occurrence of a Benchmark Transition Event, the Lender and the Authority may amend this Agreement to replace the then-current Benchmark with a Benchmark Replacement. Any such amendment with respect to a Benchmark Transition Event will become effective at 5:00 p.m. on the fifth (5^{th}) Business Day after the Lender has provided such proposed amendment to the Authority. No replacement of a Benchmark with a Benchmark Replacement pursuant to this Section 2.11(c)(i)(A) will occur prior to the applicable Benchmark Transition Start Date.

(B) *Benchmark Replacement Conforming Changes*. In connection with the use, administration, adoption or implementation of a Benchmark Replacement, the Lender will have the right to make Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Related Document, any amendments implementing such Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Related Document.

(C) *Notices; Standards for Decisions and Determinations*. The Lender will promptly notify the Authority of (1) the implementation of any Benchmark Replacement and (2) the effectiveness of any Conforming Changes in connection with the use, administration, adoption or implementation of a Benchmark Replacement. The Lender will promptly notify the Authority of the removal or reinstatement of any tenor of a Benchmark pursuant to Section 2.11(c)(iv). Any determination, decision or election that may be made by the Lender pursuant to this Section 2.11(c), including any determination

with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection, will be conclusive and binding absent manifest error and may be made in its or their sole discretion and without consent from any other party to this Agreement or any other Related Document, except, in each case, as expressly required pursuant to this Section 2.11(c).

(D) *Unavailability of Tenor of Benchmark*. Notwithstanding anything to the contrary herein or in any other Related Document, at any time (including in connection with the implementation of a Benchmark Replacement), (A) if the then-current Benchmark is a term rate and either (1) any tenor for such Benchmark is not displayed on a screen or other information service that publishes such rate from time to time as selected by the Lender in its reasonable discretion or (2) the regulatory supervisor for the administrator of such Benchmark has provided a public statement or publication of information announcing that any tenor for such Benchmark is not or will not be representative, then the Lender may modify this Agreement for any Benchmark settings at or after such time to remove such unavailable or non-representative tenor and (B) if a tenor that was removed pursuant to clause (A) above either (1) is subsequently displayed on a screen or information service for a Benchmark (including a Benchmark Replacement) or (2) is not, or is no longer, subject to an announcement that it is not or will not be representative for a Benchmark (including a Benchmark Replacement), then the Lender may modify this Agreement for all Benchmark settings at or after such time to reinstate such previously removed tenor.

(E) *Benchmark Unavailability Period*. Upon the Authority's receipt of notice of the commencement of a Benchmark Unavailability Period, (A) the Authority may revoke any pending request for a borrowing of, conversion to or continuation of SOFR Loans to be made, converted or continued during any Benchmark Unavailability Period and, failing that, the Authority will be deemed to have converted any such request into a request for a borrowing of or conversion to Alternate Base Rate Loans and (B) any outstanding affected SOFR Loans will be deemed to have been converted to Alternate Base Rate Loans immediately.

(F) *Approving Opinion of Note Counsel*. The Authority and the Issuer shall cause an Approving Opinion of Note Counsel to be delivered each time a new Benchmark Replacement is determined for calculation of the interest rate with respect to the Loans.

(e) Upon a Determination of Taxability, all Loans and Term Loans shall bear interest at the Taxable Rate.

(f) Subject to Section 2.15 hereof, the Term Loans shall bear interest on the outstanding principal amount thereof, for each date from the date of extension of such Term Loan until it becomes due, at a rate per annum equal to the Lender Rate. Such interest shall be payable by the Authority and the Issuer on each Interest Payment Date and on the Amortization End Date (or such earlier date on which all Term Loans become due and payable in accordance with the terms hereof).

Section 2.5. Fees. (a) The Authority and the Issuer hereby agree to pay and perform their obligations provided for in the Fee Agreement, including the payment by the Authority and the Issuer to the Lender of the nonrefundable Commitment Fees and the other fees, expenses and payments described in the Fee Agreement at the times, on the dates and in the amounts specified in the Fee Agreement, the terms of such Fee Agreement being incorporated herein by reference as if fully set forth herein. Any references herein or in any other document to the Commitment Fee and such other fees, expenses and payments owed to the Lender hereunder without specific reference to the Fee Agreement shall be read so as to include the Fee Agreement, and any reference to this Agreement shall be deemed to include a reference to the Fee Agreement. The Fee Agreement and this Agreement shall be construed as one agreement among the Authority, the Issuer and the Lender and all obligations under the Fee Agreement shall be construed as obligations hereunder.

(b) If the Authority or the Issuer shall fail to pay any amount payable hereunder and/or under the Fee Agreement as and when due, each such unpaid amount shall bear interest for each day from and including the date it was due until paid in full at the applicable Default Rate and shall be payable by the Authority and the Issuer on demand.

(c) The Authority and the Issuer shall pay within thirty (30) days after demand any amounts advanced by or on behalf of the Lender to the extent required to cure any Default, Event of Default or event of nonperformance hereunder or any Related Document, together with interest at the Default Rate.

Section 2.6. The Note. (a) All Loans and Term Loans shall be made against and evidenced by the Note. All Loans and Term Loans and all payments and prepayments on account of the principal of and interest on each Loan and Term Loan shall be recorded by the Lender on its books and records, which books and records shall, absent manifest error, be conclusive as to amounts payable by the Authority and the Issuer hereunder and under the Note.

(b) The Authority's and the Issuer's obligations to repay each Loan and Term Loan and to pay interest thereon as provided herein shall be evidenced and secured by the Note, and the Authority and the Issuer shall pay amounts under the Note on each date on which the Authority and the Issuer are required to make a principal payment on the related Loan or Term Loan, as applicable, in an amount equal to the related Loan or Term Loan, as applicable, payment due on such date. The payment of the principal of and interest on the Note shall constitute payment of the principal of and interest on the related Loan or Term Loan, as applicable, and the payment of the principal of and interest on the related Loan or Term Loan, as applicable, shall constitute the payment of principal and interest on the Note and the failure to make any payment on any Loan or Term Loan, as applicable, when due shall be a failure to make a payment on the Note and the failure to make any payment on the Note when due shall be a failure to make a payment on the related Loan or Term Loan, as applicable.

Section 2.7. Optional Termination or Reduction of Commitment. During the Credit Period, the Authority and the Issuer may, upon at least three (3) Business Days' written notice to the Lender, (i) terminate the Commitment at any time, if no Loans are outstanding at such time, or (ii) reduce the Commitment from time to time by an aggregate amount of $1,000,000 or any larger

integral multiple of $100,000, *provided*, that, after giving effect to such reduction of the Commitment, the Commitment shall be not less than the amount of the aggregate outstanding principal amount of the Loans.

Section 2.8. Mandatory Termination or Reduction of Commitment. (a) The Commitment shall terminate on the Termination Date, and any Loans then outstanding (together with accrued interest thereon and all other amounts payable hereunder) shall be due and payable by the Authority and the Issuer on such date, unless such Loans are converted to Term Loans as provided in Section 2.22 hereof.

(b) If at any time an Event of Default shall have occurred and be continuing, the Lender may deliver a written notice to that effect to the Authority and the Issuer, and the Commitment shall immediately terminate.

(c) In the event and on such occasion that the principal amount of Loans exceeds the Commitment, the Authority and the Issuer shall prepay the Loans in an aggregate amount equal to such excess.

Section 2.9. Optional Prepayments. The Authority and the Issuer may, upon at least ten (10) Business Days' prior written notice to the Lender, prepay any Borrowing in whole at any time, or from time to time in part in amounts aggregating $1,000,000 or any larger integral multiple of $50,000, by paying the principal amount to be prepaid together with accrued interest thereon to the date of prepayment.

Section 2.10. General Provisions as to Payments. The Authority and the Issuer shall make each payment of the principal of, and interest on, the Loans and Term Loans and of fees hereunder and under the Fee Agreement, not later than 1:00 p.m. (Pacific time) on the date when due, in federal or other funds immediately available in Los Angeles, to the Lender at the Payment Account.

Section 2.11. Computation of Interest and Fees. Interest with respect to Daily SOFR Rate Loans and fees shall be calculated on the basis of a 360-day year based upon the actual number of days elapsed and interest with respect to Alternate Rate Loans and Term Loans shall be calculated on the basis of a 365 or 366 day year, as applicable, and the actual number of days elapsed.

Section 2.12. Funding Indemnity. With respect to each Benchmark Replacement, if the Lender shall incur any loss, cost or expense (including, without limitation, any loss, cost or expense incurred by reason of the liquidation or re-employment of deposits or other funds acquired by the Lender to make any Loan or the relending or reinvesting of such deposits or amounts paid or prepaid to the Lender) as a result of:

(i) any payment, prepayment or conversion of any Loan on a date other than the last day of its Interest Period,

(ii) any failure (because of a failure to meet the conditions of Section 3.2 hereof or otherwise) by the Authority and the Issuer to borrow or continue a Loan, on the date specified in a notice given pursuant to Section 2.2(a) hereof,

(iii) any failure by the Authority and the Issuer to make any payment of principal on any Loan when due (whether by acceleration or otherwise), or

(iv) any acceleration of the maturity of a Loan as a result of the occurrence of any Event of Default hereunder,

then, upon the demand of the Lender, the Authority and the Issuer shall pay to the Lender such amount as will reimburse the Lender for such loss, cost or expense. If the Lender makes such a claim for compensation, it shall provide to the Authority and the Issuer a certificate setting forth the amount of such loss, cost or expense in reasonable detail and the amounts shown on such certificate shall be conclusive and binding on the Authority and the Issuer absent manifest error.

Section 2.13. Determination of Taxability. (i) In the event a Determination of Taxability occurs, the Authority and the Issuer hereby agree to pay to the Lender and each Noteholder within thirty (30) days of demand therefor (1) an amount equal to the difference between (A) the amount of interest that would have been paid to the Lender and such Noteholder on the Note, Loan or Term Loan during the period for which interest on the such Note, Loan or Term Loan is included in the gross income of the Lender and such Noteholder if the Note, Loan or Term Loan had borne interest at the Taxable Rate, beginning on the Taxable Date (the *"Taxable Period"*), and (B) the amount of interest actually paid to the Lender and such Noteholder during the Taxable Period, and (2) an amount equal to any interest, penalties or charges owed by the Lender and such Noteholder as a result of interest on the Note, Loan or Term Loan becoming included in the gross income of the Lender and such Noteholder, together with any and all reasonable attorneys' fees, court costs, or other reasonable out-of-pocket costs incurred by the Lender and such Noteholder in connection therewith;

(ii) Subject to the provisions of clause (iii) below, the Lender and such Noteholder shall afford the Authority and the Issuer the opportunity, at the Authority's and the Issuer's sole cost and expense, to contest (1) the validity of any amendment to the Internal Revenue Code which causes the interest on the Note, Loan or Term Loan to be included in the gross income of Lender and such Noteholder or (2) any challenge to the validity of the tax exemption with respect to the interest on the Note, Loan or Term Loan, including the right to direct the necessary litigation contesting such challenge (including administrative audit appeals); *provided* that, in no event shall the Lender or a Noteholder be required to make available its tax returns (or any other information relating to its taxes that it deems confidential) to the Authority and the Issuer or any other Person; and

(iii) As a condition precedent to the exercise by the Authority and the Issuer of its right to contest set forth in clause (ii) above, the Authority and the Issuer shall, upon reasonable demand, within thirty (30) days, reimburse the Lender and such Noteholder for any and all reasonable expenses (including reasonable attorneys' fees for services that may be required or desirable, as

determined by the Lender and such Noteholder in its reasonable discretion) that may be incurred by the Lender and such Noteholder in connection with any such contest, and shall, within thirty (30) days from demand, reimburse Lender and such Noteholder for any and all penalties or other charges payable by the Lender or such Noteholder for failure to include such interest in its gross income.

(iv) Without prejudice to the survival of any other agreement of the Authority and the Issuer hereunder, the agreements and obligations of the Authority and the Issuer contained in this Section 2.13 shall survive the termination of this Agreement and the payment in full of the Obligations of the Authority and the Issuer thereunder and hereunder.

Section 2.14. Payment Due on Non-Business Day to Be Made on Next Business Day. If any sum becomes payable pursuant to this Agreement or the Fee Agreement on a day which is not a Business Day, the date for payment thereof shall be extended, without penalty, to the next succeeding Business Day, and such extended time shall be included in the computation of interest and fees.

Section 2.15. Default Rate. Upon the occurrence and during the continuance of an Event of Default, all Obligations payable hereunder (for avoidance of doubt, excluding any fees which are not yet due and payable) shall bear interest until paid in full at a rate per annum equal to the Default Rate.

Section 2.16. Net of Taxes, Etc. (a) Any and all payments to the Lender or any Noteholder by the Authority and the Issuer hereunder or with respect to the Loans and Term Loans shall be made free and clear of and without deduction or withholding for any and all Indemnified Taxes. If the Authority and the Issuer shall be required by law to deduct or withhold any Indemnified Taxes imposed by the United States of America or any political subdivision thereof from or in respect of any sum payable hereunder or with respect to the Loans and/or Term Loans, then (i) the sum payable shall be increased as may be necessary so that after making all required deductions (including deductions applicable to additional sums payable under this Section 2.16) the Lender or such Noteholder receives an amount equal to the sum it would have received had no such deductions been made, (ii) the Authority and the Issuer shall make such deductions and (iii) the Authority shall timely pay the full amount deducted to the relevant taxation authority or other authority in accordance with applicable law. If the Authority and the Issuer shall make any payment under this Section 2.16 to or for the benefit of the Lender or such Noteholder with respect to Indemnified Taxes and if the Lender or such Noteholder shall claim any credit or deduction for such Indemnified Taxes against any other taxes payable by the Lender or such Noteholder to any taxing jurisdiction in the United States of America then the Lender or such Noteholder shall pay to the Authority and the Issuer an amount equal to the amount by which such other taxes are actually reduced; *provided*, that the aggregate amount payable by the Lender or such Noteholder pursuant to this sentence shall not exceed the aggregate amount previously paid by the Authority and the Issuer with respect to such Indemnified Taxes. In addition, the Authority and the Issuer agree to pay any present or future stamp, recording or documentary taxes and any other excise or property taxes, charges or similar levies that arise under the laws of the United States of America or any state of the United States from any payment made hereunder or under the Loans, the Term Loans or from the execution or delivery of this Agreement or the Note, or otherwise with respect

to this Agreement, the Loans or the Term Loans (hereinafter referred to as *"Other Taxes"*). The Lender or such Noteholder shall provide to the Authority and the Issuer within a reasonable time a copy of any written notification it receives with respect to Indemnified Taxes or Other Taxes owing by the Authority and the Issuer to the Lender or such Noteholder hereunder; *provided,* that the Lender or such Noteholder's failure to send such notice shall not relieve the Authority of its obligation to pay such amounts hereunder. The Authority and the Issuer may conduct a reasonable contest of any such Indemnified Taxes with the prior written consent of the Lender, which consent shall not be unreasonably withheld or delayed; *provided*, that the Authority and the Issuer shall, on demand, immediately reimburse the Lender for any and all expenses (including attorneys' fees for services that may be required or desirable, as determined by the Lender in its sole discretion) that may be incurred by the Lender in connection with any such contest.

(b) The Authority and the Issuer shall, to the fullest extent permitted by law and subject to the provisions hereof, pay the Lender or such Noteholder for the full amount of Indemnified Taxes and Other Taxes including any Indemnified Taxes or Other Taxes imposed by any jurisdiction on amounts payable under this Section 2.16 paid by the Lender or such Noteholder or any liability (including penalties, interest and expenses) arising therefrom or with respect thereto whether or not such Indemnified Taxes or Other Taxes were correctly or legally asserted; *provided*, that the Authority and the Issuer shall not be obligated to pay the Lender or such Noteholder for any penalties, interest or expenses relating to Indemnified Taxes or Other Taxes arising from the Lender or such Noteholder's gross negligence or willful misconduct. The Lender or such Noteholder agrees to give notice to the Authority and the Issuer of the assertion of any claim against the Lender or such Noteholder relating to such Indemnified Taxes or Other Taxes as promptly as is practicable after being notified of such assertion; *provided,* that the Lender or such Noteholder's failure to notify the Authority and the Issuer promptly of such assertion shall not relieve the Authority of its obligation under this Section 2.16. Payments by the Authority and the Issuer pursuant to this Section 2.16 shall be made within thirty (30) days from the date the Lender or such Noteholder makes written demand therefor, which demand shall be accompanied by a certificate describing in reasonable detail the basis thereof. The Lender or such Noteholder agrees to repay to the Authority and the Issuer any refund (including that portion of any interest that was included as part of such refund) with respect to Indemnified Taxes or Other Taxes paid by the Authority and the Issuer pursuant to this Section 2.16 received by the Lender or such Noteholder for Indemnified Taxes or Other Taxes that were paid by the Authority and the Issuer pursuant to this Section and to contest, with the cooperation and at the expense of the Authority and the Issuer, any such Indemnified Taxes or Other Taxes which the Lender or such Noteholder or the Authority and the Issuer reasonably believe not to have been properly assessed.

(c) Within thirty (30) days after the date of any payment of Indemnified Taxes by the Authority and the Issuer, the Authority and the Issuer shall furnish to the Lender the original or a certified copy of a receipt evidencing payment thereof.

(e) The obligations of the Authority and the Issuer under this Section 2.16 shall survive the termination of this Agreement and the repayment of all Obligations hereunder.

Section 2.17. Increased Costs.

(a) *Increased Costs Generally*. If any Change in Law shall:

(i) impose, modify or deem applicable any reserve, liquidity ratio, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or advances, loans or other credit extended or participated in by, the Lender or any Recipient;

(ii) subject any Recipient to any Taxes of any kind whatsoever with respect to this Agreement, or change the basis of taxation of payments to the Lender or such Recipient in respect thereof (except for Indemnified Taxes covered by Section 2.16 hereof and the imposition of, or any change in the rate of any Excluded Tax payable by the Lender or any Recipient); or

(iii) impose on the Lender or any Recipient any other condition, cost or expense affecting this Agreement or the Fee Agreement or any participation therein;

and the result of any of the foregoing shall be to increase the cost to the Lender or such Recipient related to issuing or maintaining this Agreement, the Commitment or any Loan or Term Loan, or to reduce the amount of any sum received or receivable by the Lender or such Recipient hereunder (whether of principal, interest or any other amount) then, upon written request of the Lender, the Authority and the Issuer shall promptly pay to the Lender (for the Lender or such Recipient, as the case may be) such additional amount or amounts as will compensate the Lender or such Recipient, as the case may be, for such additional costs incurred or reduction suffered.

(b) *Capital Requirements*. If the Lender or any Recipient determines that any Change in Law affecting the Lender or such Recipient or the Lender's or such Recipient's parent or holding company, if any, regarding capital or liquidity requirements, has or would have the effect of reducing the rate of return on the Lender's or such Recipient's capital or liquidity or the capital or liquidity of such Lender's or such Recipient's parent or holding company holding, if any, as a consequence of this Agreement, or for maintaining this Agreement, the Commitment or any Loan or Term Loan, to a level below that which the Lender or such Recipient or the Lender's or such Recipient's parent or holding company could have achieved but for such Change in Law (taking into consideration the Lender's or such Recipient's policies and the policies of the Lender's or such Recipient's parent or holding company with respect to capital or liquidity adequacy), then from time to time upon written request of the Lender the Authority and the Issuer shall promptly pay to the Lender (for the Lender or such Recipient, as the case may be) such additional amount or amounts as will compensate the Lender or such Recipient or the Lender's or such Recipient's parent or holding company for any such reduction suffered.

(c) *Certificates for Reimbursement*. A certificate of the Lender or a Recipient setting forth the amount or amounts necessary to compensate the Lender or any such Recipient or the Lender's or any such Recipient's parent or holding company, as the case may be, as specified in paragraph (a) or (b) of this Section and delivered to the Authority and the Issuer, shall be conclusive absent manifest error. The Authority and the Issuer shall pay the Lender or any such Recipient, as the case may be, the amount shown as due on any such certificate within thirty (30) days after receipt thereof. Each Recipient shall have the benefits of this Section 2.17, but

shall not be entitled to receive any greater payment under such Section than the Lender would have been entitled to receive in connection with the rights transferred. The benefits of this Section 2.17 shall be available to the Lender's parent or holding company and each Noteholder's parent or holding company, to the extent that the events described herein, creating increased costs, affect the Lender's parent or holding company or such Noteholder's holding company.

(d) *Delay in Requests*. Failure or delay on the part of the Lender or any such Recipient to demand compensation pursuant to the foregoing provisions of this Section shall not constitute a waiver of the Lender's right to demand such compensation.

(e) *Survival*. The obligations of the Authority and the Issuer under this Section 2.17 shall survive the termination of this Agreement and the repayment of all Obligations hereunder.

Section 2.18. Margin Regulations. No portion of the proceeds of any Loans or Term Loans shall be used by the Authority and the Issuer (or the Depositary or any other Person on behalf of the Authority and the Issuer) for the purpose of "purchasing" or "carrying" any margin stock or used in any manner which might cause the borrowing or the application of such proceeds to violate Regulation U, Regulation T, or Regulation X of the Board of Governors of the Federal Reserve System or any other regulation of said Board of Governors or to violate the Securities Exchange Act of 1934, as amended, in each case as in effect on the date or dates of such Loans or Term Loans and such use of proceeds.

Section 2.19. Maximum Rate; Payment of Fee. Anything in this Agreement to the contrary notwithstanding, if the rate of interest due hereunder shall exceed the Maximum Rate for any period for which interest is payable, then (i) interest at the Maximum Rate shall be due and payable with respect to such interest period and (ii) interest at the rate equal to the difference between (A) the rate of interest calculated in accordance with the terms hereof without regard to the Maximum Rate and (B) the Maximum Rate (the "*Excess Interest*"), shall be deferred until such date as the rate of interest calculated in accordance with the terms hereof ceases to exceed the Maximum Rate, at which time the Authority and the Issuer shall pay to the Lender, with respect to amounts then payable to the Lender that are required to accrue interest hereunder, such portion of the deferred Excess Interest as will cause the rate of interest then paid to the Lender to equal the Maximum Rate, which payments of deferred Excess Interest shall continue to apply to such unpaid amounts hereunder until all deferred Excess Interest is fully paid to the Lender. Upon the termination of the Commitment and/or this Agreement, in consideration for the limitation of the rate of interest otherwise payable hereunder, the Authority and the Issuer shall pay to the Lender a fee equal to the amount of all unpaid deferred Excess Interest.

Section 2.20. Security for Obligations and Pledge. Under the Payment Agreements, subject to Sections 5.1(p) and 5.2(p) hereof, the Authority and the Issuer shall cause the Project Participants to pay their Allocated Share (as defined in the related Payment Agreement) of Debt Service (as defined in the related Payment Agreement) from Purchaser Revenues under the Payment Agreements. To secure the payment of all Obligations hereunder and under the Fee Agreement, the Authority and the Issuer hereby irrevocably grant to the Lender a first priority pledge of, charge on, and lien upon all Revenues. It is hereby acknowledged and agreed that the pledge of, charge and lien on all Revenues herein provided shall be for the equal and proportionate

benefit and security for the payment of the Obligations and the other Installment Purchase Agreement Parity Debt, all of which shall be of equal rank without preference, priority or distinction as to lien or otherwise. The pledge of, charge and lien on hereby granted in all Revenues shall remain effective so long as any amounts may be drawn hereunder or any Obligations remain outstanding under this Agreement. No filing, registration, recording or publication of this Agreement, the Installment Purchase Agreement or any other instrument or Related Document is required to establish the pledge provided for thereunder or hereunder or to perfect, protect or maintain the pledge of, charge and lien created thereby on the Revenues to secure the payment of the Obligations in full. The pledge of all Revenues herein constitutes a valid pledge of and charge and lien upon all Revenues, has attached and is effective, binding, and enforceable against the Authority and the Issuer, their successors, purchasers of any of the Revenues, creditors, and all others asserting rights therein, irrespective of whether those parties have notice of the lien on, security interest in and pledge of the Revenues and without the need for any physical delivery, recordation, filing or further act.

Section 2.21. Method of Payment; Etc. All payments to be made by, or on behalf of, the Authority and the Issuer under this Agreement and the Fee Agreement shall be made at the Payment Account not later than 1:00 P.M. (Pacific time) on the date when due and shall be made in lawful money of the United States of America in freely transferable and immediately available funds. All payments received by the Lender after 1:00 P.M. (Pacific time) shall be deemed to have been made on the next succeeding Business Day and any applicable interest or fees shall continue to accrue.

Section 2.22. Term Loans.

(a) *Generally.* (i) On the Facility Maturity Date, so long as (A) the Authority and the Issuer shall have delivered to the Lender a written request in the form of Exhibit C hereto no later than thirty (30) days prior to the Facility Maturity Date, (B) immediately before and as a result of giving effect to such conversion, no Default or Event of Default shall have occurred and be continuing on the Facility Maturity Date, or would result from the making of any Term Loan, (C) the representations and warranties of the Authority and the Issuer set forth in Article Four hereof are true and correct in all material respects as if made as of the Facility Maturity Date and (D) the Lender shall not have terminated its obligation to make Term Loans as a result of an Event of Default pursuant to Section 6.2(b) hereof, the Loans, if any, maturing on such date shall be automatically converted to term loans (each a *"Term Loan"* and collectively the *"Term Loans"*), the proceeds of which shall be deemed to have refunded the Loans. Notwithstanding anything to the contrary contained herein, in the event that on the Facility Maturity Date, any of the conditions precedent set forth in the immediately preceding sentence are not satisfied, all Loans will be due and payable by the Authority and the Issuer in full on the Facility Maturity Date.

(ii) The Term Loans shall be evidenced by the Note. The Term Loans may be repaid in whole or in part on any Business Day upon prior written notice from the Authority and the Issuer to the Lender.

(b) *Repayment.* The Authority and the Issuer shall pay to the Lender the outstanding principal amount of the Term Loans in equal (as nearly as possible) installments on each

Amortization Payment Date and on the Amortization End Date; *provided, however,* that, notwithstanding anything contained herein to the contrary, the entire principal amount of the Term Loans, plus accrued and unpaid interest thereon, shall be due and payable in full on the Amortization End Date (or such earlier date on which all Term Loans become due and payable in accordance with the terms hereof).

ARTICLE THREE

CONDITIONS PRECEDENT

Section 3.1. Conditions Precedent to the Effectiveness of this Agreement. As conditions precedent to the obligation of the Lender to establish the Commitment and execute and deliver this Agreement, the Authority and the Issuer shall provide to the Lender on the Closing Date, each in form and substance satisfactory to the Lender and its counsel, Chapman and Cutler LLP (hereinafter, "*Lender's Counsel"*):

(a) *Approvals*. (i) The Lender shall have received an executed counterpart of this Agreement duly executed by the Authority, the Issuer and the Lender, an executed counterpart of the Fee Agreement duly executed by the Authority, the Issuer and the Lender, an executed original of the Note, and executed copies of the other Related Documents. (ii) The Lender shall have received copies of all action taken by the Authority (including, without limitation, any resolution adopted or passed by the Authority in connection therewith) approving the execution and delivery by the Authority of this Agreement, the Fee Agreement and the other Related Documents, in each case, certified by an authorized official of the Authority as complete and correct as of the date hereof. (iii) The Lender shall have received copies of all action taken by the Issuer (including, without limitation, any resolution adopted or passed by the Issuer in connection therewith) approving the execution and delivery by the Issuer of this Agreement, the Fee Agreement, the Note and the other Related Documents to which the Issuer is a party, in each case, certified by an authorized official of the Issuer as complete and correct as of the date hereof.

(b) *Incumbency of Officials*. (i) The Lender shall have received an incumbency certificate of the Authority in respect of each of the officials who is authorized to (a) sign this Agreement, the Fee Agreement, the other Related Documents on behalf of the Authority and (b) take actions for the Authority under this Agreement, the Note, and the Related Documents. (ii) The Lender shall have received an incumbency certificate of the Issuer in respect of each of the officials who is authorized to (a) sign this Agreement, the Note, the Fee Agreement and the other Related Documents to which the Issuer is a party on behalf of the Issuer and (b) take actions for the Issuer under this Agreement and the other Related Documents.

(c) *Opinion of Note Counsel*. The Lender shall have received an opinion addressed to the Lender and dated the Closing Date of Note Counsel as to the due authorization, execution and delivery of this Agreement and the Notes and as to the validity and enforceability with respect to the Authority of this Agreement, the Note and the other Related Documents, the pledge of and lien on the Revenues securing the Note and the

Obligations constituting a valid pledge, and such other matters as the Lender may reasonably request, in form and substance satisfactory to the Lender and its counsel.

(d) *Opinions of Counsel to the Authority and Issuer; Opinions of Counsel to the Project Participants*. (i) The Lender shall have received an opinion addressed to the Lender and dated the Closing Date of the general counsel for the Authority, in form and substance satisfactory to the Lender, and addressing (A) the Authority's existence, (B) the Authority's power and authority to enter into this Agreement, the Fee Agreement and the other Related Documents to which it is a party and to perform its obligations hereunder and thereunder, (C) the Authority's execution and delivery of this Agreement, the Fee Agreement and the other Related Documents to which it is a party, (D) the enforceability of the Authority's obligations under this Agreement, the Fee Agreement and the other Related Documents to which it is a party, (E) that the Authority has obtained all consents necessary to execute, deliver and perform this Agreement, the Fee Agreement and the other Related Documents to which it is a party, (F) the execution and delivery of this Agreement, the Fee Agreement and the other Related Documents to which it is a party by the Authority will not violate any law, order or agreement to which the Authority is subject or to which the Authority is a party, and (G) there is no litigation pending or threatened against the Authority that would prevent the Authority from executing and delivering this Agreement, the Fee Agreement and the other Related Documents to which it is a party or performing its obligations hereunder and thereunder.

(ii) The Lender shall have received an opinion addressed to the Lender and dated the Closing Date of the general counsel for the Issuer, in form and substance satisfactory to the Lender, and addressing (A) the Issuer's existence, (B) the Issuer's power and authority to enter into this Agreement, the Fee Agreement and the other Related Documents to which it is a party and to perform its obligations hereunder and thereunder, (C) the Issuer's execution and delivery of this Agreement, the Fee Agreement, the Note and the other Related Documents to which it is a party, (D) the enforceability of the Issuer's obligations under this Agreement, the Fee Agreement, the Note and the other Related Documents to which it is a party, (E) that the Issuer has obtained all consents necessary to execute, deliver and perform this Agreement, the Fee Agreement, the Note and the other Related Documents to which it is a party, (F) the execution and delivery of this Agreement, the Fee Agreement, the Note and the other Related Documents to which it is a party by the Issuer will not violate any law, order or agreement to which the Issuer is subject or to which the Issuer is a party, and (G) there is no litigation pending or threatened against the Issuer that would prevent the Issuer from executing and delivering this Agreement, the Fee Agreement, the Note and the other Related Documents to which it is a party or performing its obligations hereunder and thereunder.

(iii) The Lender shall have received an opinion addressed to the Lender and dated the Closing Date of the counsel for each Project Participant, in form and substance satisfactory to the Lender, and addressing, without limitation, the enforceability of such Project Participant's obligations under the Related Documents to which it is a party.

(e) *Related Documents*. **[(i)]** The Lender shall have received a certified copy of the Related Documents which have been executed prior to the Closing Date, all certified by an authorized officer of the Authority or the Issuer, as applicable, as being in full force and effect**[; and (ii) the Lender shall have received evidence that the payment schedule set forth in Exhibit A to each Payment Agreement has been modified to include the Notes and a related payment schedule acceptable to the Lender in form and substance satisfactory to the Lender and its counsel]**.

(f) *Financial Information*. The Lender shall have received copies of any financial information of the Authority, the Issuer, LVMWD and TWSD that the Lender may reasonably request.

(g) *Legality; Material Adverse Change*. The Lender shall have determined (in its sole discretion) that (i) neither the making of any Loans nor the consummation of any of the transactions contemplated by the Note, this Agreement or any other Related Document will violate any law, rule, guideline or regulation applicable to the Authority, the Issuer, the Lender, LVMWD, TWSD, the Commitment, the Note or this Agreement, and (ii) no Material Adverse Change shall have occurred since June 30, 2025.

(h) *Fees, Etc*. The Lender shall have received payment of the fees, costs and expenses payable on the Closing Date.

(i) *Note.* The Lender shall have received (i) the executed Note in physical, definitive certificated form and (ii) written evidence satisfactory to the Lender that a CUSIP number has been obtained and reserved from Standard & Poor's CUSIP Service for the Note.

(j) *Closing Certificate of Authority.* The Lender shall have received a certificate from the Authority executed by the Authorized Authority Representative, dated the Closing Date, stating that:

(i) the representations and warranties of the Authority contained in this Agreement and each certificate furnished or delivered by the Authority to the Lender pursuant hereto are true and correct on and as of the Closing Date as though made on and as of such date;

(ii) no "default" or "event of default" under any Related Document to which the Authority is a party and no Default or Event of Default has occurred and is continuing or would result from the entering into or performance under this Agreement, and the other Related Documents; and

(iii) except as has been disclosed to the Lender in writing prior to the Closing Date, there has been no Material Adverse Change since June 30, 2025.

(k) *Closing Certificate of Issuer*. The Lender shall have received a certificate from the Issuer executed by the Authorized Issuer Representative, dated the Closing Date, stating that:

(i) the representations and warranties of the Issuer contained in this Agreement and each certificate furnished or delivered by the Issuer to the Lender pursuant hereto are true and correct on and as of the Closing Date as though made on and as of such date;

(ii) no "default" or "event of default" under any Related Document to which the Issuer is a party and no Default or Event of Default has occurred and is continuing or would result from the entering into or performance under this Agreement and the other Related Documents; and

(iii) except as has been disclosed to the Lender in writing prior to the Closing Date, there has been no Material Adverse Change since June 30, 2025.

(l) *Other Documents*. The Lender shall have received such other documents, certificates, and opinions as the Lender or the Lender's counsel shall have reasonably requested.

Section 3.2. Borrowings During the Credit Period. The obligation of the Lender to make a Loan on the occasion of any Borrowing on or prior to the Termination Date is subject to the satisfaction of the following conditions:

(a) receipt by the Lender of a Notice of Borrowing (or appropriate notice regarding continuation) as required by Section 2.2 hereof;

(b) immediately after such Borrowing or continuation, the aggregate outstanding principal amount of the Loans will not exceed the amount of the Commitment;

(c) immediately before and as a result of giving effect to such Borrowing or continuation, (i) no Default or Event of Default shall have occurred and be continuing and (ii) no Material Adverse Change shall have occurred;

(d) immediately before and as a result of giving effect to such Borrowing or continuation, all representations and warranties of the Authority and the Issuer as set forth in Article Four hereof shall be true and correct as though made on the date of such Request for Borrowing and on the date of the proposed Borrowing;

(e) immediately before such Borrowing or continuation, the Lender shall not have terminated its obligation to make Loans as a result of an Event of Default pursuant to Section 6.2(b) hereof;

(f) the Lender shall have received an executed opinion of Note Counsel addressed to the Authority and the Issuer and with a reliance letter to the Lender, in a form

acceptable to the Lender, to the effect that the interest on such Loan is excluded from gross income for federal income tax purposes; and

(g) the Authority shall have executed, and the Lender shall have received an executed copy of a tax certificate or supplement to an existing tax certificate, including a completed Form 8038-G, relating to such Borrowing, in each case in a form acceptable to Note Counsel.

Each Borrowing or continuation hereunder shall be deemed to be a representation and warranty by the Authority and Issuer on the date of such Borrowing as to the facts specified in clauses (b), (c) and (d) of this Section 3.2 and that no Default or Event of Default has occurred and is continuing.

Section 3.3. No Rating on Note; No DTC; No Offering Document; No Placement. The Note shall not be (a) assigned a specific rating by any Rating Agency, (b) registered with The Depository Trust Company or any other securities depository, (c) issued pursuant to any type of official statement, private placement memorandum or other offering document or (d) placed or offered by a broker-dealer in the capacity of an underwriter or a placement agent.

ARTICLE FOUR

REPRESENTATIONS AND WARRANTIES

Section 4.1. Representations of the Authority. In order to induce the Lender to establish the Commitment and execute and deliver this Agreement, the Authority represents and warrants to the Lender as follows:

(a) *Existence and Power.* The Authority is a joint exercise of powers agency that is duly organized and existing under and pursuant to the laws of the State of California and the Authority Joint Powers Agreement, and is possessed of full powers to own and lease (as lessor and lessee) real and personal property, to own and operate the Joint System, to conduct its other business as presently conducted and to enter into contracts such as this Agreement and the other Related Documents, which powers have been validly exercised in connection with the transactions effected by this Agreement and the other Related Documents. The Authority has full legal right, power and authority to enter into this Agreement and the other Related Documents and to carry out and consummate all transactions that are contemplated by this Agreement and the other Related Documents and by proper action has duly authorized the execution and delivery and due performance of this Agreement and the other Related Documents.

(b) *Authorization; Contravention; Approvals.* The execution, delivery and performance by the Authority of this Agreement, the Fee Agreement and the other Related Documents and the other documents contemplated hereby and thereby are within the powers of the Authority, have been duly authorized by all necessary actions and (i) do not contravene the Act or any other law, rule, regulation, order, writ, judgment, injunction, decree, determination or award or any indenture, agreement, lease, instrument or other

contractual restriction binding on or affecting the Authority and (ii) except as provided in or contemplated by this Agreement and the Related Documents, do not result in or require the creation of any Lien, security interest or other charge or encumbrance upon or with respect to any asset of the Authority. The Authority is not in violation of or in default in any material respect under any law, rule, regulation, order, writ, judgment, injunction, decree, determination or award that would prevent or is reasonably likely to prevent the Authority from performing its obligations under this Agreement, the Fee Agreement or the other Related Documents. The Authority is not in violation of or in default in any material respect under any indenture, agreement, lease, instrument or other contractual restriction and is not in violation of or in default in any respect under any of the Related Documents that would prevent or is reasonably likely to prevent the Authority from performing its obligations under this Agreement, the Fee Agreement or the other Related Documents. No Default or Event of Default has occurred and is continuing. All orders, consents and other authorizations or approvals of all Governmental Authorities and all other Persons have been obtained (and no additional authorization, approval or other action by, and no notice to or filing or registration with, any Governmental Authority is required to be made or obtained by the Authority) for the due execution, delivery and performance by the Authority of this Agreement and the other Related Documents.

(c) *Enforceability.* This Agreement and the other Related Documents, and other documents contemplated hereby and thereby to which the Authority is a party or by which it is bound, are legally valid and binding obligations of the Authority enforceable against the Authority in accordance with their respective terms, except as such enforceability may be limited by (i) bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally; (ii) general principles of equity; and (iii) the exercise of judicial discretion in appropriate cases.

(d) *Litigation.* Except as disclosed in writing to the Lender prior to the Closing Date, there are no actions, suits, proceedings, inquiries or investigations, at law or in equity, before any court, Governmental Authority or arbitrator pending or, to the best knowledge of the Authority, threatened, against or directly involving the Authority, affecting the existence of the Authority, the title of any officials to their respective offices or affecting or seeking to prohibit, restrain or enjoin the execution or delivery of this Agreement or any Related Document, or in any way contesting or affecting the validity or enforceability of the Note, this Agreement, any other Related Document or contesting the tax-exempt status of the Note, or contesting the powers of the Authority or any authority for the issuance of the Note, the execution and delivery of this Agreement or the other Related Documents, nor, to the best, knowledge of the Authority, is there any basis therefor, which, if determined adversely to the Authority (i) would adversely affect the validity or enforceability of, or the authority or ability of the Authority to perform its obligations under, this Agreement, the Fee Agreement or any other the Related Documents, (ii) would, in the reasonable opinion of the Authority, have a material adverse effect on the business, financial position or results of operations of the Authority, (iii) would adversely affect the exclusion of interest on the Note from gross income for Federal income tax purposes or the exemption of such interest from State of California personal income taxes, or (iv) could otherwise reasonably be expected to result in a Material Adverse Effect.

(e) *Financial Information.* (i) The audited financial statements of the Authority included in the 2025 Financial Statements, true and correct copies of which have heretofore been delivered or made available to the Lender, fairly present, in conformity with generally accepted accounting principles the financial position of the Authority and its results of operations and changes in financial position at the dates and for the periods indicated.

(ii) Except as has been disclosed in writing to the Lender prior to the Closing Date, since June 30, 2025, there has been no material adverse change in the business, financial position or results of operations of the Authority, LVMWD or TWSD which could reasonably be expected to result in a Material Adverse Effect.

(iii) Except as reflected in the financial statements included in the 2025 Financial Statements or as has been disclosed in writing to the Lender prior to the Closing Date and except for the Authority's obligations set forth in this Agreement and the other Related Documents, there are as of the date hereof no liabilities or obligations with respect to the Authority of any nature whatsoever (whether absolute, accrued, contingent or otherwise and whether or not due) which, in the aggregate, would be material to the Authority. The Authority does not know of any basis for the assertion against the Authority of any liability or obligation of any nature whatsoever that is not reflected in the financial statements included in the 2025 Financial Statements or other written disclosure to the Lender delivered prior to the Closing Date which, in the aggregate, could be material to the Authority.

(f) *Disclosure.* No written information furnished by the Authority to the Lender in connection with this Agreement (except information which has been superseded by subsequent information provided by the Authority) includes any untrue statement of a material fact.

(g) *Environmental Matters.* Except as disclosed in writing to the Lender prior to the Closing Date, the Authority has not received notice to the effect that the operations of the Joint System are not in compliance with any of the requirements of applicable Federal, state or local environmental, health and safety statutes and regulations or are the subject of any governmental investigation evaluating whether any remedial action is needed to respond to a release of any toxic or hazardous waste or substance into the environment, in each case which non-compliance or remedial action could have a Material Adverse Effect.

(h) *Plans.* The Authority is not subject to ERISA or maintains no Plan.

(i) *Regulations U and X.* The Authority is not engaged in the business of extending credit for the purpose of purchasing or carrying margin stock (within the meaning of Regulation U or X issued by the Board of Governors of the Federal Reserve System); and no proceeds of any Loans or Term Loans will be used to extend credit to others for the purpose of purchasing or carrying any margin stock.

(j) *Tax-Exempt Status.* The Authority has not taken any action or omitted to take any action, and knows of no action taken or omitted to be taken by any other Person, which action, if taken or omitted, would adversely affect the exclusion of interest on the Note from gross income for Federal income tax purposes or the exemption of such interest from State of California personal income taxes.

(k) *Security.* (i) The Payment Agreements create a pledge of all Purchaser Revenues as security for the installment payments payable under the Installment Payments. The Installment Purchase Agreement creates a pledge of all Revenues as security for the punctual payment of the interest and principal due with respect to the Note and the Obligations owed to the Lender hereunder. All actions necessary to create a pledge of all Purchaser Revenues and the Revenues have been duly and validly taken. The Authority's obligation to pay the Obligations is *pari passu* with its obligation to pay any Installment Purchase Agreement Parity Debt.

(ii) This Agreement constitutes a "Contract" as defined in and for purposes of the Installment Purchase Agreement. Payments of interest and principal on the Obligations as required and scheduled by the terms hereof constitute "Installment Payments" as defined in and for purposes of the Installment Purchase Agreement.

(l) *Constitutional Matters.* There is no amendment, or, to the best knowledge of the Authority, proposed amendment certified for placement on a statewide ballot, to the Constitution of the State of California or any published administrative interpretation of the Constitution of the State of California or any State of California law, or any legislation which has passed either house of the State legislature, or any published judicial decision interpreting any of the foregoing, the effect of which could reasonably be expected to have Material Adverse Effect. There is no public vote or referendum pending, proposed or concluded, the results of which could reasonably be expected result in a Material Adverse Effect.

(m) *No Sovereign Immunity.* The Authority is not entitled to claim immunity on the grounds of sovereignty or other similar grounds (including, without limitation, governmental immunity) with respect to itself or its revenues (irrespective of their use or intended use) from (i) any action, suit or other proceeding arising under or relating to this Agreement or any other Related Document, (ii) relief by way of injunction, order for specific performance or writ of mandamus or for recovery of property or (iii) execution or enforcement of any judgment to which it or Revenues might otherwise be made subject in any action, suit or proceeding relating to this Agreement or any other Related Document, and no such immunity (whether or not claimed) may be attributed to the Authority or Revenues.

(n) *Incorporation of Representations and Warranties by Reference.* The Authority hereby makes to the Lender every representation and warranty made by it in the Related Documents, which representations and warranties, as well as the defined terms contained therein that are necessary for a correct interpretation thereof, are incorporated

herein by this reference with the same effect as if each and every such provision and defined term were set forth herein in its entirety. No amendment, modification, termination or replacement of any such representations, warranties, covenants and definitions contained in the Related Documents shall be effective to amend, modify, terminate or replace the representations, warranties, covenants and definitions incorporated herein by this reference, without the prior written consent of the Lender. The representations and warranties of the Authority in all of the Related Documents are true and correct in all material respects.

(o) *No Violation of Usury Laws.* The terms hereof regarding the calculation and payment of interest on the Note do not violate any applicable usury laws of the State of California and, the terms of this Agreement, the Fee Agreement, and the Note regarding the calculation and payment of interest and fees and other amounts due under this Agreement, the Fee Agreement, and the Note do not violate any applicable usury laws of the State of California.

(p) *Compliance.* The Authority is in substantial compliance with all laws, ordinances, orders, rules and regulations applicable to it, except to the extent noncompliance could not reasonably be expected to result in a Material Adverse Effect.

(q) *Default.* The Authority is not in default in the performance, observance or fulfillment of any of the obligations, covenants or conditions contained in any the Related Document or any other resolution, agreement or instrument to which it is a party which could have a Material Adverse Effect.

(r) *Casualty.* Neither the business nor the Property of the Authority is currently affected by any fire, explosion, accident, strike, lockout or other labor dispute, drought, storm, hail, earthquake, embargo, act of God or of the public enemy or other casualty (whether or not covered by insurance), which could have a Material Adverse Effect.

(s) *Insurance.* The Authority currently maintains insurance coverage with insurance companies believed by the Authority to be capable of performing their obligations under the respective insurance policies issued by such insurance companies to the Authority (as determined in its reasonable discretion) and in full compliance with the terms hereof.

(t) *Taxes.* The Authority has filed any Federal, state and other material tax returns and reports required to be filed, and has paid all Federal, state and other material taxes, assessments, fees and other governmental charges levied or imposed upon them or their properties, income or assets otherwise due and payable, except those which are being contested in good faith by appropriate proceedings diligently conducted and for which adequate reserves have been provided in accordance with generally accepted accounting principles. There is no proposed tax assessment against the Authority that would, if made, have a Material Adverse Effect.

(u) *Sanctions Concerns; Anti-Corruption Laws.* The Authority and its Affiliates have conducted their business in compliance with all Anti-Corruption Laws and have instituted and maintained policies and procedures designed to promote and achieve compliance with such laws.

(i) None of (A) the Authority, or, to the knowledge of the Authority, any of their respective directors, officers, employees or Affiliates, or (B) to the knowledge of the Authority, any agent or representative of the Authority that will act in any capacity in connection with or benefit from the Loans or Term Loans, (1) is a Sanctioned Person or currently the subject or target of any Sanctions, (2) has its assets located in a Sanctioned Country, (3) is under administrative, civil or criminal investigation for an alleged violation of, or received notice from or made a voluntary disclosure to any governmental entity regarding a possible violation of, Anti-Corruption Laws, Anti-Money Laundering Laws or Sanctions by a governmental authority that enforces Sanctions or any Anti-Corruption Laws or Anti-Money Laundering Laws, or (4) directly or indirectly derives revenues from investments in, or transactions with, Sanctioned Persons

(ii) The Authority has implemented and maintains in effect policies and procedures designed to ensure compliance by the Authority and its respective directors, officers, employees, agents and Affiliates with all Anti-Corruption Laws, Anti-Money Laundering Laws and applicable Sanctions.

(iii) The Authority, and to the knowledge of the Authority, director, officer, employee, agent and Affiliate of the Authority, is in compliance with all Anti-Corruption Laws, Anti-Money Laundering Laws in all respects and applicable Sanctions.

(iv) No proceeds of any Loan or Term Loan have been used, directly or indirectly, by the Authority or any of its or their respective directors, officers, employees and agents in violation of Section 7.17 hereof.

Section 4.2. Representations of the Issuer. In order to induce the Lender to establish the Commitment and execute and deliver this Agreement, the Issuer represents and warrants to the Lender as follows:

(a) *Existence and Power.* The Issuer is a joint exercise of powers agency that is duly organized and existing under and pursuant to the laws of the State of California and the Issuer Joint Powers Agreement, and is possessed of full powers to own and lease (as lessor and lessee) real and personal property, to conduct its other business as presently conducted and to enter into contracts such as this Agreement and the other Related Documents, which powers have been validly exercised in connection with the transactions effected by this Agreement and the other Related Documents. The Issuer has full legal right, power and authority to enter into this Agreement and the other Related Documents and to carry out and consummate all transactions that are contemplated by this Agreement

and the other Related Documents and by proper action has duly authorized the execution and delivery and due performance of this Agreement and the other Related Documents.

(b) *Authorization; Contravention; Approvals.* The execution, delivery and performance by the Issuer of this Agreement, the Fee Agreement and the other Related Documents and the other documents contemplated hereby and thereby are within the powers of the Issuer, have been duly authorized by all necessary actions and (i) do not contravene the Act or any other law, rule, regulation, order, writ, judgment, injunction, decree, determination or award or any indenture, agreement, lease, instrument or other contractual restriction binding on or affecting the Issuer and (ii) except as provided in or contemplated by this Agreement and the Related Documents, do not result in or require the creation of any Lien, security interest or other charge or encumbrance upon or with respect to any asset of the Issuer. The Issuer is not in violation of or in default in any material respect under any law, rule, regulation, order, writ, judgment, injunction, decree, determination or award that would prevent or is reasonably likely to prevent the Issuer from performing its obligations under this Agreement, the Fee Agreement or the other Related Documents. The Issuer is not in violation of or in default in any material respect under any indenture, agreement, lease, instrument or other contractual restriction and is not in violation of or in default in any respect under any of the Related Documents that would prevent or is reasonably likely to prevent the Issuer from performing its obligations under this Agreement, the Fee Agreement or the other Related Documents. No Default or Event of Default has occurred and is continuing. All orders, consents and other authorizations or approvals of all Governmental Authorities and all other Persons have been obtained (and no additional authorization, approval or other action by, and no notice to or filing or registration with, any Governmental Authority is required to be made or obtained by the Issuer) for the due execution, delivery and performance by the Issuer of this Agreement and the other Related Documents.

(c) *Enforceability.* This Agreement and the other Related Documents, and other documents contemplated hereby and thereby to which the Issuer is a party or by which it is bound, are legally valid and binding obligations of the Issuer enforceable against the Issuer in accordance with their respective terms, except as such enforceability may be limited by (i) bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally; (ii) general principles of equity; (iii) the exercise of judicial discretion in appropriate cases; and (iv) to the limitations on legal remedies against municipal utility districts in the State of California.

(d) *Litigation.* Except as disclosed in writing to the Lender prior to the Closing Date, there are no actions, suits, proceedings, inquiries or investigations, at law or in equity, before any court, Governmental Authority or arbitrator pending or, to the best knowledge of the Issuer, threatened, against or directly involving the Issuer**,** affecting the existence of the Issuer, the title of any officials to their respective offices or affecting or seeking to prohibit, restrain or enjoin the execution or delivery of this Agreement or any Related Document, or in any way contesting or affecting the validity or enforceability of the Note, this Agreement, any other Related Document or contesting the tax-exempt status of the Note, or contesting the powers of the Issuer or any authority for the issuance of the Note,

the execution and delivery of this Agreement or the other Related Documents, nor, to the best, knowledge of the Issuer, is there any basis therefor, which, if determined adversely to the Issuer (i) would adversely affect the validity or enforceability of, or the authority or ability of the Issuer to perform its obligations under, this Agreement, the Fee Agreement or any other the Related Documents, (ii) would, in the reasonable opinion of the Issuer, have a material adverse effect on the business, financial position or results of operations of the Issuer, (iii) would adversely affect the exclusion of interest on the Note from gross income for Federal income tax purposes or the exemption of such interest from State of California personal income taxes, or (iv) could otherwise reasonably be expected to result in a Material Adverse Effect.

(e) *Financial Information.* (i) Except as has been disclosed in writing to the Lender prior to the Closing Date, since June 30, 2025, there has been no material adverse change in the business, financial position or results of operations of the Issuer, LVMWD or TWSD which could reasonably be expected to result in a Material Adverse Effect.

(ii) Except as reflected in the financial statements included in the 2025 Financial Statements or as has been disclosed in writing to the Lender prior to the Closing Date and except for the Issuer's obligations set forth in this Agreement and the other Related Documents, there are as of the date hereof no liabilities or obligations with respect to the Issuer of any nature whatsoever (whether absolute, accrued, contingent or otherwise and whether or not due) which, in the aggregate, would be material to the Issuer. The Issuer does not know of any basis for the assertion against the Issuer of any liability or obligation of any nature whatsoever that was not disclosed to the Lender in writing prior to the Closing Date which, in the aggregate, could be material to the Issuer.

(f) *Disclosure.* No written information furnished by the Issuer to the Lender in connection with this Agreement (except information which has been superseded by subsequent information provided by the Issuer) includes any untrue statement of a material fact.

(g) *Environmental Matters.* Except as disclosed in writing to the Lender prior to the Closing Date, the Issuer has not received notice to the effect that the operations of the Joint System are not in compliance with any of the requirements of applicable Federal, state or local environmental, health and safety statutes and regulations or are the subject of any governmental investigation evaluating whether any remedial action is needed to respond to a release of any toxic or hazardous waste or substance into the environment, in each case which non-compliance or remedial action could have a Material Adverse Effect.

(h) *Plans.* The Authority is not subject to ERISA or maintains no Plan.

(i) *Regulations U and X.* The Issuer is not engaged in the business of extending credit for the purpose of purchasing or carrying margin stock (within the meaning of Regulation U or X issued by the Board of Governors of the Federal Reserve System); and no proceeds of any Loans or Term Loans will be used to extend credit to others for the purpose of purchasing or carrying any margin stock.

(j) *Tax-Exempt Status.* The Issuer has not taken any action or omitted to take any action, and knows of no action taken or omitted to be taken by any other Person, which action, if taken or omitted, would adversely affect the exclusion of interest on the Note from gross income for Federal income tax purposes or the exemption of such interest from State of California personal income taxes.

(k) *Security.* The Payment Agreements create a pledge of all Purchaser Revenues as security for the installment payments payable under the Installment Payments. The Installment Purchase Agreement creates a pledge of all Revenues as security for the punctual payment of the interest and principal due with respect to the Note and the Obligations owed to the Lender hereunder. All actions necessary to create a pledge of all Purchaser Revenues and the Revenues have been duly and validly taken. The Issuer's obligation to pay the Obligations is *pari passu* with its obligation to pay any Installment Purchase Agreement Parity Debt.

(l) *Constitutional Matters.* There is no amendment, or, to the best knowledge of the Issuer, proposed amendment certified for placement on a statewide ballot, to the Constitution of the State of California or any published administrative interpretation of the Constitution of the State of California or any State of California law, or any legislation which has passed either house of the State legislature, or any published judicial decision interpreting any of the foregoing, the effect of which could reasonably be expected to have Material Adverse Effect. There is no public vote or referendum pending, proposed or concluded, the results of which could reasonably be expected result in a Material Adverse Effect.

(m) *No Sovereign Immunity.* The Issuer is not entitled to claim immunity on the grounds of sovereignty or other similar grounds (including, without limitation, governmental immunity) with respect to itself or its revenues (irrespective of their use or intended use) from (i) any action, suit or other proceeding arising under or relating to this Agreement or any other Related Document, (ii) relief by way of injunction, order for specific performance or writ of mandamus or for recovery of property or (iii) execution or enforcement of any judgment to which it or Revenues might otherwise be made subject in any action, suit or proceeding relating to this Agreement or any other Related Document, and no such immunity (whether or not claimed) may be attributed to the Issuer or Revenues.

(n) *Incorporation of Representations and Warranties by Reference.* The Issuer hereby makes to the Lender every representation and warranty made by it in the Related Documents, which representations and warranties, as well as the defined terms contained therein that are necessary for a correct interpretation thereof, are incorporated herein by this reference with the same effect as if each and every such provision and defined term were set forth herein in its entirety. No amendment, modification, termination or replacement of any such representations, warranties, covenants and definitions contained in the Related Documents shall be effective to amend, modify, terminate or replace the representations, warranties, covenants and definitions incorporated herein by this reference, without the prior written consent of the Lender. The representations and

warranties of the Issuer in all of the Related Documents are true and correct in all material respects.

(o) *No Violation of Usury Laws.* The terms hereof regarding the calculation and payment of interest on the Note do not violate any applicable usury laws of the State of California and, the terms of this Agreement, the Fee Agreement, and the Note regarding the calculation and payment of interest and fees and other amounts due under this Agreement, the Fee Agreement, and the Note do not violate any applicable usury laws of the State of California.

(p) *Compliance.* The Issuer is in substantial compliance with all laws, ordinances, orders, rules and regulations applicable to it, except to the extent noncompliance could not reasonably be expected to result in a Material Adverse Effect.

(q) *Default.* The Issuer is not in default in the performance, observance or fulfillment of any of the obligations, covenants or conditions contained in any the Related Document or any other resolution, agreement or instrument to which it is a party which could have a Material Adverse Effect.

(r) *Reserved*.

(s) *Reserved.*

(t) *Taxes.* The Issuer has filed any Federal, state and other material tax returns and reports required to be filed, and has paid all Federal, state and other material taxes, assessments, fees and other governmental charges levied or imposed upon them or their properties, income or assets otherwise due and payable, except those which are being contested in good faith by appropriate proceedings diligently conducted and for which adequate reserves have been provided in accordance with generally accepted accounting principles. There is no proposed tax assessment against the Issuer that would, if made, have a Material Adverse Effect.

(u) *Sanctions Concerns; Anti-Corruption Laws.* The Issuer and its Affiliates have conducted their business in compliance with all Anti-Corruption Laws and have instituted and maintained policies and procedures designed to promote and achieve compliance with such laws.

(i) None of (A) the Issuer, or, to the knowledge of the Issuer, any of their respective directors, officers, employees or Affiliates, or (B) to the knowledge of the Issuer, any agent or representative of the Issuer that will act in any capacity in connection with or benefit from the Loans or Term Loans, (1) is a Sanctioned Person or currently the subject or target of any Sanctions, (2) has its assets located in a Sanctioned Country, (3) is under administrative, civil or criminal investigation for an alleged violation of, or received notice from or made a voluntary disclosure to any governmental entity regarding a possible violation of, Anti-Corruption Laws, Anti-Money Laundering Laws or Sanctions by a governmental authority that

enforces Sanctions or any Anti-Corruption Laws or Anti-Money Laundering Laws, or (4) directly or indirectly derives revenues from investments in, or transactions with, Sanctioned Persons

(ii) The Issuer has implemented and maintains in effect policies and procedures designed to ensure compliance by the Issuer and its respective directors, officers, employees, agents and Affiliates with all Anti-Corruption Laws, Anti-Money Laundering Laws and applicable Sanctions.

(iii) The Issuer, and to the knowledge of the Issuer, director, officer, employee, agent and Affiliate of the Issuer, is in compliance with all Anti-Corruption Laws, Anti-Money Laundering Laws in all respects and applicable Sanctions.

(iv) No proceeds of any Loan or Term Loan have been used, directly or indirectly, by the Issuer or any of its or their respective directors, officers, employees and agents in violation of Section 7.17 hereof.

ARTICLE FIVE

COVENANTS

Section 5.1. Covenants of the Authority. The Authority will do the following so long as any amounts may be drawn hereunder or any Obligations remain outstanding under this Agreement, unless the Lender shall otherwise consent in writing:

(a) *Reports and Other Information.* The Authority will furnish, or cause to be furnished, at the Authority's expense to the Lender:

(i) As soon as possible and in any event within five (5) Business Days after the knowledge (actual or constructive) or notice of occurrence of any Event of Default, a statement of the Authorized Authority Representative setting forth details of such Event of Default and the action that the Authority proposes to take with respect thereto;

(ii) As soon as available and in any event within two hundred seventy (270) days after the end of each Fiscal Year of the Authority, LVMWD and TWSD, a copy of the audited financial statements of the Authority, LVMWD and TWSD for such year, including a balance sheet of the Authority, LVMWD and TWSD as at the end of such Fiscal Year and the related statements of revenues, expenses and changes in fund balances and statement of cash flows, also including, without limitation, calculation of the rate covenants referenced in Sections 5.1(t), 6.1(s) and 6.1(v) hereof, all in reasonable detail and reported on by a firm of nationally recognized independent certified public accountants, and the report of such firm of independent certified public accountants shall state, without qualification, that such financial statements present fairly the financial position of the Authority, LVMWD

and TWSD as of the end of such Fiscal Year, the results of operations, the changes in fund balances and cash flows of the Authority, LVMWD and TWSD for such Fiscal Year then ended in conformity with generally accepted accounting principles;

(iii) Simultaneously with the delivery of each set of financial statements referred to in clause (ii) above, a certificate of an Authorized Authority Representative stating whether there exists on the date of such certificate any Event of Default or Default and, if any Event of Default or Default then exists, setting forth the details thereof and the action that the Authority is taking or proposes to take with respect thereto;

(iv) As soon as practicable and in any event within ten (10) Business Days after the Authority obtains actual knowledge of: (A) any litigation, arbitration or governmental proceeding pending against the Authority that challenges the Authority's ability to perform its obligations under this Agreement and/or the other Related Documents; or (B) any other event or condition that would prevent or is reasonably likely to prevent the Authority from performing its obligations under this Agreement and/or the other Related Documents, in each case a statement of the Authorized Authority Representative setting forth details describing the same and the steps being taken with respect thereto;

(v) As soon as practicable, notice of any disclosure documents publicly distributed in connection with any issue of Payment Agreement Parity Debt;

(vi) As soon as practicable, notice of any change in, or the withdrawal of, any Rating by any Rating Agency;

(vii) As soon as practicable and in any event within sixty (60) days after the end of each Fiscal Year of the Authority**,** LVMWD and TWSD, the annual budget of the Authority, LVMWD and TWSD; and

(viii) From time to time, such additional information regarding the financial position, results of operations, business or prospects of the Authority as the Lender may reasonably request.

(b) *Books and Records; Inspections.* The Authority will keep proper books of record and account with respect to the Joint System in which full and correct entries shall be made of assets and liabilities, financial transactions and business of the Authority in conformity with generally accepted accounting principles. The Authority will upon reasonable notice permit any Person designated by the Lender in writing to visit any of the properties of the Authority, and to examine the books and financial records of the Authority relating to the Joint System and make copies thereof or extracts therefrom, and to discuss the affairs, finances and accounts of the Authority relating to the Authority with the principal officers of the Authority all at such reasonable times during normal business hours and as often as the Lender may reasonably request.

(c) *Maintain Existence.* The Authority shall will (i) preserve, renew, and maintain in full force and effect its legal existence as a joint exercise of powers entity duly organized and existing under and by virtue of the laws of the State of California, (ii) take all reasonable action to maintain all other rights, privileges, permits, licenses, and franchises necessary or desirable in the normal conduct of its business, except to the extent that failure to do so could not reasonably be expected to have a Material Adverse Effect, and (iii) preserve or renew all of its registered patents, trademarks, trade names, and service marks, the non-preservation of which could reasonably be expected to have a Material Adverse Effect. The Authority shall not engage in any material line of business substantially different from those lines of business conducted by the Authority on the Closing Date or any business substantially related or incidental thereto.

(d) *Compliance with Laws.* The Authority will comply with the requirements of all laws, rules, regulations and orders of any Governmental Authority having jurisdiction over the Authority and/or the Joint System (including, without limitation, environmental laws, all Anti-Corruption Laws, Anti-Money Laundering Laws in all respects and applicable Sanctions), noncompliance with which would materially adversely affect the ability of the Authority to perform its obligations under this Agreement and the other Related Documents.

(e) *Compliance with Agreements.* The Authority will observe and perform all of its obligations under this Agreement and the other Related Documents.

(f) *Incorporation of Covenants by Reference.* The Authority agrees that it will perform and comply with each and every covenant and agreement required to be performed or observed by it in each of the Related Documents to which it is a party, which provisions, as well as related defined terms contained therein, are hereby incorporated by reference herein with the same effect as if each and every such provision were set forth herein in its entirety all of which shall be deemed to be made for the benefit of the Lender and shall be enforceable against the Authority. To the extent that any such incorporated provision permits the Authority or any other party to waive compliance with such provision or requires that a document, opinion or other instrument or any event or condition be acceptable or satisfactory to the Authority or any other party, for purposes of this Agreement, such provision shall be complied with unless it is specifically waived by the Lender in writing and such document, opinion or other instrument and such event or condition shall be acceptable or satisfactory only if it is acceptable or satisfactory to the Lender which shall only be evidenced by the written approval by the Lender of the same. No termination or amendment to such covenants and agreements or defined terms or release of the Authority with respect thereto made pursuant to the Related Documents, shall be effective to terminate or amend such covenants and agreements and defined terms or release the Authority with respect thereto in each case as incorporated by reference herein without the prior written consent of the Lender. Notwithstanding any termination or expiration of any of the Related Documents, the Authority shall continue to observe such incorporated covenants therein contained for the benefit of the Lender until the termination of this Agreement and the payment in full of all Obligations. All such incorporated covenants shall be in addition to the express covenants contained herein and shall not be

limited by the express covenants contained herein nor shall such incorporated covenants be a limitation on the express covenants contained herein. In the event of a conflict between the covenants and agreements set forth in this Section 5.1 (other than the incorporated provisions) and the incorporated provisions, the covenants and agreements set forth in the other provisions of Section 5.1 shall prevail.

(g) *Related Documents.* The Authority will not amend, supplement or otherwise modify, or agree to the amendment, modification or termination of, any of the Related Documents.

(h) *Payment of Obligations.* The Authority shall pay and discharge, unless refinanced or extended, as the same become due and payable, all its obligations and liabilities, including (i) all tax liabilities, assessments, and governmental charges or levies upon it or its properties or assets, if any, unless the same are being contested in good faith by appropriate proceedings diligently conducted and adequate reserves in accordance with GAAP are being maintained by the Authority (ii) all lawful claims that, if unpaid, would by law become a Lien upon its property, and (iii) all Debt, as and when due and payable, but subject to any subordination provisions contained in any instrument or agreement evidencing such Debt.

(i) *Alternate Provider.* The Authority agrees that any termination of the Commitment and this Agreement as a result of the provision of any alternate credit facility will require, as a condition thereto, that the Authority or the issuer of the alternate credit facility will provide funds on the date of such termination or provision, which funds will be sufficient to pay in full at the time of termination of the Commitment all Obligations due to the Lender hereunder.

(j) *Most Favored Nations.* In the event that the Authority has or shall, directly or indirectly, enter into or otherwise consent to any Bank Agreement which such Bank Agreement provides such Person with a shorter amortization period than what is set forth in Section 2.22(b) hereof, different or more restrictive covenants, different or additional events of default and/or greater rights and remedies than are provided to the Lender in this Agreement, the Authority shall provide the Lender with a copy of each such Bank Agreement and such shorter amortization period, different or more restrictive covenants, different or additional events of default and/or greater rights and remedies shall automatically be deemed to be incorporated into this Agreement and the Lender shall have the benefits of such shorter amortization period, different or more restrictive covenants, different or additional events of default and/or greater rights and remedies as if specifically set forth herein. Notwithstanding anything in this Section 5.1(j) to the contrary, clause (c) of the defined term "Event of Default" as set forth in the State Loan Agreement shall not be incorporated into this Agreement pursuant to this Section 5.1(j).

(k) *Additional Debt*. The Authority shall not, not shall it permit any Person to, issue any Debt secured by the Revenues which is senior to the lien securing the Note and other Obligations. The Authority shall not, not shall it permit any Person to, issue any Debt secured by Purchaser Revenues which is senior to the lien securing the Project Bonds

pursuant to any Payment Agreement. The Authority shall not, nor shall it permit any other Person to, issue or incur any additional Debt unless (i) such Debt is issued in accordance with the terms of the Payment Agreements and (ii) after the issuance or incurrence of such Debt (a) no Default or Event of Default shall have occurred as a result of the issuance or incurrence of such Debt and (b) the issuance or incurrence of such Debt could reasonably be expected to result in a Material Adverse Effect. The Authority shall not issue any Debt which is not secured by or payable from Revenues.

(l) *Offering Documents.* Except as may be required by law (including, but not limited to, federal and state securities laws), the Authority shall not make reference to the Lender in any offering document without the Lender's prior written consent thereto (other than references to the name of the Lender solely in the Lender's capacity as the credit provider with respect to the Note). Except as may be required by law (including, but not limited to, federal and state securities laws), the Authority shall not use the Lender's name (other than references to the name of the Lender solely in the Lender's capacity as the credit provider with respect to the Note) in any published materials (other than the Authority's staff reports, annual statements, audited financial statements, rating agency presentations) without the prior written consent of the Lender.

(m) *Use of Proceeds.* The proceeds of the Loans and Term Loans will be expended in the manner set forth in the Installment Purchase Agreement and in not in violation of any applicable law.

(n) *Ranking of Obligations.* The Authority shall not take any action that would result in the Obligations not ranking at least *pari passu* in right of payment from Revenues with the Note and all Installment Purchase Agreement Parity Debt.

(o) *Investments*. The Authority shall not, directly or indirectly, invest in instruments and securities other than those permitted by, and in accordance with **[California Government Code Sections 53600 to 53609]** or the Related Documents. The Authority will not permit the Authority to encumber its cash position nor schedule the interest payment dates and maturities of its investments in a manner which impedes, hinders or interferes with the availability of funds to meet the Authority's expected cash needs.

(p) *Debt Service.* Notwithstanding anything in the Payment Agreements to the contrary, if any Term Loan is outstanding hereunder or if the principal amount of the Loans or Term Loans are due and payable in accordance pursuant to Sections 2.3, 2.8, 2.22 or 6.2 hereof, for purposes of Section 6 of each Payment Agreement, (A) the Authority shall not determine, or allow any other Person to determine, that the principal amount of the Note or any other Obligations to be "Excluded Principal" for purposes of any Payment Agreement and (B) (1) with respect to the first proviso in the term "Debt Service" in each Payment Agreement, the Authority shall instead use the applicable interest rates hereunder when determining "Debt Service" for the Note and other Obligations and (2) with respect to the second proviso in the term "Debt Service" in each Payment Agreement, the Authority

shall instead use the amount of principal payable hereunder when determining "Debt Service" for the Note and other Obligations.

(q) *Reserved.*

(r) *Payment of Taxes, Etc.* The Authority will pay and discharge, or cause to be paid and discharged, all taxes, assessments and other governmental charges which may hereafter be lawfully imposed upon the Authority on account of the Joint System or any portion thereof and which, if unpaid, might impair the security of the Note, when the same shall become due, but nothing herein contained shall require the Authority to pay any such tax, assessment or charge so long as it shall in good faith contest the validity thereof. The Authority will duly observe and conform to all valid material requirements of any Governmental Authority relative to the Joint System or any part thereof.

(s) *Operation and Maintenance of Joint System.* The Authority will operate, maintain and preserve the Joint System in good repair and working order in conformity with standards customarily followed for systems of like size and character. The Authority will from time to time make necessary and proper repairs, renewals, replacements and substitutions to the properties of the Joint System, so that business carried on in connection with the Joint System shall and can be conducted in an efficient and economical manner, and will operate the Joint System in an efficient and economical manner. The Authority shall not use the Joint System to conduct any business other than that which is lawfully permitted.

(t) *Amounts of Rates and Charges.* To the extent permitted by law, the Authority hereby covenants to establish, maintain and collect rates and charges with respect to the Joint System sufficient to pay all Parity Debt, the Note and all Obligations due and owing hereunder.

(u) *Maintenance of Insurance.* The Authority shall keep the Joint System insured with insurance companies believed by the Authority to be capable of performing their obligations under the respective insurance policies issued by such insurance companies to the Authority (as determined in its reasonable discretion) in conformity with standards customarily followed for systems of like size and character.

(v) *Sale or Other Disposition of Property*. The Authority shall not sell or otherwise dispose of any property essential to the proper operation of the Joint System. The Authority will not enter into any lease or agreement which impairs or impedes the operation of the Joint System or which otherwise impairs or impedes the rights of the or the Lender. Subject to the preceding sentence, nothing contained herein shall prevent the Authority from entering into sale and leaseback agreements pursuant to which the Authority may acquire the use of property subject to the terms of such sale and leaseback agreements.

(w) *Liens.* The Authority shall not, directly or indirectly, incur, create or permit to exist any Lien on all or any portion of the Revenues that would affect the priority of Liens in existence on the Closing Date.

(x) *Further Assurances.* The Authority agrees to do such further acts and things and to execute and deliver to the Lender such additional assignments, agreements, powers and instruments as the Lender may reasonably require or reasonably deem advisable to carry into effect the purposes of this Agreement and the Fee Agreement or to better assure and confirm to the Lender its rights, powers and remedies hereunder and under the Related Documents or to confirm this Agreement, and the other Related Documents, to carry out the purpose and intent hereof and thereof. At any time, and from time to time, upon request by the Lender, the Authority will, at the Authority's expense, (i) correct any defect, error or omission which may be discovered in the form or content of any of the Related Documents, and (ii) make, execute, deliver and record, or cause to be made, executed, delivered and recorded, any and all further instruments, certificates, and other documents as may, in the opinion of the Lender, be necessary or desirable in order to complete, perfect or continue and preserve the Lien of the Installment Purchase Agreement and hereof. Upon any failure by the Authority to do so, the Lender may make, execute and record any and all such instruments, certificates and other documents for and in the name of the Authority, all at the sole expense of the Authority, and the Authority hereby appoints the Lender the agent and attorney-in-fact of the Authority to do so, this appointment being coupled with an interest and being irrevocable.

(y) *Immunity.* To the fullest extent permitted by applicable law, with respect to its obligations arising under this Agreement or any other Related Document, the Authority irrevocably agrees that it will not assert or claim any immunity on the grounds of sovereignty or other similar grounds (including, without limitation, governmental immunity) from (i) any action, suit or other proceeding arising under or relating to this Agreement or any other Related Document, (ii) relief by way of injunction, order for specific performance or writ of mandamus or (iii) execution or enforcement of any judgment to which it or its revenues might otherwise be entitled in any such action, suit or other proceeding, and the Authority hereby irrevocably waives, to the fullest extent permitted by applicable law, with respect to itself, the Revenues (irrespective of their use or intended use), all such immunity.

(z) *Swap Contracts.* Without the prior written consent of the Lender, the Authority shall not enter into any Swap Contracts relating to Debt wherein any termination payments thereunder are senior to or on parity with the payment of any Obligation.

Section 5.2. Covenants of the Issuer. The Issuer will do the following so long as any amounts may be drawn hereunder or any Obligations remain outstanding under this Agreement, unless the Lender shall otherwise consent in writing:

(a) *Reports and Other Information.* The Issuer will furnish, or cause to be furnished, at the Issuer's expense to the Lender:

(i) As soon as possible and in any event within five (5) Business Days after the knowledge (actual or constructive) or notice of occurrence of any Event of Default, a statement of the Authorized Issuer Representative setting forth details of such Event of Default and the action that the Issuer proposes to take with respect thereto;

(ii) As soon as available and in any event within two hundred seventy (270) days after the end of each Fiscal Year of the Issuer, a copy of the audited financial statements of the Issuer for such year, including a balance sheet of the Issuer as at the end of such Fiscal Year and the related statements of revenues, expenses and changes in fund balances and statement of cash flows, also including, without limitation, calculation of the rate covenant referenced in Sections 5.2(t) hereof, all in reasonable detail and reported on by a firm of nationally recognized independent certified public accountants, and the report of such firm of independent certified public accountants shall state, without qualification, that such financial statements present fairly the financial position of the Issuer as of the end of such Fiscal Year, the results of operations, the changes in fund balances and cash flows of the Issuer for such Fiscal Year then ended in conformity with generally accepted accounting principles;

(iii) Simultaneously with the delivery of each set of financial statements referred to in clause (ii) above, a certificate of an Authorized Issuer Representative stating whether there exists on the date of such certificate any Event of Default or Default and, if any Event of Default or Default then exists, setting forth the details thereof and the action that the Issuer is taking or proposes to take with respect thereto;

(iv) As soon as practicable and in any event within ten (10) Business Days after the Issuer obtains actual knowledge of: (A) any litigation, arbitration or governmental proceeding pending against the Issuer that challenges the Issuer's ability to perform its obligations under this Agreement and/or the other Related Documents; or (B) any other event or condition that would prevent or is reasonably likely to prevent the Issuer from performing its obligations under this Agreement and/or the other Related Documents, in each case a statement of the Authorized Issuer Representative setting forth details describing the same and the steps being taken with respect thereto;

(v) As soon as practicable, notice of any disclosure documents publicly distributed in connection with any issue of Parity Debt;

(vi) As soon as practicable, notice of any change in, or the withdrawal of, any Rating by any Rating Agency;

(vii) As soon as practicable and in any event within sixty (60) days after the end of each Fiscal Year of the Issuer, the annual budget of the Issuer; and

(viii) From time to time, such additional information regarding the financial position, results of operations, business or prospects of the Issuer as the Lender may reasonably request.

(b) *Books and Records; Inspections.* The Issuer will keep proper books of record and account in which full and correct entries shall be made of assets and liabilities, financial transactions and business of the Issuer in conformity with generally accepted accounting principles. The Issuer will upon reasonable notice permit any Person designated by the Lender in writing to visit any of the properties of the Issuer, and to examine the books and financial records of the Issuer and make copies thereof or extracts therefrom, and to discuss the affairs, finances and accounts of the Issuer relating to the Issuer with the principal officers of the Issuer all at such reasonable times during normal business hours and as often as the Lender may reasonably request.

(c) *Maintain Existence.* The Issuer shall will (i) preserve, renew, and maintain in full force and effect its legal existence as a joint exercise of powers entity duly organized and existing under and by virtue of the laws of the State of California, (ii) take all reasonable action to maintain all other rights, privileges, permits, licenses, and franchises necessary or desirable in the normal conduct of its business, except to the extent that failure to do so could not reasonably be expected to have a Material Adverse Effect, and (iii) preserve or renew all of its registered patents, trademarks, trade names, and service marks, the non-preservation of which could reasonably be expected to have a Material Adverse Effect. The Issuer shall not engage in any material line of business substantially different from those lines of business conducted by the Issuer on the Closing Date or any business substantially related or incidental thereto.

(d) *Compliance with Laws.* The Issuer will comply with the requirements of all laws, rules, regulations and orders of any Governmental Authority having jurisdiction over the Issuer (including, without limitation, environmental laws, all Anti-Corruption Laws, Anti-Money Laundering Laws in all respects and applicable Sanctions), noncompliance with which would materially adversely affect the ability of the Issuer to perform its obligations under this Agreement and the other Related Documents.

(e) *Compliance with Agreements.* The Issuer will observe and perform all of its obligations under this Agreement and the other Related Documents.

(f) *Incorporation of Covenants by Reference.* The Issuer agrees that it will perform and comply with each and every covenant and agreement required to be performed or observed by it in each of the Related Documents to which it is a party, which provisions, as well as related defined terms contained therein, are hereby incorporated by reference herein with the same effect as if each and every such provision were set forth herein in its entirety all of which shall be deemed to be made for the benefit of the Lender and shall be enforceable against the Issuer. To the extent that any such incorporated provision permits the Issuer or any other party to waive compliance with such provision or requires that a document, opinion or other instrument or any event or condition be acceptable or satisfactory to the Issuer or any other party, for purposes of this Agreement, such provision

shall be complied with unless it is specifically waived by the Lender in writing and such document, opinion or other instrument and such event or condition shall be acceptable or satisfactory only if it is acceptable or satisfactory to the Lender which shall only be evidenced by the written approval by the Lender of the same. No termination or amendment to such covenants and agreements or defined terms or release of the Issuer with respect thereto made pursuant to the Related Documents, shall be effective to terminate or amend such covenants and agreements and defined terms or release the Issuer with respect thereto in each case as incorporated by reference herein without the prior written consent of the Lender. Notwithstanding any termination or expiration of any of the Related Documents, the Issuer shall continue to observe such incorporated covenants therein contained for the benefit of the Lender until the termination of this Agreement and the payment in full of all Obligations. All such incorporated covenants shall be in addition to the express covenants contained herein and shall not be limited by the express covenants contained herein nor shall such incorporated covenants be a limitation on the express covenants contained herein. In the event of a conflict between the covenants and agreements set forth in this Section 5.2 (other than the incorporated provisions) and the incorporated provisions, the covenants and agreements set forth in the other provisions of Section 5.2 shall prevail.

(g) *Related Documents.* The Issuer will not amend, supplement or otherwise modify, or agree to the amendment, modification or termination of, any of the Related Documents.

(h) *Payment of Obligations.* The Issuer shall pay and discharge, unless refinanced or extended, as the same become due and payable, all its obligations and liabilities, including (i) all tax liabilities, assessments, and governmental charges or levies upon it or its properties or assets, if any, unless the same are being contested in good faith by appropriate proceedings diligently conducted and adequate reserves in accordance with GAAP are being maintained by the Issuer (ii) all lawful claims that, if unpaid, would by law become a Lien upon its property, and (iii) all Debt, as and when due and payable, but subject to any subordination provisions contained in any instrument or agreement evidencing such Debt.

(i) *Alternate Provider.* The Issuer agrees that any termination of the Commitment and this Agreement as a result of the provision of any alternate credit facility will require, as a condition thereto, that the Issuer or the issuer of the alternate credit facility will provide funds on the date of such termination or provision, which funds will be sufficient to pay in full at the time of termination of the Commitment all Obligations due to the Lender hereunder.

(j) *Most Favored Nations.* In the event that the Issuer has or shall, directly or indirectly, enter into or otherwise consent to any Bank Agreement which such Bank Agreement provides such Person with a shorter amortization period than what is set forth in Section 2.22(b) hereof, different or more restrictive covenants, different or additional events of default and/or greater rights and remedies than are provided to the Lender in this Agreement, the Issuer shall provide the Lender with a copy of each such Bank Agreement

and such shorter amortization period, different or more restrictive covenants, different or additional events of default and/or greater rights and remedies shall automatically be deemed to be incorporated into this Agreement and the Lender shall have the benefits of such shorter amortization period, different or more restrictive covenants, different or additional events of default and/or greater rights and remedies as if specifically set forth herein. Notwithstanding anything in this Section 5.2(j) to the contrary, clause (c) of the defined term "Event of Default" as set forth in the State Loan Agreement shall not be incorporated into this Agreement pursuant to this Section 5.2(j).

(k) *Additional Debt*. The Issuer shall not, not shall it permit any Person to, issue any Debt secured by the Revenues which is senior to the lien securing the Note and other Obligations. The Issuer shall not, not shall it permit any Person to, issue any Debt secured by Purchaser Revenues which is senior to the lien securing the Project Bonds pursuant to any Payment Agreement. The Issuer shall not, nor shall it permit any other Person to, issue or incur any additional Debt unless (i) such Debt is issued in accordance with the terms of the Payment Agreements and (ii) after the issuance or incurrence of such Debt (a) no Default or Event of Default shall have occurred as a result of the issuance or incurrence of such Debt and (b) the issuance or incurrence of such Debt could reasonably be expected to result in a Material Adverse Effect. The Issuer shall not issue any Debt which is not secured by or payable from Purchaser Revenues or the Net Revenues.

(l) *Offering Documents.* Except as may be required by law (including, but not limited to, federal and state securities laws), the Issuer shall not make reference to the Lender in any offering document without the Lender's prior written consent thereto (other than references to the name of the Lender solely in the Lender's capacity as the credit provider with respect to the Note). Except as may be required by law (including, but not limited to, federal and state securities laws), the Issuer shall not use the Lender's name (other than references to the name of the Lender solely in the Lender's capacity as the credit provider with respect to the Note) in any published materials (other than the Issuer's staff reports, annual statements, audited financial statements, rating agency presentations) without the prior written consent of the Lender.

(m) *Use of Proceeds.* The proceeds of the Loans and Term Loans will be expended in the manner set forth in the Installment Purchase Agreement and in not in violation of any applicable law.

(n) *Ranking of Obligations.* The Issuer shall not take any action that would result in the Obligations not ranking at least *pari passu* in right of payment from Revenues with the Note and all Installment Purchase Agreement Parity Debt.

(o) *Investments*. The Issuer shall not, directly or indirectly, invest in instruments and securities other than those permitted by, and in accordance with **[California Government Code Sections 53600 to 53609]** or the Related Documents. The Issuer will not permit the Issuer to encumber its cash position nor schedule the interest payment dates and maturities of its investments in a manner which impedes, hinders or interferes with the availability of funds to meet the Issuer's expected cash needs.

(p) *Debt Service.* Notwithstanding anything in the Payment Agreements to the contrary, if any Term Loan is outstanding hereunder or if the principal amount of the Loans or Term Loans are due and payable in accordance pursuant to Sections 2.3, 2.8, 2.22 or 6.2 hereof, for purposes of Section 6 of each Payment Agreement, (A) the Issuer shall not determine, or allow any other Person to determine, that the principal amount of the Note or any other Obligations to be "Excluded Principal" for purposes of any Payment Agreement and (B) (1) with respect to the first proviso in the term "Debt Service" in each Payment Agreement, the Issuer shall instead use the applicable interest rates hereunder when determining "Debt Service" for the Note and other Obligations and (2) with respect to the second proviso in the term "Debt Service" in each Payment Agreement, the Issuer shall instead use the amount of principal payable hereunder when determining "Debt Service" for the Note and other Obligations.

(q) *Reserved.*

(r) *Payment of Taxes, Etc.* The Issuer will pay and discharge, or cause to be paid and discharged, all taxes, assessments and other governmental charges which may hereafter be lawfully imposed upon the Issuer on account of the Joint System or any portion thereof and which, if unpaid, might impair the security of the Note, when the same shall become due, but nothing herein contained shall require the Issuer to pay any such tax, assessment or charge so long as it shall in good faith contest the validity thereof. The Issuer will duly observe and conform to all valid material requirements of any Governmental Authority relative to the Joint System or any part thereof.

(s) *Reserved.*

(t) *Reserved*.

(u) *Reserved*.

(v) *Reserved.*

(w) *Liens.* The Issuer shall not, directly or indirectly, incur, create or permit to exist any Lien on all or any portion of the Revenues that would affect the priority of Liens in existence on the Closing Date.

(x) *Incorporation of Covenants by Reference*. The Issuer agrees that it will perform and comply with each and every covenant and agreement required to be performed or observed by it in each of the Related Documents to which it is a party, which provisions, as well as related defined terms contained therein, are hereby incorporated by reference herein with the same effect as if each and every such provision were set forth herein in its entirety all of which shall be deemed to be made for the benefit of the Lender and shall be enforceable against the Issuer. To the extent that any such incorporated provision permits the Issuer or any other party to waive compliance with such provision or requires that a document, opinion or other instrument or any event or condition be acceptable or satisfactory to the Issuer or any other party, for purposes of this Agreement, such provision

shall be complied with unless it is specifically waived by the Lender in writing and such document, opinion or other instrument and such event or condition shall be acceptable or satisfactory only if it is acceptable or satisfactory to the Lender which shall only be evidenced by the written approval by the Lender of the same. No termination or amendment to such covenants and agreements or defined terms or release of the Issuer with respect thereto made pursuant to the Related Documents, shall be effective to terminate or amend such covenants and agreements and defined terms or release the Issuer with respect thereto in each case as incorporated by reference herein without the prior written consent of the Lender. Notwithstanding any termination or expiration of any of the Related Documents, the Issuer shall continue to observe such incorporated covenants therein contained for the benefit of the Lender until the termination of this Agreement and the payment in full of all Obligations. All such incorporated covenants shall be in addition to the express covenants contained herein and shall not be limited by the express covenants contained herein nor shall such incorporated covenants be a limitation on the express covenants contained herein.

(y) *Further Assurances.* The Issuer agrees to do such further acts and things and to execute and deliver to the Lender such additional assignments, agreements, powers and instruments as the Lender may reasonably require or reasonably deem advisable to carry into effect the purposes of this Agreement and the Fee Agreement or to better assure and confirm to the Lender its rights, powers and remedies hereunder and under the Related Documents or to confirm this Agreement, and the other Related Documents, to carry out the purpose and intent hereof and thereof. At any time, and from time to time, upon request by the Lender, the Issuer will, at the Issuer's expense, (i) correct any defect, error or omission which may be discovered in the form or content of any of the Related Documents, and (ii) make, execute, deliver and record, or cause to be made, executed, delivered and recorded, any and all further instruments, certificates, and other documents as may, in the opinion of the Lender, be necessary or desirable in order to complete, perfect or continue and preserve the Lien of the Installment Purchase Agreement and hereof. Upon any failure by the Issuer to do so, the Lender may make, execute and record any and all such instruments, certificates and other documents for and in the name of the Issuer, all at the sole expense of the Issuer, and the Issuer hereby appoints the Lender the agent and attorney-in-fact of the Issuer to do so, this appointment being coupled with an interest and being irrevocable.

(z) *Immunity.* To the fullest extent permitted by applicable law, with respect to its obligations arising under this Agreement or any other Related Document, the Issuer irrevocably agrees that it will not assert or claim any immunity on the grounds of sovereignty or other similar grounds (including, without limitation, governmental immunity) from (i) any action, suit or other proceeding arising under or relating to this Agreement or any other Related Document, (ii) relief by way of injunction, order for specific performance or writ of mandamus or (iii) execution or enforcement of any judgment to which it or its revenues might otherwise be entitled in any such action, suit or other proceeding, and the Issuer hereby irrevocably waives, to the fullest extent permitted by applicable law, with respect to itself, the Revenues (irrespective of their use or intended use), all such immunity.

(aa) *Ratings.* (i) Within six (6) months of the Closing Date, the Issuer, at its expense, shall obtain, or cause to be obtained, from at least one Rating Agency, either (A) a rating specifically assigned to Payment Agreement Parity Debt (which may include a rating on the WIFIA Loan Agreement) or (B) a long-term issuer credit rating on the Issuer.

(ii) From and after the date either such rating in the immediately preceding clause (i) is obtained, the Issuer (A) shall maintain either (1) a rating specifically assigned to Payment Agreement Parity Debt (which may include a rating on the WIFIA Loan Agreement) or (2) a long-term issuer credit rating on the Issuer and (B) shall not at any time withdraw any such long term unenhanced rating on its Payment Agreement Parity Debt or any such issuer credit rating from any Rating Agency if the effect of such withdrawal would be to cure a Default or an Event of Default under this Agreement or reduce the Applicable Spread.

(bb) *Swap Contracts.* Without the prior written consent of the Lender, the Issuer shall not enter into any Swap Contracts relating to Debt wherein any termination payments thereunder are senior to or on parity with the payment of any Obligation.

ARTICLE SIX

DEFAULTS

Section 6.1. Events of Default and Remedies. If any of the following events shall occur, each such event shall be an *"Event of Default"*:

(a) The Authority or the Issuer shall fail to pay when due (i) the principal of any Loan or Term Loan or the Note; (ii) the interest on any Loan or Term Loan or the Note; or (iii) any other amount payable hereunder or under the Fee Agreement and, solely with respect to clause (iii) hereof;

(b) (i) The Authority shall default (A) in the due performance or observance of any term, covenant or agreement contained in Section 5.1(a), (b), (c)(i), (e), (f), (g), (h), (k), (l), (m), (n), (p), (t), (v), (w), (y) or (z) hereof; or (B) in the due performance or observance of any other term, covenant or agreement contained in this Agreement or any other Related Document and such default shall remain unremedied for a period of thirty (30) days after the occurrence thereof; or (ii) the Issuer shall default (A) in the due performance or observance of any term, covenant or agreement contained in Section 5.2(a), (b), (c)(i), (e), (f), (g), (h), (k), (l), (m), (n), (p), (t), (v), (w), (y), (z) or (aa) hereof; or (B) in the due performance or observance of any other term, covenant or agreement contained in this Agreement or any other Related Document and such default shall remain unremedied for a period of thirty (30) days after the occurrence thereof;

(c) Any representation, warranty, certification or statement made or deemed made by the Authority or the Issuer in this Agreement, any other Related Document or in any certificate, financial statement or other document delivered to the Lender pursuant to

this Agreement shall be incorrect or untrue in any material respect when made or deemed to have been made or delivered;

(d) (i) The Authority or the Issuer shall (A) default on the payment of the principal of or interest on any Payment Agreement Parity Debt, beyond the period of grace (not to exceed 30 days), if any, provided in the instrument or agreement under which such Payment Agreement Parity Debt was created or incurred; or (B) default in the observance or performance of any agreement or condition relating to any Payment Agreement Parity Debt or contained in any instrument or agreement evidencing, securing or relating thereto, or any other default, event of default or similar event shall occur or condition exist, the effect of which default, event of default or similar event or condition is to permit or cause (determined without regard to whether any notice is required) any such Payment Agreement Parity Debt to become immediately due and payable in full as the result of the acceleration, mandatory redemption or mandatory tender of such Payment Agreement Parity Debt or to otherwise become due prior to its stated maturity; or (ii) the Authority or the Issuer shall (A) default on the payment of the principal of or interest on any Debt (other than Payment Agreement Parity Debt) aggregating in excess of $1,000,000, beyond the period of grace (not to exceed 30 days), if any, provided in the instrument or agreement under which such Debt was created or incurred; or (B) default in the observance or performance of any agreement or condition relating to any Debt (other than Payment Agreement Parity Debt) aggregating in excess of $1,000,000 or contained in any instrument or agreement evidencing, securing or relating thereto, or any other default, event of default or similar event shall occur or condition exist, the effect of which default, event of default or similar event or condition is to permit or cause (determined without regard to whether any notice is required) any such Debt to become immediately due and payable in full as the result of the acceleration, mandatory redemption or mandatory tender of such Debt or to otherwise become due prior to its stated maturity;

(e) The Authority, the Issuer, LVMWD or TWSD shall (i) have entered involuntarily against it an order for relief under the United States Bankruptcy Code, as amended, (ii) become insolvent or shall not pay, or be unable to pay, or admit in writing its inability to pay, its debts generally as they become due, (iii) make an assignment for the benefit of creditors, (iv) apply for, seek, consent to, or acquiesce in, the appointment of a receiver, custodian, trustee, examiner, liquidator or similar official for it or any substantial part of its respective Property, (v) institute any proceeding seeking to have entered against it an order for relief under the United States Bankruptcy Code, as amended, to adjudicate it insolvent, or seeking dissolution, winding up, liquidation, reorganization, arrangement, marshalling of assets, adjustment or composition of it or its debts under any law relating to bankruptcy, insolvency or reorganization or relief of debtors or fail to file an answer or other pleading denying the material allegations of any such proceeding filed against it, (vi) take any corporate action in furtherance of any matter described in parts (i) through (v) above, or (vii) fail to contest in good faith any appointment or proceeding described in Section 6.1(f) of this Agreement;

(f) a custodian, receiver, trustee, examiner, liquidator or similar official shall be appointed for the Authority, the Issuer, LVMWD or TWSD or any substantial part of

its Property, or a proceeding described in Section 6.1(e)(v) shall be instituted against the Authority, the Issuer, LVMWD or TWSD and such proceeding continues undischarged or any such proceeding continues undismissed or unstayed for a period of thirty (30) or more days;

(g) (i) A court of competent jurisdiction or other governmental authority with appropriate jurisdiction over the Authority, the Issuer, LVMWD or TWSD shall enter a final and non-appealable judgment, order or decree declaring any (x) obligation of the Authority or the Issuer contained in this Agreement or any Related Document or (y) Related Document, or material provision thereof, to be invalid, not binding or unenforceable against the Authority or the Issuer; (ii) any action is taken by the Authority, the Issuer, LVMWD or TWSD or any officer of the Authority, the Issuer, LVMWD or TWSD, respectively, to contest the validity or enforceability of this Agreement, any other Related Document or the Authority, the Issuer, LVMWD or TWSD or any officer of the Authority or the Issuer, as applicable, repudiates its obligations under any Related Document or any provision thereof or with respect to any Debt of the Authority or the Issuer secured by or payable from Purchaser Revenues or Revenues senior to or on a parity with the Obligations, or the Authority, the Issuer, LVMWD or TWSD shall seek an adjudication that this Agreement, any other Related Document is not valid and binding; or (iii) any material provision of this Agreement or any other Related Document, other than a provision described in this paragraph (g), shall at any time for any reason cease to be valid and binding on the Authority, the Issuer, LVMWD or TWSD or shall be declared in a final non-appealable judgment by any court with competent jurisdiction to be null and void, invalid, or unenforceable, or the validity or enforceability thereof shall be publicly contested by the Authority, the Issuer, LVMWD or TWSD;

(h) A debt moratorium, debt restructuring, debt adjustment or comparable restriction is imposed on the repayment when due and payable of the principal of or interest on any Debt of the Authority, the Issuer, LVMWD or TWSD by the Authority, the Issuer, LVMWD or TWSD or any Governmental Authority with appropriate jurisdiction;

(i) Dissolution or termination of the existence of the Authority, the Issuer, LVMWD or TWSD;

(j) Any final, unappealable judgment or judgments, writ or writs or warrant or warrants of attachment, order or decree or any similar process or processes, in an aggregate amount not less than $10,000,000 shall be entered or filed against LVMWD, TWSD, the Authority or the Issuer or against any of their respective Property and remain unpaid, unvacated, unbonded or unstayed for a period of sixty (60) days;

(k) Any of the funds or accounts established pursuant to Installment Purchase Agreement or the Payment Agreements or any funds or accounts on deposit, or otherwise to the credit of, such funds or accounts shall become subject to any stay, writ, judgment, warrant of attachment, execution or similar process by any of the creditors of the Authority or the Issuer relating to an obligation or obligations of the Authority or the Issuer, as applicable, in excess of $10,000,000 and such stay, writ, judgment, warrant of attachment,

execution or similar process shall not be released, vacated or stayed within fifteen (15) days after its issue or levy;

(l) Any pledge or security interest created by this Agreement or any Related Document to secure any amount due by the Authority or the Issuer under this Agreement, the Fee Agreement or the Note shall fail to be fully enforceable with the priority required hereunder or thereunder;

(m) (i) Any event which materially and adversely affects the ability of the Authority or the Issuer to observe and perform its obligations under this Agreement or the Fee Agreement shall have occurred and be continuing, (ii) any event which materially and adversely affects the ability of the Authority or the Issuer to observe and perform its obligations under any Related Document shall have occurred and be continuing, (iii) any Related Document shall be amended and such amendment materially and adversely affects the ability of the Authority or the Issuer to observe and perform its obligations under this Agreement or the Fee Agreement or (iv) any event which materially and adversely affects the ability of LVMWD or TWSD to observe and perform its obligations under its respective Payment Agreement shall have occurred and be continuing;

(n) An "event of default" (or similar event) shall have occurred under any of the Related Documents;

(o) There shall be appointed or designated with respect to LVMWD, TWSD, the Authority or the Issuer, an entity such as an organization, board, commission, authority, agency or body to declare a financial emergency or similar state of financial distress with respect to it or there shall be declared by it or by any legislative or regulatory body with competent jurisdiction over it, the existence of a state of financial emergency or similar state of financial distress in respect of it;

(p) The (i) downgrade by any Rating Agency of (A) its long-term unenhanced rating with respect to any Payment Agreement Parity Debt or (B) its long-term issuer credit rating on the Issuer, in any case, to a level below "Baa3" (or its equivalent) in the case of Moody's, "BBB-" (or its equivalent) in the case of S&P or "BBB-" (or its equivalent) in the case of Fitch or (ii) suspension or withdrawal by any Rating Agency of its respective long-term unenhanced rating on any Payment Agreement Parity Debt or issuer credit rating on the Issuer for credit-related reasons.

(q) (i) Any Project Participant shall default in the making of any payment of its Allocated Share when due to the Issuer under (and as defined in) its respective Payment Agreement or (ii) the Authority shall have failed to make written demand upon and notify a Project Participant within one (1) Business Day of any failure of such Project Participant to make any payment in full when due under the related Payment Agreement;

(r) (i) LVMWD shall (A) default on the payment of the principal of or interest on any LVMWD Revenues Debt, beyond the period of grace (not to exceed 30 days), if any, provided in the instrument or agreement under which such LVMWD Revenues Debt

was created or incurred; or (B) default in the observance or performance of any agreement or condition relating to any LVMWD Revenues Debt or contained in any instrument or agreement evidencing, securing or relating thereto, or any other default, event of default or similar event shall occur or condition exist, the effect of which default, event of default or similar event or condition is to permit or cause (determined without regard to whether any notice is required) any such LVMWD Revenues Debt to become immediately due and payable in full as the result of the acceleration, mandatory redemption or mandatory tender of such LVMWD Revenues Debt or to otherwise become due prior to its stated maturity;

(s) LVMWD shall failed to comply with Section 6 of the LVMWD Payment Agreement as modified by Sections 5.1(p) and 5.2(p) hereof, as applicable;

(t) LVMWD shall have issued or incurred any LVMWD Revenues Debt without satisfying the requirements set forth in Section 2(b) of the LVMWD Payment Agreement;

(u) (i) TWSD shall (A) default on the payment of the principal of or interest on any TWSD Revenues Debt, beyond the period of grace (not to exceed 30 days), if any, provided in the instrument or agreement under which such TWSD Revenues Debt was created or incurred; or (B) default in the observance or performance of any agreement or condition relating to any TWSD Revenues Debt or contained in any instrument or agreement evidencing, securing or relating thereto, or any other default, event of default or similar event shall occur or condition exist, the effect of which default, event of default or similar event or condition is to permit or cause (determined without regard to whether any notice is required) any such TWSD Revenues Debt to become immediately due and payable in full as the result of the acceleration, mandatory redemption or mandatory tender of such TWSD Revenues Debt or to otherwise become due prior to its stated maturity;

(v) TWSD shall failed to comply with Section 6 of the TWSD Payment Agreement as modified by Sections 5.1(p) and 5.2(p) hereof, as applicable; or

(w) TWSD shall have issued or incurred any TWSD Revenues Debt without satisfying the requirements of Section 2(b) of the TWSD Payment Agreement.

Section 6.2. Remedies. Upon the occurrence of any Event of Default, the Lender may exercise any one or more of the following rights and remedies in addition to any other remedies herein or by law provided:

(a) declare all Obligations to be immediately due and payable, whereupon the same shall be immediately due and payable without any further notice of any kind, which notice is hereby waived by the Authority or the Issuer; *provided, however*, that in the case of an Event of Default described in Section 6.1(e), 6.1(f) or 6.1(h) hereof, such acceleration shall automatically occur (unless such automatic acceleration is waived by the Lender in writing); or

(b) give notice to the Authority or the Issuer that its obligation to make Loans and Term Loans hereunder is terminated (the Authority or the Issuer hereby acknowledge that upon the occurrence of an Event of Default described in Section 6.1(e), 6.1(f) or 6.1(h) hereof, the Lender's obligation to make Loans and Term Loans shall automatically terminate without the giving of any notice) with respect thereto; or

(c) pursue any rights and remedies it may have under the Related Documents; or

(d) either personally or by attorney or agent without bringing any action or proceeding, or by a receiver to be appointed by a court in any appropriate action or proceeding, take whatever action at law or in equity may appear necessary or desirable to collect the amounts due and payable under the Related Documents or to enforce performance or observance of any obligation, agreement or covenant of the Authority and/or the Issuer under the Related Documents, whether for specific performance of any agreement or covenant of the Authority or in aid of the execution of any power granted to the Lender in the Related Documents.

ARTICLE SEVEN

MISCELLANEOUS

Section 7.1. Amendments, Waivers, Etc. No amendment or waiver of any provision of this Agreement, or consent to any departure therefrom, shall in any event be effective unless the same shall be in writing and signed by the parties hereto, and then such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given.

Section 7.2. Notices. All notices and other communications provided for hereunder (except as provided in Section 2.2(b) hereof) shall be in writing (including required copies) and sent by receipted hand delivery (including Federal Express or other receipted courier service), facsimile transmission, or regular mail, as follows:

(a) if to the Authority:

Las Virgenes-Triunfo Joint Powers Authority
c/o Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, California 91302-1994
Attention: Assistant General Manager
Telephone: (___) _____
Telecopy: (___) _____

(b) If to the Issuer:

Las Virgenes-Triunfo Public Financing Authority
c/o Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, California 91302-1994
Attention: Assistant General Manager
Telephone: (___) _____
Telecopy: (___) _____

(c) if to the Lender, with respect to the Loans:

Wells Fargo Municipal Capital Strategies, LLC
_____
Attention:
Telephone:
Email:

(d) if to the Lender, with respect to all matters:

Attention:
Telephone:
Email:

With a copy to:

Attention:
Telephone:
Email:

or, as to each Person named above, at such other address as shall be designated by such Person in a written notice to the parties hereto. All such notices and other communications shall, when delivered, sent by facsimile transmission or mailed, be effective when deposited with the courier, sent by facsimile transmission or mailed respectively, addressed as aforesaid, except that Notices of Borrowings submitted to the Lender shall not be effective until received by the Lender.

Section 7.3. Survival of Covenants; Successors and Assigns. (a) All covenants, agreements, representations, and warranties made herein and in the certificates delivered pursuant hereto shall survive the making of any Loan and Term Loan hereunder and shall continue in full force and effect until the Commitment and this Agreement shall have terminated and all of the Obligations hereunder shall have been paid in full. Whenever in this Agreement any of the parties hereto is referred to, such reference shall, subject to the last sentence of this Section 7.3, be deemed to include the successors and assigns of such party, and all covenants, promises and agreements by or on behalf of the Authority and the Issuer which are contained in this Agreement shall inure to the benefit of the successors and assigns of the Lender and the Noteholders, and their respective permitted successors, transferees and assigns as set forth herein. The Authority and the Issuer may not transfer their respective rights or obligations under this Agreement without the prior written consent of the Lender. Except as otherwise expressly permitted by this Section 7.3 and Section 7.18 hereof, neither the Lender nor any Noteholder may transfer its rights or obligations under this

Agreement or the Note without the prior written consent of the Authority and the Issuer. This Agreement is made solely for the benefit of the Authority, the Issuer and the Lender, and no other Person shall have any right, benefit or interest under or because of the existence of this Agreement.

(b) Notwithstanding the foregoing, the Lender and each Noteholder shall be permitted to grant to one or more financial institutions (each a "*Participant*") a participation or participations in all or any part of the Lender's or such Noteholder's rights and benefits and obligations under this Agreement, the Note and the Commitment on a participating basis but not as a party to this Agreement (a "*Participation*") without the consent of the Authority and the Issuer. In the event of any such grant by the Lender or a Noteholder of a Participation to a Participant, the Lender and such Noteholder shall remain responsible for the performance of its obligations hereunder, and the Authority and the Issuer shall continue to deal solely and directly with the Lender in connection with the Lender's rights and obligations under this Agreement. The Authority and the Issuer agree that each Participant shall, to the extent of its Participation, be entitled to the benefits of this Agreement as if such Participant were the Lender or such Noteholder, *provided* that no Participant shall have the right to declare, or to take actions in response to, an Event of Default under Section 6.1 hereof; *provided further* that the Authority's and the Issuer's liability to any Participant shall not in any event exceed that liability which the Authority and the Issuer would owe to the Lender but for such participation.

(c) *Noteholders Generally*. (i) Each Noteholder may, in its sole discretion and in accordance with applicable law, from time to time assign, sell or transfer in whole or in part, this Agreement, its interest in the Note and the Related Documents in accordance with the provisions of paragraph (ii) or (iii) of this subsection (c). Each Noteholder may at any time and from time to time enter into participation agreements in accordance with the provisions of paragraph (b) of this Section 7.3. Each Noteholder may at any time pledge or assign a security interest subject to the restrictions of Section 7.18 hereof. Wells Fargo Municipal Capital Strategies, LLC shall be the Lender hereunder until such time as the Majority Noteholder designates an alternate Person to serve as the Lender hereunder by delivery of written notice to the Authority and the Issuer and such Person accepts and agrees to act as the Lender hereunder and under the Related Documents. The Majority Noteholder may so designate an alternate Person that is an owner of the Note to act as the Lender from time to time. Upon acceptance and notification thereof to the Authority and the Issuer, the successor to the Lender for such purposes shall thereupon succeed to and become vested with all of the rights, powers, privileges and responsibilities of the Lender, and Wells Fargo Municipal Capital Strategies, LLC or any other Person being replaced as the Lender shall be discharged from its duties and obligations as the Lender hereunder. Notwithstanding anything to the contrary set forth herein, Wells Fargo Municipal Capital Strategies, LLC may not assign its obligations to advance or make Loans or Term Loans pursuant to the terms of this Agreement without the prior written consent of the Authority and the Issuer (such consent not to be unreasonably withheld) and the Authority's and the Issuer's liability to any successor Lender or to any Noteholder shall not in any event exceed that liability which the Authority and the Issuer would have owed to Wells Fargo Municipal Capital Strategies, LLC but for any such assignment, sale or transfer, in whole or in part, of this Agreement, its interest in the Note or the Related Documents. In addition, if the Lender makes any Loan or Term Loan hereunder, the Lender has no present intent to assign or sell any such Loan or Term Loan and all or any portion of the Note relating thereto.

(ii) *Sales and Transfers by Noteholder to a Lender Transferee.* Without limitation of the foregoing generality, a Noteholder may at any time sell or otherwise transfer to one or more transferees all or a portion of the Loans, the Term Loans and/or the Note to a Person that is (A) a Lender Affiliate or (B) a trust or other custodial arrangement established by the Lender or a Lender Affiliate, the owners of any beneficial interest in which are limited to "qualified institutional buyers" as defined in Rule 144A promulgated under the 1933 Act (each, a *"Lender Transferee"*). From and after the date of such sale or transfer, Wells Fargo Municipal Capital Strategies, LLC (and its successors) shall continue to have all of the rights of the Lender hereunder and under the other Related Documents as if no such transfer or sale had occurred; *provided, however*, that (x) no such sale or transfer referred to in clause (ii)(A) or (ii)(B) hereof shall in any way affect the obligations of the Lender hereunder, (y) the Authority and the Issuer shall be required to deal only with the Lender with respect to any matters under this Agreement and (z) in the case of a sale or transfer referred to in clause (b)(i) or (b)(ii) hereof, only the Lender shall be entitled to enforce the provisions of this Agreement against the Authority and the Issuer.

(iii) *Sales and Transfers by Noteholder to a Non-Lender Transferee.* Without limitation of the foregoing generality, a Noteholder may at any time sell or otherwise transfer all or a portion of the Loans, the Term Loans and/or the Note to one or more transferees which are not Lender Transferees but each of which constitutes (A) a "qualified institutional buyer" as defined in Rule 144A promulgated under the 1933 Act and (B) a commercial bank organized under the laws of the United States, or any state thereof, or any other country which is a member of the Organization for Economic Cooperation and Development, or a political subdivision of any such country, and, in any such case, having a combined capital and surplus, determined as of the date of any transfer pursuant to this clause (iii), of not less than $5,000,000,000 (each a *"Non-Lender Transferee"*) all or a portion of the Note if (1) written notice of such sale or transfer, including that such sale or transfer is to a Non-Lender Transferee, together with addresses and related information with respect to the Non-Lender Transferee, shall have been given to the Authority , the Issuer and the Lender (if different than the Noteholder) by such selling Noteholder and Non-Lender Transferee and (2) the Non-Lender Transferee shall have delivered to the Authority, the Issuer and the selling Noteholder, an investment letter in substantially the form delivered by the Lender on the Closing Date (the *"Investor Letter"*); *provided, however*, that any such sale or transfer shall be in a minimum amount of $250,000.

From and after the date the Authority , the Issuer and the selling Noteholder have received written notice and an executed Investor Letter for such Non-Lender Transferee, (A) the Non-Lender Transferee thereunder shall be a party hereto and shall have the rights and obligations of a Noteholder hereunder and under the other Related Documents, and this Agreement shall be deemed to be amended to the extent, but only to the extent, necessary to effect the addition of the Non-Lender Transferee, and any reference to the assigning Noteholder hereunder and under the other Related Documents shall thereafter refer to such transferring Noteholder and to the Non-Lender Transferee to the extent of their respective interests, and (B) if the transferring Noteholder no longer owns the Note, then it shall relinquish its rights and be released from its obligations hereunder and under the Related Documents.

Section 7.4. Unconditional Obligations. The obligations of the Authority and the Issuer under this Agreement and the Fee Agreement shall be primary, absolute, independent,

unconditional and irrevocable and shall be paid and performed strictly in accordance with the terms of this Agreement and the Fee Agreement, including without limitation the following circumstances:

(a) Any lack of validity or enforceability of the Related Documents or any other agreement or instrument relating to any of the above;

(b) Any amendment or waiver of, or any consent to or departure from, any provision of any of the Related Documents, except for any waiver or consent granted by the Lender;

(c) The existence of any claim, setoff, defense or other rights that the Authority and the Issuer may have at any time against the Lender or any other Person, whether in connection with this Agreement, the Related Documents or any unrelated transaction;

(d) Any breach of contract or other dispute between the Authority and the Issuer and any Noteholder, the Lender or any other Person;

(e) Any demand, statement or any other document presented hereunder proving to have been forged, fraudulent, invalid or insufficient in any respect or any statement therein being untrue or inaccurate in any respect whatsoever;

(f) Payment by the Lender hereunder against presentation of a draft or certificate which does not comply strictly with the terms of this Agreement; or

(g) The failure by the Lender to honor any Notice of Borrowing hereunder or to make any payment demanded hereunder on the grounds that the demand for such payment does not conform strictly to the terms and conditions of this Agreement.

Section 7.5. Liability of Lender; Indemnification. (a) (i) Except as provided in this Agreement, the Lender shall not be obligated to issue any further credits, to cure any defaults under any Related Document or otherwise, or in any other manner to extend any financial consideration or accommodation to the Authority and the Issuer.

(ii) The Lender shall not be deemed to have waived or released any of its rights or remedies (whether specified in or arising under this Agreement, the Fee Agreement or otherwise available to it by law or agreement) unless the Lender shall have signed a written waiver or release. Delay or failure to act on the Lender's part shall not constitute a waiver of or otherwise preclude enforcement of any of their rights and remedies. All of the Lender's rights and remedies shall be cumulative and may be exercised separately or concurrently. The Lender need not resort to any particular right or remedy before exercising or enforcing any other, and the Lender's resort to any right or remedy shall not preclude the exercise or enforcement of any other right or remedy.

(iii) Neither the Lender nor any of its officers, directors, employees or agents shall be liable or responsible for:

(A) The use that may be made of the Commitment or the Loans or Term Loans;

(B) The form, validity, sufficiency, accuracy or genuineness of documents, or of any endorsements thereon, even if such documents should prove to be in any or all respects invalid, insufficient, inaccurate, fraudulent or forged, so long as the Lender was not grossly negligent or guilty of willful misconduct as determined by a court of competent jurisdiction;

(C) Payment by the Lender against presentation of documents that do not comply strictly with the terms of this Agreement, including failure of any documents to bear any reference or adequate reference to this Agreement;

(D) The validity or sufficiency of any instrument transferring or assigning or purporting to transfer or assign this Agreement or the rights or benefits thereunder or proceeds thereof, in whole or in part, which may prove to be invalid or ineffective for any reason;

(E) Errors, omissions, interruptions or delays in transmission or delivery of any messages by telex, mail, cable, telegraph, facsimile or otherwise, whether or not they have been in cipher, including any Notices of Borrowing under this Agreement;

(F) Errors in interpretation of technical terms; or

(G) Any consequences arising from causes beyond the control of the Lender, including, without limitation, any Government Acts;

provided that, notwithstanding anything in the preceding clauses (A) through (G) to the contrary, the Authority and the Issuer shall have a claim against the Lender, and the Lender shall be liable to the Authority and the Issuer, to the extent, but only to the extent, of any direct, as opposed to consequential, damages suffered by the Authority and the Issuer that the Authority and the Issuer prove were caused by (A) the Lender's failure to pay under this Agreement after the presentation to it by the Authority and the Issuer of a certificate strictly complying with the terms and conditions of this Agreement or (B) the Lender's willful or grossly negligent payment under this Agreement as determined by a court of competent jurisdiction in a final non-appealable judgment.

In furtherance and not in limitation of the foregoing, the Lender may accept documents that appear on their face to be in order, without responsibility for further investigation, regardless of any notice or information to the contrary.

(b) (i) To the maximum extent permitted by applicable law, each of the Authority and the Issuer agree to indemnify, save and hold harmless each Lender-Related Person from and against: (A) any and all claims, damages, losses, liabilities, reasonable costs or expenses whatsoever (including reasonable attorneys' fees) which may incur or which may be claimed against an

Indemnitee by any Person or entity whatsoever or that may at any time (including at any time following repayment of the Obligations) be asserted or imposed against any Lender-Related Person arising out of or relating to this Agreement, the Loans and Term Loans, the Fee Agreement or any Related Document, the use or contemplated use of the proceeds of any Loan or Term Loan, or the relationship of the Authority or the Issuer and the Lender under this Agreement or any Related Document; (B) any investigative, administrative or judicial proceeding by any Governmental Authority arising out of or related to a claim, demand, action or cause of action described in subsection (A) above; and (C) any and all liabilities (including liabilities under indemnities), losses, costs or expenses (including attorney costs) that any Lender-Related Person suffers or incurs as a result of the assertion of any foregoing claim, demand, action, cause of action or proceeding, or as a result of the preparation of any defense in connection with any foregoing claim, demand, action, cause of action or proceeding, in all cases, and whether or not a Lender-Related Person is a party to such claim, demand, action, cause of action or proceeding; *provided* that no Lender-Related Person shall be entitled to indemnification for any claim caused by its own gross negligence or willful misconduct as determined by a court of competent jurisdiction in a final non-appealable judgment. The agreements in this subsection shall survive the termination of this Agreement and repayment of all of the Obligations.

(ii) To the fullest extent permitted by applicable law, the Authority and the Issuer shall not assert, and hereby waive, and acknowledges that no other Person shall have, any claim against any Lender-Related Person, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement, any other Related Document or any agreement or instrument contemplated hereby, the transactions contemplated hereby or thereby, the making of Loans and Term Loans by the Lender or the use of the proceeds thereof. No Lender-Related Person referred to in this Section 7.5 above shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed to such unintended recipients by such Lender-Related Person through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Related Documents or the transactions contemplated hereby or thereby other than for direct or actual damages resulting from the gross negligence or willful misconduct of such Lender-Related Person as determined by a final and non-appealable judgment of a court of competent jurisdiction.

(iii) To the maximum extent permitted by applicable law, the Authority and the Issuer shall also indemnify and hold harmless the Lender from any transfer taxes, documentary taxes, assessments or charges made by any Governmental Authority by reason of the execution and delivery of this Agreement and the Related Documents or the making available of the Commitment The agreements in this subsection shall survive the termination of this Agreement and repayment of all of the Obligations.

Section 7.6. Expenses. The Authority and the Issuer will promptly pay (i) the reasonable fees and expenses of counsel to the Lender incurred in connection with the preparation, execution and delivery of this Agreement and the other Related Documents, (ii) the reasonable out-of-pocket expenses of the Lender incurred in connection with the preparation, execution and delivery of this Agreement and the other Related Documents, (iii) the reasonable fees and disbursements of counsel to the Lender with respect to advising the Lender as to the rights and responsibilities under

this Agreement after the occurrence of an Event of Default and (iv) all reasonable costs and expenses, if any, in connection with the administration and enforcement of this Agreement and the Related Documents and any other documents which may be delivered in connection herewith or therewith, including in each case the fees and disbursements of counsel to the Lender. In addition, the Authority and the Issuer agree to pay, after the occurrence of an Event of Default, all reasonable costs and expenses (including attorneys' and consultants' fees and costs of settlement) incurred by the Lender in enforcing any obligations or in collecting any payments due from the Authority and the Issuer hereunder by reason of such Event of Default or in connection with any refinancing or restructuring of the credit arrangements provided under this Agreement in the nature of a "workout" or of any insolvency or bankruptcy proceedings. The obligations of the Authority and the Issuer under this Section 7.6 shall survive the termination of this Agreement.

Section 7.7. No Waiver; Conflict. No failure by the Lender to exercise, and no delay or omission by the Lender in exercising any right, power or privilege hereunder, nor any course of dealing with respect to any of the same, shall operate as a waiver thereof, preclude any other or further exercise thereof nor shall a single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power, or privilege. No delay or omission by the Lender in the exercise of any right, remedy or power or in the pursuit of any remedy shall impair any such right remedy or power or be construed to be a waiver of any default on the part of the Purchaser or to be acquiescence therein. The rights, remedies, powers and privileges herein provided and provided under each other Related Document (whether specifically herein given or otherwise existing) are cumulative, nonexclusive and concurrent and not exclusive of any rights, remedies, powers and privileges provided by law. Every right, power and remedy (whether specifically herein given or otherwise existing) may be exercised from time to time and as often and in such order as may be deemed expedient by the Lender. No express or implied waiver by the Lender of any Default or Event of Default shall in any way be a waiver of any future or subsequent Default or Event of Default. In case the Lender shall proceed to invoke any right, remedy or recourse permitted hereunder or under the Related Documents and shall thereafter elect to discontinue or abandon the same for any reason, the Lender shall have the unqualified right so to do and, in such event, the Authority, the Issuer and the Lender shall be restored to their former positions with respect to the Obligations, the Related Documents and otherwise, and the rights, remedies, recourse and powers of the Lender hereunder shall continue as if the same had never been invoked. The rights and remedies of the Lender specified herein are for the sole and exclusive benefit, use and protection of the Lender, and the Lender is entitled, but shall have no duty or obligation to the Authority, the Issuer or any other Person or otherwise, to exercise or to refrain from exercising any right or remedy reserved to the Lender hereunder or under any of the other Related Documents.

Section 7.8. Modification, Amendment, Waiver, Etc. No modification, amendment or waiver of any provision of this Agreement shall be effective unless the same shall be in writing and signed in accordance with Section 7.1 hereof.

Section 7.9. Dealing with the Authority and the Issuer. The Lender and its affiliates may accept deposits from, extend credit to and generally engage in any kind of banking, trust or other business with the Authority and the Issuer regardless of the capacity of the Lender hereunder.

Section 7.10. Severability. Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or affecting the validity or enforceability of such provision in any other jurisdiction, and all other remaining provisions hereof will be construed to render them enforceable to the fullest extent permitted by law.

Section 7.11. Counterparts; Integration; Effectiveness; Electronic Execution. (a) *Counterparts; Integration; Effectiveness*. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Agreement and the other Related Documents, and any separate letter agreements with respect to fees payable to the Lender, constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. Except as provided in Section 3.1, this Agreement shall become effective when it shall have been executed by the Lender and when the Lender shall have received counterparts hereof that, when taken together, bear the signatures of each of the other parties hereto. Delivery of an executed counterpart of a signature page of this Agreement by facsimile or in electronic (i.e., "pdf" or "tif") format shall be effective as delivery of a manually executed counterpart of this Agreement.

(b) *Electronic Execution*. The words "execute," "execution," "signed," "signature," "delivery" and words of like import in or related to this Agreement, any other Related Document or any document, amendment, approval, consent, waiver, modification, information, notice, certificate, report, statement, disclosure, or authorization to be signed or delivered in connection with this Agreement or any other Related Document or the transactions contemplated hereby shall be deemed to include Electronic Signatures or execution in the form of an Electronic Record, and contract formations on electronic platforms approved by the Lender, deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any Applicable Law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act. Each party hereto agrees that any Electronic Signature or execution in the form of an Electronic Record shall be valid and binding on itself and each of the other parties hereto to the same extent as a manual, original signature. For the avoidance of doubt, the authorization under this paragraph may include, without limitation, use or acceptance by the parties of a manually signed paper which has been converted into electronic form (such as scanned into PDF format), or an electronically signed paper converted into another format, for transmission, delivery and/or retention. Notwithstanding anything contained herein to the contrary, the Lender is under no obligation to accept an Electronic Signature in any form or in any format unless expressly agreed to by the Lender pursuant to procedures approved by it; *provided* that without limiting the foregoing, (i) to the extent the Lender has agreed to accept such Electronic Signature from any party hereto, the Lender and the other parties hereto shall be entitled to rely on any such Electronic Signature purportedly given by or on behalf of the executing party without further verification and (ii) upon the request of the Lender, any Electronic Signature shall be promptly followed by an original manually executed counterpart thereof. Without limiting the generality of the foregoing, each

party hereto hereby (A) agrees that, for all purposes, including without limitation, in connection with any workout, restructuring, enforcement of remedies, bankruptcy proceedings or litigation among the Lender and any of the other parties hereto, electronic images of this Agreement or any other Related Document (in each case, including with respect to any signature pages thereto) shall have the same legal effect, validity and enforceability as any paper original, and (B) waives any argument, defense or right to contest the validity or enforceability of the Related Documents based solely on the lack of paper original copies of any Related Documents, including with respect to any signature pages thereto.

Section 7.12. Table of Contents; Headings. The table of contents and the section and subsection headings used herein have been inserted for convenience of reference only and do not constitute matters to be considered in interpreting this Agreement.

Section 7.13. Entire Agreement. THIS AGREEMENT REPRESENTS THE FINAL AGREEMENT BETWEEN THE PARTIES HERETO WITH RESPECT TO THE SUBJECT MATTER HEREOF AND MAY NOT BE CONTRADICTED BY EVIDENCE OF PRIOR, CONTEMPORANEOUS, OR SUBSEQUENT ORAL AGREEMENTS OF THE PARTIES HERETO AS TO SUCH SUBJECT MATTER.

Section 7.14. Governing Law. THIS AGREEMENT SHALL BE DEEMED TO BE A CONTRACT UNDER, AND SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF CALIFORNIA AND APPLICABLE FEDERAL LAW.

Section 7.15. Waiver of Jury Trial. (a) TO THE FULL EXTENT PERMITTED BY LAW, THE AUTHORITY, THE ISSUER AND THE LENDER EACH WAIVE THEIR RESPECTIVE RIGHTS TO A TRIAL BY JURY FOR ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF OR RELATED TO THIS AGREEMENT, THE FEE AGREEMENT, ANY OF THE OTHER RELATED DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY. EACH OF THE AUTHORITY, THE ISSUER AND THE LENDER FURTHER AGREES THAT ANY SUCH CLAIM OR CAUSE OF ACTION SHALL BE TRIED BY A COURT TRIAL WITHOUT JURY. WITHOUT LIMITING THE FOREGOING, TO THE EXTENT PERMITTED BY LAW, THE PARTIES FURTHER AGREE THAT THEIR RESPECTIVE RIGHT TO A TRIAL BY JURY IS WAIVED BY OPERATION OF THIS SECTION 7.15 AS TO ANY ACTION, COUNTERCLAIM OR OTHER PROCEEDING WHICH SEEKS, IN WHOLE OR IN PART, TO CHALLENGE THE VALIDITY OR ENFORCEABILITY OF THIS AGREEMENT, THE FEE AGREEMENT, AND/OR ANY PROVISION HEREOF OR THEREOF. THIS WAIVER SHALL APPLY TO ANY SUBSEQUENT AMENDMENTS, RENEWALS, SUPPLEMENTS OR MODIFICATIONS TO THIS AGREEMENT AND/OR THE FEE AGREEMENT.

(b) IF AND TO THE EXTENT THAT THE FOREGOING WAIVER OF THE RIGHT TO A JURY TRIAL IS UNENFORCEABLE FOR ANY REASON IN SUCH FORUM, EACH OF THE PARTIES HERETO HEREBY CONSENTS TO THE ADJUDICATION OF ALL CLAIMS PURSUANT TO JUDICIAL REFERENCE AS PROVIDED IN CALIFORNIA CODE OF CIVIL PROCEDURE SECTION 638, AND THE JUDICIAL REFEREE SHALL BE EMPOWERED TO HEAR AND DETERMINE ALL ISSUES IN SUCH REFERENCE, WHETHER FACT OR LAW. EACH OF THE PARTIES HERETO REPRESENTS THAT EACH HAS REVIEWED THIS WAIVER AND CONSENT AND EACH KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS AND CONSENTS TO JUDICIAL REFERENCE FOLLOWING CONSULTATION WITH LEGAL COUNSEL ON SUCH MATTERS. IN THE EVENT OF LITIGATION, A COPY OF THIS AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A

TRIAL BY THE COURT OR TO JUDICIAL REFERENCE UNDER CALIFORNIA CODE OF CIVIL PROCEDURE SECTION 638 AS PROVIDED HEREIN.

(c) The covenants and waivers made pursuant to this Section 7.15 shall be irrevocable and unmodifiable, whether in writing or orally.

Section 7.16. Right of Setoff; Other Collateral. (a) Upon the occurrence and during the continuance of an Event of Default, the Lender is hereby authorized at any time and from time to time without notice to the Authority or the Issuer (any such notice being expressly waived by the Authority and the Issuer), and to the fullest extent permitted by law, to setoff, to exercise any banker's lien or any right of attachment and apply any and all balances, credits, deposits (general or special, time or demand, provisional or final), accounts or monies at any time held and other indebtedness at any time owing by the Lender to or for the account of the Authority and the Issuer (irrespective of the currency in which such accounts, monies or indebtedness may be denominated and the Lender is authorized to convert such accounts, monies and indebtedness into United States dollars) against any and all of the Obligations of the Authority and the Issuer, whether or not the Lender shall have made any demand for any amount owing to the Lender by the Authority and the Issuer.

(b) The rights of the Lender under this Section 7.16 are in addition to, in augmentation of, and, except as specifically provided in this Section 7.16, do not derogate from or impair, other rights and remedies (including, without limitation, other rights of setoff) which the Lender may have hereunder or under the other Related Documents.

Section 7.17. USA Patriot Act. The Lender hereby notifies the Authority and the Issuer that, pursuant to the requirements of the USA Patriot Act (Title III of Pub. L. 107 56 signed into law October 26, 2001) (the "*Patriot Act*") or any other Anti-Money Laundering Laws, it is required to obtain, verify and record information that identifies the Authority and the Issuer, which information includes the name and address of the Authority and the Issuer and other information that will allow the Lender to identify the Authority and the Issuer in accordance with applicable "know your customer" and anti-money-laundering rules and regulations, including, without limitation, the Patriot Act or such Anti-Money Laundering Laws. The Authority and the Issuer hereby agree that it shall promptly provide such information upon request by the Lender.

Section 7.18. Assignment to Federal Reserve Bank. The Lender and each other Noteholder may assign and pledge all or any portion of the Obligations owing to it to any Federal Reserve Bank or the United States Treasury, including, without limitation, as collateral security pursuant to Regulation A of the Board of Governors of the Federal Reserve System and any Operating Circular issued by such Federal Reserve Bank or to any state or local governmental entity or with respect to public deposits; *provided* that any payment in respect of such assigned Obligations made by the Authority and the Issuer or on its behalf to the Lender in accordance with the terms of this Agreement shall satisfy the Authority's and the Issuer's Obligations hereunder in respect of such

assigned Obligation to the extent of such payment. No such assignment shall release the Lender from its obligations hereunder.

Section 7.19. No Advisory or Fiduciary Relationship. In connection with all aspects of each transaction contemplated hereby (including in connection with any amendment, waiver or other modification hereof or of any other Related Document), each of the Authority and the Issuer acknowledges and agrees that: (a) (i) the services regarding this Agreement provided by the Lender and any Affiliate thereof are arm's-length commercial transactions between the Authority and the Issuer, on the one hand, and the Lender and its Affiliates, on the other hand, (ii) the Authority and the Issuer have consulted their own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate, and (iii) the Authority and the Issuer are capable of evaluating, and understands and accepts, the terms, risks and conditions of the transactions contemplated hereby and by the other Related Documents; (b) (i) the Lender and its Affiliates each is and has been acting solely as a principal and, except as expressly agreed in writing by the relevant parties, has not been, is not, and will not be acting as an advisor, agent or fiduciary pursuant to Section 15B of the Securities Exchange Act of 1934 or otherwise, for the Authority and the Issuer or any other Person and (ii) neither the Lender nor any of its Affiliates has any obligation to the Authority and the Issuer with respect to the transactions contemplated hereby except those obligations expressly set forth herein and in the other Related Documents; and (c) the Lender and its Affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Authority and the Issuer, and neither the Lender nor any of its Affiliates has any obligation to disclose any of such interests to the Authority and the Issuer. To the fullest extent permitted by Law, each of the Authority and the Issuer hereby waives and releases any claims that it may have against the Lender or any of its Affiliates with respect to any breach or alleged breach of agency or fiduciary duty in connection with any aspect of any transactions contemplated hereby.

Section 7.20. EMMA Postings. In the event the Authority or the Issuer files with EMMA, this Agreement, any Related Documents or any description of the material terms thereof or notice of any agreement to covenants, events of default, remedies, priority rights or other similar terms with respect thereto, either voluntarily or as required pursuant a continuing disclosure agreement or Rule 15c2-12 promulgated pursuant to the Securities and Exchange Act of 1934, as amended (the *"Rule"*) (each such posting, an *"EMMA Posting"*), the Authority and the Issuer shall (i) provide the Lender with a copy of each EMMA Posting prior to submitting or posting on EMMA and (ii) shall not file or permit the filing of any EMMA Posting that includes Confidential Information. Each of the Authority and the Issuer acknowledges and agrees that although the Lender may request or review edits or redactions of such materials prior to filing, the Lender is not responsible for the Authority's, the Issuer's or any other entity's (including, but not limited to, any broker-dealer's) compliance or noncompliance (or any claims, losses or liabilities arising therefrom) with any continuing disclosure agreement or any applicable securities or other laws, including, but not limited to, those relating to the Rule.

Section 7.21. US QFC Stay Rules.

(a) *Recognition of U.S. Resolution Regimes*. In the event that any party that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer of

this Agreement (and any interest and obligation in or under this Agreement and any property securing this Agreement) from such Covered Entity will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement (and any such interest, obligation and property) were governed by the laws of the United States or a state of the United States. In the event that any party that is a Covered Entity or a BHC Act Affiliate of such party becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights against such party with respect to this Agreement are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States. The requirements of this paragraph (a) apply notwithstanding the provisions of paragraph (b).

(b) *Limitation on the Exercise of Certain Rights Related to Affiliate Insolvency Proceedings*. Notwithstanding anything to the contrary in this Agreement or any related agreement, but subject to the requirements of paragraph (a), no party to this Agreement shall be permitted to exercise any Default Right against a party that is a Covered Entity with respect to this Agreement that is related, directly or indirectly, to a BHC Act Affiliate of such Covered Entity becoming subject to Insolvency Proceedings, except to the extent the exercise of such Default Right would be permitted under 12 C.F.R. § 252.84, 12 C.F.R. § 47.5, or 12 C.F.R. § 382.4, as applicable. After a BHC Act Affiliate of a party that is a Covered Entity has become subject to Insolvency Proceedings, any party that seeks to exercise a Default Right against such Covered Entity with respect to this Agreement shall have the burden of proof, by clear and convincing evidence, that the exercise of such Default Right is permitted hereunder.

"*BHC Act Affiliate*" of a party means an "affiliate" (as such term is defined under, and interpreted in accordance with, 12 U.S.C. 1841(k)) of such party.

"*Covered Entity*" means any of the following:

(a) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b);

(b) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or

(c) a "covered FSI" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

"*Default Right*" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

"*Insolvency Proceeding*" means a receivership, insolvency, liquidation, resolution, or similar proceeding.

"*U.S. Special Resolution Regime*" means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

Section 7.22. Treatment of Certain Information; Confidentiality. The Lender agrees to maintain the confidentiality of the Information (as defined below), except that Information may be disclosed (a) to its Affiliates and to its and its Affiliates' respective Related Parties in connection with the Loans, this Agreement, the transactions contemplated hereby or in connection with marketing of services by such Affiliate or Related Party to the Authority and the Issuer or any of their Subsidiaries (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential), (b) to the extent required or requested by, or required to be disclosed to, any regulatory or similar authority purporting to have jurisdiction over such Person or its Related Parties (including any self-regulatory authority, such as the National Association of Insurance Commissioners) or in accordance with the Lender's regulatory compliance policy if the Lender deems such disclosure to be necessary for the mitigation of claims by those authorities against the Lender or any of its Related Parties (in which case, the Lender shall use commercially reasonable efforts to, except with respect to any audit or examination conducted by bank accountants or any governmental bank regulatory authority exercising examination or regulatory authority, promptly notify the Authority and the Issuer, in advance, to the extent practicable and otherwise permitted by Applicable Law), (c) as to the extent required by Applicable Laws or regulations or in any legal, judicial, administrative proceeding or other compulsory process, (d) to any other party hereto, (e) in connection with the exercise of any remedies under this Agreement, or under any other Related Document, or any action or proceeding relating to this Agreement or any other Related Document, or the enforcement of rights hereunder or thereunder, (f) subject to an agreement containing provisions substantially the same as those of this Section 7.22, to (i) any assignee of or Participant in, or any prospective assignee of or Participant in, any of its rights and obligations under this Agreement and, in each case, their respective financing sources, (ii) any actual or prospective party (or its Related Parties) to any swap, derivative or other transaction under which payments are to be made by reference to the Authority and the Issuer and their obligations, this Agreement or payments hereunder, or (iii) a nationally recognized rating agency that requires access to information regarding the Authority and the Issuer and their Subsidiaries, the Loans and the Related Documents, (g) on a confidential basis to (i) any rating agency in connection with rating the Authority and the Issuer or their Subsidiaries or the Loans or (ii) the CUSIP Service Bureau or any similar agency in connection with the issuance and monitoring of CUSIP numbers with respect to the Loans, (h) with the consent of the Authority and the Issuer, (i) deal terms and other information customarily reported to Thomson Reuters, other bank market data collectors and similar service providers to the lending industry and service providers to the Lender in connection with the administration of the Related Documents, (j) to the extent such Information (i) becomes publicly available other than as a result of a breach of this Section 7.22 or (ii) becomes available to the Lender or any of its respective Affiliates from a third party that is not, to such Person's knowledge, subject to confidentiality obligations to the Authority and the Issuer, (k) to the extent that such information is independently developed by such Person, (l) to the extent required by an insurance company in connection with providing insurance coverage or providing reimbursement pursuant to this Agreement or (m) for purposes of establishing a "due diligence" defense. For purposes of this Section 7.22, "*Information*" means all information received from the Authority and the Issuer or any Subsidiary thereof relating to the Authority and the Issuer or any Subsidiary thereof or any of their respective businesses, other than any such information that is available to the Lender on a nonconfidential basis prior to disclosure by the Authority and the Issuer or any Subsidiary thereof; *provided* that, in the case of information received from the Authority and the

Issuer or any Subsidiary thereof after the date hereof, such information is clearly identified at the time of delivery as confidential. Any Person required to maintain the confidentiality of Information as provided in this Section 7.22 shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information.

Section 7.23. Waiver of Rule of Construction. The Authority and the Issuer each hereby waive any and all provisions of law to the effect that an ambiguity in a contract or agreement should be interpreted against the party responsible for its drafting.

Section 7.24. Acknowledgement and Appointment as the Calculation Agent. Wells Fargo Bank, National Association hereby acknowledges and accepts its appointment as Calculation Agent hereunder and acknowledges, accepts and agrees to all the duties and obligations of the Calculation Agent set forth herein.

[Execution Page Follows]

IN WITNESS WHEREOF, the Authority, the Issuer and the Lender have duly executed this Agreement as of the date first above written.

LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY

By:_____
[NAME], Chair of the Board

ATTEST:

_____
[NAME], Secretary of the Board

LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY

By:_____
[NAME], Chair of the Board

ATTEST:

_____
[NAME], Secretary of the Board

WELLS FARGO MUNICIPAL CAPITAL STRATEGIES, LLC

By: _____
Name: _____
Title: _____

Acknowledged and Agreed as to Section 7.24
of the Credit Agreement.

WELLS FARGO BANK, NATIONAL ASSOCIATION,
as Calculation Agent

By_____
Name: _____
Title: _____

EXHIBIT A

FORM OF NOTE

THE TRANSFERABILITY OF THIS NOTE IS RESTRICTED AS DESCRIBED IN SECTION 7.3 OF THE CREDIT AGREEMENT

LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY
[TAX-EXEMPT NOTE (WELLS FARGO CREDIT AGREEMENT)]

[_____], 2026 $[_____]

The Las Virgenes-Triunfo Public Financing Authority (the *"Issuer"*), for value received, hereby promise to pay to the order of Wells Fargo Municipal Capital Strategies, LLC (the *"Lender"*), pursuant to the Credit Agreement dated as of [_____], 2026 (as amended, restated, supplemented or otherwise modified from time to time in accordance with the terms thereof, the *"Credit Agreement"*), among Las Virgenes-Triunfo Joint Powers Authority (the *"Authority"*), the Issuer and the Lender and that certain Fee Agreement dated [_____], 2026 (as amended, restated, supplemented or otherwise modified from time to time in accordance with the terms thereof, the *"Fee Agreement"*), [between] [among] the Authority, the Issuer and the Lender, at the office of the Lender at [_____] (or such other address as designated by the Lender to the Authority and the Issuer in writing), the aggregate unpaid principal amount of all Obligations (as defined in the Credit Agreement) pursuant to the Credit Agreement and the Fee Agreement on the dates and in the amounts provided for in the Credit Agreement and the Fee Agreement.

The Issuer promise to pay interest on the unpaid principal amount of all Loans and all Term Loans owed to the Lender under the Credit Agreement and the Fee Agreement on the dates and at the rate or rates provided for in the Credit Agreement and the Fee Agreement. All payments of principal and interest shall be made in any coin or currency of the United States of America which at the time of payment is legal tender for public and private debts in immediately available funds. All capitalized terms used herein and not otherwise defined herein shall have the meanings specified in the Credit Agreement.

This Note is the "Note" referred to in the Credit Agreement and is entitled to the benefits thereof and of the Related Documents referred to therein. As provided in the Credit Agreement, this Note is subject to prepayment, in whole or in part, in accordance with the terms of the Credit Agreement.

The Lender agrees, by acceptance of this Note, that it will make a notation on the schedule attached hereto of all Loans and all Term Loans evidenced hereby and all principal payments and prepayments made hereunder and of the date to which interest hereon has been paid, all as provided in the Credit Agreement; *provided, however,* that the failure to make any such notation shall not limit or otherwise affect the obligation of the Issuer hereunder with respect to payments of principal of and interest on this Note.

This Note is authorized by the Authority and the Issuer to be issued to provide funds for the purposes set forth in the Credit Agreement and for other authorized purposes, including to pay the principal amount of Loans and related Term Loans theretofore issued. This Note is issued under and pursuant to and in full compliance with the Payment Agreements, the Installment Purchase Agreement and the Credit Agreement providing for the issuance and sale and fixing the form and details of this Note.

This Note is an obligation of the Authority and the Issuer secured as more fully described in Section 2.20 of the Credit Agreement.

It is hereby certified that all conditions, acts and things essential to the validity of this Note exist, have happened and have been done and that every requirement of law affecting the issuance hereof has been duly complied with.

[Remainder of Page Intentionally Blank]

IN WITNESS WHEREOF, the Issuer has caused this Note to be executed by an authorized officer of the Issuer and this Note to be dated as of date set forth above.

LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY

By:_____
[NAME], Chair of the Board

ATTEST:

_____
[NAME], Secretary of the Board

SCHEDULE FOR [TAX-EXEMPT NOTE]
DATED [_____], 2026
BY LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY
PAYABLE TO WELLS FARGO MUNICIPAL CAPITAL STRATEGIES, LLC

DATE	AMOUNT OF LOAN OR TERM LOAN MADE	AMOUNT OF PRINCIPAL PAID	DATE TO WHICH INTEREST PAID	DUE DATE	NOTATION MADE BY

EXHIBIT B

FORM OF NOTICE OF BORROWING

[Date]

TO: _____
_____
_____
Attention: _____
Telephone: _____
E-Mail: _____

[With a copy to:

_____
_____
_____
Attention: _____
Telephone: _____
E-Mail: _____]

FROM: Las Virgenes-Triunfo Joint Powers Authority and Las Virgenes-Triunfo Public Financing Authority

Re: Credit Agreement
(the *"Credit Agreement"*) dated as of [_____], 2026, among
Las Virgenes-Triunfo Joint Powers Authority, Las Virgenes-Triunfo Public Financing Authority and the Lender

We hereby give notice, pursuant to Section 2.2(a) of the Credit Agreement, of the following proposed Borrowing:

Date of Borrowing ..... **[Date]**
Loan Principal Amount..... **[$xx,xxx,xxx]**
Amount of Loans Outstanding..... **[$xxx,xxx,xxx]**

The proceeds of such Loan are to be wire transferred to the following account:

Pay: Account Name: _____
Bank Name: _____
ABA Number: _____
Account Number: _____

[Attached hereto is an executed copy of the [Tax Certificate/Supplemental Tax Certificate] relating to such Loan which includes the related form 8038-G.]

The rates of interest on the Loan will not exceed the Maximum Interest Rate.

The undersigned hereby acknowledges on and as of the date hereof that submission of this notice shall be deemed to be a representation and warranty by the Authority on the date of such Borrowing as to the facts specified in clauses (b), (c) and (d) of Section 3.2 of the Credit Agreement and that no Default or Event of Default has occurred and is continuing.

Terms used herein have the meanings assigned to them in the Credit Agreement.

LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY

By:_____
Name: _____
Title: _____

LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY

By:_____
Name: _____
Title: _____

EXHIBIT C

FORM OF REQUEST FOR EXTENDED FUNDED PERIOD

[Date]

TO: _____
_____
_____
Attention: _____
Telephone: _____
E-Mail: _____

With a copy to:

_____
_____
_____
Attention: _____
Telephone: _____
E-Mail: _____

Ladies and Gentlemen:

The undersigned, Las Virgenes-Triunfo Joint Powers Authority (the "*Authority*") and Las Virgenes-Triunfo Public Financing Authority (the "*Issuer*"), hereby refers to the Credit Agreement dated as of [_____], 2026, as amended, modified, supplemented or restated from time to time (the "*Credit Agreement*"), among the Authority, the Issuer and Wells Fargo Municipal Capital Strategies, LLC (the "*Lender*"). All capitalized terms contained herein which are not specifically defined shall have the meanings assigned to such terms in the Credit Agreement.

The Authority and the Issuer hereby request, pursuant to Section 2.22 of the Credit Agreement, that the Term Loans be payable as provided in Section 2.22 of the Credit Agreement with interest as provided in Section 2.22 of the Credit Agreement.

In connection with such request, the Authority and the Issuer hereby representant warrant that:

(a) no Default or Event of Default shall have occurred and be continuing on the date hereof and no Default or Event of Default will have occurred and be continuing on the Facility Maturity Date,

(b) the representations and warranties of the Authority and the Issuer set forth in Article Four of the Credit Agreement are true and correct in all material respects as if made as of the date hereof and the Facility Maturity Date.

We have enclosed along with this request the following information:

1. The nature of any and all Defaults and Events of Default; and

2. Any other pertinent information previously requested by the Lender.

Very truly yours,

LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY

By:_____
Name: _____
Title: _____

LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY

By:_____
Name: _____
Title: _____

FEE AGREEMENT
DATED [_____], 2026

Reference is hereby made to the Credit Agreement dated as of [_____], 2026 (as amended, restated, supplemented or otherwise modified from time to time in accordance with the terms thereof, the *"Agreement"*), among Las Virgenes-Triunfo Joint Powers Authority (the *"Authority"*), Las Virgenes-Triunfo Public Financing Authority (the "*Issuer*"), and Wells Fargo Municipal Capital Strategies, LLC (together with its successors and assigns, the *"Lender"*), relating to the **[Las Virgenes-Triunfo Public Financing Authority Series ___ Notes]**. Capitalized terms not otherwise defined herein shall have the meanings set forth in the Agreement.

The purpose of this Fee Agreement (this *"Fee Agreement"*) is to confirm the agreement among the Lender, the Issuer and the Authority with respect to, among other things, the Commitment Fees (as defined below), the Applicable Spread and certain other fees payable to the Lender. This Fee Agreement is the Fee Agreement referenced in the Agreement, and the terms hereof are incorporated by reference into the Agreement. This Fee Agreement and the Agreement are to be construed as one agreement among the Authority, the Issuer and the Lender, and all obligations hereunder are to be construed as obligations thereunder. All references to amounts due and payable under the Agreement will be deemed to include all amounts, fees and expenses payable under this Fee Agreement.

ARTICLE I. FEES AND OTHER AGREEMENTS.

Section 1.1. Commitment Fees. The Authority and the Issuer each hereby agree to pay or cause to be paid to the Lender on April 1, 2026, for the period commencing on the Closing Date and ending on March 31, 2026, and quarterly in arrears on the first Business Day of each July, October, January and April occurring prior to the Termination Date, and on the Termination Date, a non-refundable commitment fee (the *"Commitment Fee"*) in an amount equal to the product of the rate per annum based upon the applicable Level corresponding to the then applicable Rating (as defined below) for each day during the related fee period as specified in the matrix below (the *"Commitment Fee Rate"*) multiplied by the Unutilized Commitment (as defined below) from time to time in effect for each day during each related period:

LEVEL	MOODY'S RATING	S&P RATING	FITCH RATING	COMMITMENT FEE RATE
Level 1	Aa2 or above	AA or above	AA or above	0.240%
Level 2	Aa3	AA-	AA-	0.265%
Level 3	A1	A+	A+	0.315%
Level 4	A2	A	A	0.365%
Level 5	A3	A-	A-	0.415%
Level 6	Baa1	BBB+	BBB+	0.565%
Level 7	Baa2	BBB	BBB	0.815%

LEVEL	MOODY'S RATING	S&P RATING	FITCH RATING	COMMITMENT FEE RATE
Level 8	Baa3 or below	BBB- or below	BBB- or below	1.165%

The term *"Unutilized Commitment"* as used herein means the Commitment, as of the Closing Date, as permanently reduced from time to time in accordance with the Agreement less the outstanding principal amount of any Loans under the Agreement. The term *"Rating"* as used herein shall mean the lowest of (i) the long-term unenhanced debt rating assigned by Moody's, Fitch and S&P to any Payment Agreement Parity Debt and (ii) the lowest long-term credit issuer rating of the Issuer assigned by Moody's, Fitch and S&P. In the event of a split rating (*i.e.*, the Rating of one of the Rating Agencies is different than the Rating of any of the other Rating Agencies), the Commitment Fee Rate shall be based upon the Level in which the lowest Rating appears (for the avoidance of doubt, Level 8 is the Level with the lowest Ratings, and Level 1 is the Level with the highest Ratings for purposes of the above matrix set forth in this Section 1.1). Any change in the Commitment Fee Rate resulting from a change in a Rating shall be and become effective as of and on the date of the announcement of the change in such Rating. References to ratings levels above are references to rating categories as presently determined by the Rating Agencies and in the event of adoption of any new or changed rating system, including, without limitation, any recalibration or realignment of Rating in connection with the adoption of a "global" rating scale, the rating from the Rating Agency in question referred to above shall be deemed to refer to the rating category under the new rating system that most closely approximates the applicable rating category as currently in effect. In the event that a Rating is suspended or withdrawn from any Rating Agency or upon the occurrence of and during the continuance of an Event of Default, the Commitment Fee Rate shall increase to the sum of the Commitment Fee Rate specified for Level 8 above *plus* 1.00% per annum. The Commitment Fees shall be payable as set forth above, together with interest on the Commitment Fees from the date payment is due until payment in full at the Default Rate, such interest to be payable by the Authority and the Issuer on demand therefor. The Commitment Fee shall be payable in immediately available funds and computed on the basis of a year of 360 days and the actual number of days to elapse. The Authority and the Issuer acknowledge that as of the Closing Date the Commitment Fee Rate is that specified above for Level 1 of the matrix set forth in this Section 1.1.

Notwithstanding anything herein or in the Agreement to the contrary, until a Rating is in effect pursuant to Section 5.2(aa) of the Agreement, the Commitment Fee Rate shall be the rate per annum set forth in Level 1 of the matrix set forth in this Section 1.1.

Section 1.2. Amendment, Consent or Waiver Fee. The Authority and the Issuer each hereby agree to pay or cause to be paid to the Lender on the date of each amendment, supplement, or modification to the Agreement or this Fee Agreement (or any Related Document, the amendment, supplement or modification of which requires the consent of, or waiver from, the Lender), a non-refundable fee equal to $2,500**,** or such other fee as may be agreed to between the Lender, the Issuer and the Authority, plus the reasonable fees and expenses of any legal counsel retained by the Lender in connection therewith.

Section 1.3. Applicable Spread. For purposes of the Agreement, the "*Applicable Spread*" means a rate per annum based upon the applicable Level corresponding to the then applicable Rating in the applicable column, as specified in the matrix below:

LEVEL	MOODY'S RATING	S&P RATING	FITCH RATING	APPLICABLE SPREAD
Level 1	Aa2 or above	AA or above	AA or above	0.340%
Level 2	Aa3	AA-	AA-	0.415%
Level 3	A1	A+	A+	0.565%
Level 4	A2	A	A	0.715%
Level 5	A3	A-	A-	0.865%
Level 6	Baa1	BBB+	BBB+	1.115%
Level 7	Baa2	BBB	BBB	1.465%
Level 8	Baa3	BBB-	BBB-	1.965%

In the event of a split rating (*i.e.*, the Rating of one of the Rating Agencies is different than the Rating of any of the other Rating Agencies), the Applicable Spread shall be based upon the Level in which the lowest Rating appears (for the avoidance of doubt, Level 8 is the Level with the lowest Ratings, and Level 1 is the Level with the highest Ratings for purposes of the above matrix set forth in this Section 1.3). Any change in the Applicable Spread resulting from a change in a Rating shall be and become effective as of and on the date of the announcement of the change in such Rating. References to ratings levels above are references to rating categories as presently determined by the Rating Agencies and in the event of adoption of any new or changed rating system, including, without limitation, any recalibration or realignment of Rating in connection with the adoption of a "global" rating scale, the rating from the Rating Agency in question referred to above shall be deemed to refer to the rating category under the new rating system that most closely approximates the applicable rating category as currently in effect. In the event that a Rating is suspended or withdrawn from any Rating Agency or upon the occurrence of and during the continuance of an Event of Default, the Loans shall bear interest at the Default Rate. The Authority and the Issuer acknowledge that as of the Closing Date the Applicable Spread is the rate per annum that is specified above for Level 1 of the matrix set forth in this Section 1.3.

Notwithstanding anything herein or in the Agreement to the contrary, until a Rating is in effect pursuant to Section 5.2(aa) of the Agreement, the Applicable Spread shall be the rate per annum set forth in Level 1 of the matrix set forth in this Section 1.3.

Section 1.4. Termination and Reduction Fees. (a) Notwithstanding anything set forth herein or in the Agreement to the contrary, the Authority and the Issuer agree not to terminate, or cause the termination or replacement of, the Agreement and/or the Commitment prior to the one (1) year anniversary of the Closing Date, except upon the payment by the Authority and the Issuer to the Lender of a termination fee (the "*Termination Fee*") on the date of such termination or replacement in an amount equal to the product of (1) the Commitment Fee Rate in effect on the date of such termination or replacement, (2) the Commitment (without regard to any

outstanding Loans) on the date of termination or replacement of the Agreement and/or the Commitment and (3) a fraction, the numerator of which is equal to the number of days from and including the date of such termination or replacement until and including the one (1) year anniversary of the Closing Date, and the denominator of which is 360.

(b) Notwithstanding anything set forth herein or in the Agreement to the contrary, the Authority and the Issuer agree not to permanently reduce the Commitment prior to the one (1) year anniversary of the Closing Date, without the payment by the Authority and the Issuer to the Lender of a reduction fee (the *"Reduction Fee"*) in connection with each and every permanent reduction of the Commitment on the date of such permanent reduction in an amount equal to the product of (A) the Commitment Fee Rate in effect on the date of such permanent reduction, (B) the difference between the Commitment (without regard to any outstanding Loans) prior to such permanent reduction and the Commitment (without regard to any outstanding Loans) after such permanent reduction, and (C) a fraction, the numerator of which is equal to the number of days from and including the date of such permanent reduction until and including the one (1) year anniversary of the Closing Date and the denominator of which is 360.

ARTICLE II. MISCELLANEOUS.

Section 2.1. Amendments. No amendment to this Fee Agreement shall become effective without the prior written consent of the Authority, the Issuer and the Lender.

Section 2.2. Governing Law. THIS FEE AGREEMENT SHALL BE DEEMED TO BE A CONTRACT UNDER, AND SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF CALIFORNIA AND APPLICABLE FEDERAL LAW. THIS FEE AGREEMENT IS SUBJECT TO SECTION 7.15 OF THE AGREEMENT.

Section 2.3. Counterparts. This Fee Agreement may be executed in multiple counterparts, each of which shall constitute an original but both or all of which, when taken together, shall constitute but one instrument. Delivery of an executed counterpart of a signature page of this Fee Agreement by facsimile transmission or by e-mail with a pdf copy or other replicating image attached, will be effective as delivery of a manually executed counterpart of this Fee Agreement, and any printed or copied version of any signature page so delivered will have the same force and effect as an originally signed version of such signature page.

Section 2.4. Severability. Any provision of this Fee Agreement which is prohibited, unenforceable or not authorized in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition, unenforceability or non-authorization without invalidating the remaining provisions hereof or affecting the validity, enforceability or legality of such provision in any other jurisdiction.

Section 2.5. Representation by Legal Counsel; Joint Preparation. The parties hereto have participated jointly in the negotiation and drafting of this Fee Agreement, and each of the parties was represented by its respective legal counsel during the negotiation and execution of this Fee Agreement. In the event an ambiguity or question of intent or interpretation arises, this Fee Agreement shall be construed as if drafted jointly by the parties, and no presumption or

burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Fee Agreement.

Section 2.6. No Disclosure. Unless required by law, the Authority and the Issuer shall not deliver or permit, authorize or consent to the delivery of this Fee Agreement to any Person (other than the Authority's and the Issuer's respective attorneys, accountants or auditors) or for posting on the Electronic Municipal Market Access website as provided by the Municipal Securities Rulemaking Board unless the Lender provides its prior written consent.

Section 2.7. Payment Due on Non-Business Day to Be Made on Next Business Day. If any sum becomes payable pursuant to this Fee Agreement on a day which is not a Business Day, the date for payment thereof shall be extended, without penalty, to the next succeeding Business Day, and such extended time shall be included in the computation of interest and fees.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Fee Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of the date first set forth above.

LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY

By:_____
Name: _____
Title: _____

ATTEST:

By: _____
Name: _____
Title: _____

LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY

By:_____
Name: _____
Title: _____

ATTEST:

By: _____
Name: _____
Title: _____

WELLS FARGO MUNICIPAL CAPITAL STRATEGIES, LLC

By: _____
Name: _____
Title: _____

INSTALLMENT PURCHASE AGREEMENT

by and between

LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY
formed October 12, 1964 relating to joint facilities of
Las Virgenes Municipal Water District and Triunfo Water & Sanitation District

and

LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY

Dated as of _____ 1, 2026

Relating to

$_____
LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY
[TAX-EXEMPT NOTE
(WELLS FARGO CREDIT AGREEMENT)]

TABLE OF CONTENTS

Page

ARTICLE I
DEFINITIONS

Section 1.01. Definitions 2

ARTICLE II
REPRESENTATIONS AND WARRANTIES

Section 2.01. Representations by the Operating JPA 6
Section 2.02. Representations and Warranties by the Financing JPA 7

ARTICLE III
ACQUISITION AND CONSTRUCTION OF PROJECT

Section 3.01. Acquisition and Construction of the Project 7
Section 3.02. Changes to the Project 8
Section 3.03. Acquisition Fund 8
Section 3.04. Purchase and Sale of the Project 8
Section 3.05. Title 8

ARTICLE IV
INSTALLMENT PAYMENTS

Section 4.01. Term 9
Section 4.02. Purchase Price 9
Section 4.03. 2026 Installment Payments 9

ARTICLE V
SECURITY

Section 5.01. Pledge of Revenues 10
Section 5.02. Additional Contracts 10

ARTICLE VI
COVENANTS OF THE OPERATING JPA

Section 6.01. Compliance with Installment Purchase Agreement and Ancillary Agreements 11
Section 6.02. Against Encumbrances 11
Section 6.03. Against Sale or Other Disposition of Property 11
Section 6.04. Covenant to Maintain Tax-Exempt Status 12
Section 6.05. [Reserved] 12
Section 6.06. Prompt Acquisition and Construction 13
Section 6.07. Maintenance and Operation of the Project 13
Section 6.08. Payment of Claims 13
Section 6.09. Compliance with Contracts 13
Section 6.10. Insurance 13
Section 6.11. Accounting Records; Financial Statements and Other Reports 14
Section 6.12. Protection of Security and Rights of the Financing JPA 14
Section 6.13. Payment of Taxes and Compliance with Governmental Regulations 14
Section 6.14. Covenant to Budget 14

TABLE OF CONTENTS
(*continued*)

Page

Section 6.15. Collection of Rates and Charges 15
Section 6.16. Eminent Domain Proceeds 15
Section 6.17. Further Assurances 15
Section 6.18. Enforcement of Contracts 15

ARTICLE VII
PREPAYMENT OF 2026 INSTALLMENT PAYMENTS

Section 7.01. Prepayment 16
Section 7.02. Method of Prepayment 16

ARTICLE VIII
EVENTS OF DEFAULT AND REMEDIES OF THE FINANCING JPA

Section 8.01. Events of Default 16
Section 8.02. Application of Funds Upon Acceleration 17
Section 8.03. Remedies of the Financing JPA 17
Section 8.04. [Reserved] 18
Section 8.05. Non-Waiver 18
Section 8.06. Remedies Not Exclusive 18

ARTICLE IX
DISCHARGE OF OBLIGATIONS

Section 9.01. Discharge of Obligations 18

ARTICLE X
MISCELLANEOUS

Section 10.01. Liability Limited 19
Section 10.02. Benefits of Installment Purchase Agreement Limited to Parties 20
Section 10.03. Successor Is Deemed Included in all References to Predecessor 20
Section 10.04. Waiver of Personal Liability 20
Section 10.05. Article and Section Headings, Gender and References 20
Section 10.06. Partial Invalidity 20
Section 10.07. [Reserved] 20
Section 10.08. Net Contract 21
Section 10.09. California Law 21
Section 10.10. Notices 21
Section 10.11. Effective Date 21
Section 10.12. Execution in Counterparts 21
Section 10.13. Indemnification 21
Section 10.14. Amendments Permitted 22

Signatures S-1

Exhibit A Description of the Project A-1
Exhibit B Purchase Price B-1
Exhibit C Form of Substitution Statement C-1

INSTALLMENT PURCHASE AGREEMENT

This INSTALLMENT PURCHASE AGREEMENT, dated as of _____ 1, 2026, is entered into by and between LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY, a joint exercise of powers agency relating to joint facilities of Las Virgenes Municipal Water District and Triunfo Water & Sanitation District (the "**Operating JPA**"), and LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY, a joint exercise of powers agency that is duly organized and existing under and by virtue of the laws of the State of California (the "**Financing JPA**").

RECITALS

A. LVMWD and TWSD (collectively, the "**Project Participants**") are members of the Operating JPA and jointly operate certain facilities through the Operating JPA.

B. The Operating JPA is authorized by Sections 6508, 6546(g) and (v) and 6547.1 of the Government Code of the State of California and Sections 8, 10.c and 21.a. of the Operating JPA Joint Powers Agreement to acquire and construct property.

C. The Operating JPA proposes to acquire, construct and operate the Pure Water Project (the "**Project**") in Agoura Hills, California. The Project will consist of an advanced water purification facility to treat effluent from the Operating JPA's Tapia Water Reclamation Facility for potable reuse, as described in Exhibit A.

D. The Project shall be deemed to be part of the Joint System (as such term is defined in the Operating JPA Joint Powers Agreement) in accordance with Sections 1.d and 25 of the Operating JPA Joint Powers Agreement.

E. The Operating JPA proposes, in exchange for the agreement by the Project Participants to pay their respective Allocated Shares of Debt Service (as such terms are defined in the Payment Agreement) and Operation and Maintenance Costs, to sell the water to be produced by the Project to the Project Participants.

F. The Project Participants are members of the Financing JPA and desire to finance the acquisition and construction of the Project through the Financing JPA.

G. The Financing JPA is authorized by Chapter 5 of Division 7 of Title 1 of the Government Code of the State of California, including but not limited to Section 6540 *et seq.*, to finance and refinance the acquisition and construction of property for the Project Participants.

H. The Operating JPA has approved the execution of a Credit Agreement among the Operating JPA, the Financing JPA and Wells Fargo Municipal Capital Strategies, LLC (together with its successors and assigns, the "**Lender**"), dated as of _____ , 2026 (as the same may be amended, supplemented, modified or restated in accordance with the terms thereof, the "**Credit Facility**"), pursuant to which the Lender has agreed to provide to the Operating JPA and the Financing JPA, up to $_____ in funds to pay the costs of the Project.

I. The Financing JPA has determined that it is necessary and desirable to enter into this Agreement pursuant to which the Financing JPA is to purchase the Project in consideration for

Installment Payments equal in time and amount to payments required to be made by the Operating JPA pursuant to the Credit Facility as and when due thereunder.

J. The 2026 Installment Payments will be payable from and secured by Revenues on the terms and conditions that are set forth herein and in the Payment Agreement.

K. The Operating JPA and the Financing JPA have duly authorized the execution, delivery and performance of this Installment Purchase Agreement.

L. All acts, conditions and things that are required by law to exist, to have happened and to have been performed precedent to and in connection with the execution, delivery and performance of this Installment Purchase Agreement do exist, have happened and have been performed in regular and due time, form and manner as required by law, and the parties hereto are now duly authorized to execute and enter into and perform this Installment Purchase Agreement.

NOW, THEREFORE, IN CONSIDERATION OF THESE PREMISES AND OF THE MUTUAL AGREEMENTS AND COVENANTS CONTAINED HEREIN AND FOR OTHER VALUABLE CONSIDERATION, THE PARTIES HERETO DO HEREBY AGREE AS FOLLOWS:

ARTICLE I

DEFINITIONS

Section 1.01. Definitions. Unless the context otherwise requires, the terms that are defined in this section shall for all purposes hereof and of any amendment hereof or supplement hereto and of any report or other document that is mentioned herein or therein have the meanings that are defined herein, the following definitions to be equally applicable to both the singular and plural forms of any of the terms that are defined herein. All capitalized terms that are used herein and not defined herein shall have the meanings that are ascribed thereto in the Credit Facility.

Acquisition Fund

The term "Acquisition Fund" means the fund by that name created pursuant to Section 3.03.

Administering Agent

The term "Administering Agent" has the meaning set forth in Section 2.a of the Operating JPA Joint Powers Agreement.

Contracts

The term "Contracts" means this Agreement and all other contracts of the Operating JPA that are previously or hereafter authorized and executed by the Operating JPA, the payments under which are payable from Revenues on a parity with the 2026 Installment Payments and which are secured by a pledge and lien on Revenues as described in Section 5.01 hereof.

Credit Facility

The term "Credit Facility" means that certain Credit Agreement among the Operating JPA, the Financing JPA and the Lender , dated as of _____, 2026, as amended, supplemented, restated or otherwise modified from time to time.

Event of Default

The term "Event of Default" means an event that is described in Section 8.01.

Financing JPA

The term "Financing JPA" means Las Virgenes-Triunfo Public Financing Authority, a joint exercise of powers agency that is duly organized pursuant to the Financing JPA Joint Powers Agreement and existing under and by virtue of the laws of the State of California.

Financing JPA Joint Powers Agreement

The term "Financing JPA Joint Powers Agreement" means the Joint Exercise of Powers Agreement, dated as of September 1, 2023, by and between LVMWD and TWSD, pursuant to which the Financing JPA was established.

Fiscal Year

The term "Fiscal Year" means the period from July 1 of each year through June 30 of the following year, or any other twelve-month period that is selected and designated as the official Fiscal Year of the Operating JPA.

Independent Certified Public Accountant

The term "Independent Certified Public Accountant" means any firm of certified public accountants that is appointed by the Operating JPA, and each of whom is independent pursuant to the Statement on Auditing Standards No. 1 of the American Institute of Certified Public Accountants.

Independent Financial Consultant

The term "Independent Financial Consultant" means a financial consultant or firm of such consultants that is appointed by the Operating JPA, and who, or each of whom: (1) is in fact independent and not under domination of the Operating JPA; (2) does not have any substantial interest, direct or indirect, with the Operating JPA; and (3) is not connected with the Operating JPA as an officer or employee of the Operating JPA, but who may be regularly retained to make reports to the Operating JPA.

Installment Payment Date

The term "Installment Payment Date" means any date on which Installment Payments are scheduled to be paid by the Operating JPA under and pursuant to any Contract.

Installment Payments

The term "Installment Payments" means the Installment Payments of interest and principal scheduled to be paid under and pursuant to the Contracts.

Installment Purchase Agreement

The term "Installment Purchase Agreement" means this Installment Purchase Agreement, dated as of _____ 1, 2026, by and between the Operating JPA and the Financing JPA, as originally executed and as it may from time to time be amended or supplemented in accordance herewith.

Joint System

The term "Joint System" has the meaning set forth in the Section 2.d of the Operating JPA Joint Powers Agreement.

Law

The term "Law" means the Joint Exercise of Powers Act of the State of California (being Section 6500 *et seq*. of the Government Code of the State of California, as amended) and all laws amendatory thereof or supplemental thereto.

Lender

The term "Lender" means Wells Fargo Municipal Capital Strategies, LLC, and its successors and assigns.

LVMWD

The term "LVMWD" means Las Virgenes Municipal Water District, a municipal water district that is that is duly organized and existing under the Municipal Water District Act (Section 71000 *et seq*. of the Water Code of the State of California).

Manager

The term "Manager" means the General Manager of LVMWD, performing the duties of the Administering Agent set forth in Section 6 of the Operating JPA Joint Powers Agreement on behalf of the Operating JPA.

Net Proceeds

The term "Net Proceeds" means, when used with respect to any casualty insurance or condemnation award, the proceeds from such insurance or condemnation award remaining after payment of all expenses (including attorneys' fees) incurred in the collection of such proceeds.

Operation and Maintenance Costs

The term "Operation and Maintenance Costs" means, collectively: (i) "variable operation and maintenance costs" and "fixed operation and maintenance costs" of the Joint System and the Project, as such terms are defined in Section 13 of the Operating JPA Joint Powers Agreement; and (ii) other

costs spent or incurred for maintenance and operation of the Project calculated in accordance with generally accepted accounting principles, including (among other things) the reasonable expenses of management and repair and other expenses necessary to maintain and preserve the Project in good repair and working order, and including administrative costs of the Operating JPA, including but not limited to salaries and wages of employees of the Administering Agent, payments to the Public Employees Retirement System (if any), overhead, insurance, taxes (if any), fees of auditors, accountants, attorneys, consultants or engineers and insurance premiums; but excluding in all cases depreciation, replacement and obsolescence charges or reserves therefor and amortization of intangibles or other bookkeeping entries of a similar nature.

Operating JPA

The term "Operating JPA" means Las Virgenes-Triunfo Joint Powers Authority, a joint exercise of powers agency that is duly organized pursuant to the Operating JPA Joint Powers Agreement and existing under and by virtue of the laws of the State of California.

Operating JPA Joint Powers Agreement

The term "Operating JPA Joint Powers Agreement" means the Joint Exercise of Powers Agreement, dated January 26, 2009, as amended from time to time, by and between LVMWD and TWSD, relating to joint facilities of LVMWD and TWSD, pursuant to which the Operating JPA was established.

Payment Agreement

The term "Payment Agreement" means, collectively, the Payment Agreements, each dated as of ____ 1, 2026, by and among the Operating JPA, the Financing JPA and each Project Participant, as amended, supplemented, restated or otherwise modified from time to time.

Project

The term "Project" means the additions, betterments, extensions and improvements to the Operating JPA's Joint System facilities, including real property and buildings, if any, which are described as such in Exhibit A, to the extent: (i) approved pursuant to the California Environmental Quality Act; and (ii) paid for with the drawings under the Credit Facility, and as modified in conformance with Section 3.02 hereof.

Project Participant

The term "Project Participant" means LVMWD or TWSD.

Purchase Price

The term "Purchase Price" means the principal amount to be paid from time to time by the Operating JPA to the Financing JPA hereunder as the purchase price of the 2024 Project, being equal to the aggregate principal amount of loans, term loans and other obligations outstanding pursuant to the Credit Facility, plus interest thereon, in each case as provided for in the Credit Facility.

Revenues

The term "Revenues" means amounts paid by the Project Participants directly to the Financing JPA under the Payment Agreement.

Tax Certificate

The term "Tax Certificate" means the Tax Certificate dated the date of Credit Facility, concerning certain matters pertaining to the use and investment of proceeds of the draws on the Credit Facility executed by and delivered to the Financing JPA, including any and all exhibits attached thereto.

2026 Installment Payment Date

The term "2026 Installment Payment Date" means the dates on which Installment Payments are required to be made, as set forth in Section 4.03.

2026 Installment Payments

The term "2026 Installment Payments" means the Installment Payments scheduled to be paid by the Operating JPA under and pursuant to this Installment Purchase Agreement.

TWSD

The term "TWSD" means Triunfo Water & Sanitation District, a county sanitation district that is duly organized and existing under the County Sanitation District Act (Health & Safety Code Section 4700 *et seq*. of the State of California).

ARTICLE II

REPRESENTATIONS AND WARRANTIES

Section 2.01. Representations by the Operating JPA. The Operating JPA makes the following representations:

(a) The Operating JPA is a joint exercise of powers agency that is duly organized and existing under and pursuant to the laws of the State of California and the Operating JPA Joint Powers Agreement.

(b) The Operating JPA has full legal right, power and authority to enter into this Installment Purchase Agreement, carry out its obligations hereunder and carry out and consummate all other transactions that are contemplated by this Installment Purchase Agreement, and the Operating JPA has complied with the provisions of the Law in all matters relating to such transactions.

(c) By proper action, the Operating JPA has duly authorized the execution, delivery and due performance of this Installment Purchase Agreement.

(d) The Operating JPA will not take or, to the extent within its power, permit any action to be taken which results in the interest that is paid for the installment purchase of the Project under

the terms of this Installment Purchase Agreement being included in the gross income of the Financing JPA or its assigns for purposes of federal or State of California personal income taxation.

(e) The Operating JPA has determined that it is necessary and proper for Operating JPA uses and purposes within the terms of the Law that the Operating JPA finance and acquire the Project in the manner that is provided for in this Installment Purchase Agreement in order to provide essential services and facilities to persons residing in the Operating JPA service territory.

(f) This Installment Purchase Agreement constitutes an "Indenture" as defined in and for purposes of the Payment Agreement.

Section 2.02. Representations and Warranties by the Financing JPA. The Financing JPA makes the following representations and warranties:

(a) The Financing JPA is a joint exercise of powers agency that is duly organized under the Financing JPA Joint Powers Agreement and in good standing under the laws of the State of California, has full legal right, power and authority to enter into this Installment Purchase Agreement and to carry out and consummate all transactions that are contemplated by this Installment Purchase Agreement and by proper action has duly authorized the execution and delivery and due performance of this Installment Purchase Agreement.

(b) The execution and delivery of this Installment Purchase Agreement and the consummation of the transactions herein contemplated will not violate any provision of law, any order of any court or other agency of government, or any indenture, material agreement or other instrument to which the Financing JPA is now a party or by which it or any of its properties or assets is bound, or be in conflict with, result in a breach of or constitute a default (with due notice or the passage of time or both) under any such indenture, agreement or other instrument, or result in the creation or imposition of any prohibited lien, charge or encumbrance of any nature whatsoever upon any of the properties or assets of the Financing JPA.

(c) The Financing JPA will not take or permit any action to be taken which results in interest that is paid for the installment purchase of the Project under the terms of this Installment Purchase Agreement being included in the gross income of the Financing JPA or its assigns for purposes of federal or State of California personal income taxation.

(d) This Installment Purchase Agreement constitutes an "Indenture" as defined in and for purposes of the Payment Agreement.

ARTICLE III

ACQUISITION AND CONSTRUCTION OF PROJECT

Section 3.01. Acquisition and Construction of the Project. The Financing JPA hereby agrees to cause the Project and any additions or modifications thereto to be constructed, acquired and installed by the Operating JPA as its agent. The Operating JPA (or its Administering Agent) shall enter into contracts and provide for, as agent for the Financing JPA, the complete design, construction, acquisition and installation of the Project in accordance with all applicable laws. The Operating JPA hereby agrees that it will cause the construction, acquisition and installation of the Project to be diligently performed. It is hereby expressly understood and agreed that the Financing

JPA shall be under no liability of any kind or character whatsoever for the payment of any cost of the Project and that all such costs and expenses shall be paid by the Operating JPA.

Section 3.02. Changes to the Project. The Operating JPA may substitute other improvements for those listed as components of the Project in Exhibit A, but only if the Operating JPA first files with the Financing JPA a statement of the Operating JPA in the form attached as Exhibit B: (a) identifying the improvements to be substituted and the improvements to Operating JPA facilities they replace in the Project; (b) stating that the estimated costs of construction, acquisition and installation of the substituted improvements are not less than such costs for the improvements previously planned; and (c) stating that such substituted improvements will not reduce the Revenues payable by the Project Participants or otherwise adversely affect the payment of the Installment Payments.

Section 3.03. Acquisition Fund. There is hereby established with the Operating JPA a separate fund designated as the "Acquisition Fund." The moneys in the Acquisition Fund shall be held by the Operating JPA in trust and applied to the payment of the costs of design, planning acquisition and construction of the Project and of expenses incidental thereto. Before any payment is made from the Acquisition Fund by the Operating JPA, the Manager, acting as agent of the Financing JPA, shall cause to be filed with the Chair of the Operating JPA a certificate of the Operating JPA in the form set forth in Exhibit C.

Upon receipt of each such certificate, the Deputy Treasurer of the Operating JPA will pay the amount that is set forth in such certificate as directed by the terms thereof or disburse funds to the Operating JPA for such payment as directed by the Operating JPA in such certificate. The Deputy Treasurer of the Operating JPA need not make any such payment if it has received notice of any lien, right to lien, attachment upon or claim affecting the right to receive payment of any of the moneys to be so paid, which has not been released or will not be released simultaneously with such payment.

When the Project shall have been constructed and acquired in accordance with this Installment Purchase Agreement, a statement of the Operating JPA stating the fact and date of such acquisition, construction and acceptance and stating that all of such costs of acquisition and incidental expenses have been determined and paid (or that all of such costs and expenses have been paid less specified claims which are subject to dispute and for which a retention in the Acquisition Fund is to be maintained in the full amount of such claims until such dispute is resolved), shall be delivered to the Deputy Treasurer of the Operating JPA and the Lender by the Manager. Upon the receipt of such statement, the Deputy Treasurer of the Operating JPA shall apply any remaining balance in the Acquisition Fund which is not needed for Acquisition Fund purposes (but less the amount of any such retention, which amount shall be certified to the Deputy Treasurer of the Operating JPA by the Manager) to pay 2026 Installment Payments pro rata with respect to each Project Participant's share thereof.

Section 3.04. Purchase and Sale of the Project. In consideration for the 2026 Installment Payments, the Financing JPA agrees to sell, and hereby sells, to the Operating JPA, and the Operating JPA agrees to purchase, and hereby purchases, from the Financing JPA, the Project at the purchase price that is specified in Section 4.02 hereof and otherwise in the manner and in accordance with the provisions of the Installment Purchase Agreement.

Section 3.05. Title. All right, title and interest in each component of the Project located in Los Angeles County shall vest in LVMWD on behalf of the Operating JPA immediately upon

acquisition or construction thereof. All right, title and interest in each component of the Project located in Ventura County shall vest in TWSD on behalf of the Operating JPA immediately upon acquisition or construction thereof. Such vesting shall occur without further action by the Financing JPA, the Operating JPA, LVMWD, or TWSD, and the Financing JPA shall, if requested by the Operating JPA or if necessary to assure such automatic vesting, deliver any and all documents which are required to assure such vesting.

ARTICLE IV

INSTALLMENT PAYMENTS

Section 4.01. Term. The term of this Agreement shall commence on the Closing Date and shall end on the date on which the Operating JPA shall have paid all 2026 Installment Payments and all other amounts due and payable hereunder and under the Credit Facility.

Section 4.02. Purchase Price.

(a) The Purchase Price to be paid by the Operating JPA hereunder to the Financing JPA is the sum of the principal amount of the Operating JPA's obligations hereunder plus the interest to accrue on the unpaid balance of such principal amount from the effective date hereof over the term hereof, subject to prepayment as provided in Article VII.

(b) The principal amount of the Purchase Price to be made by the Operating JPA hereunder is equal to the aggregate amount of Loans and Term Loans (each as defined in the Credit Facility), to the Financing JPA and/or the Operating JPA and all other Obligations (as defined in the Credit Facility), in each case, outstanding from time to time pursuant to the Credit Facility.

(c) The interest to accrue on the unpaid principal amount of the Purchase Price shall be equal to the interest payable with respect to the aggregate amount of Loans and Term Loans to the Financing JPA and/or the Operating JPA and all other Obligations, in each case, outstanding from time to time pursuant to the Credit Facility as provided in the Credit Facility, and shall be paid by the Operating JPA as and constitute interest paid on the principal amount of the Operating JPA's obligations hereunder.

Section 4.03. 2026 Installment Payments. The Operating JPA shall, subject to its rights of prepayment provided in Article VII, cause the Project Participants to pay their respective shares of the Purchase Price to the Financing JPA in accordance with the Payment Agreement. The 2026 Installment Payments shall be payable on or before each date on which the Financing JPA and/or the Operating JPA is obligated to pay the principal of and interest on the Loans, Term Loans all other Obligations in accordance with the Credit Facility, and shall be equal to the amounts required to be paid by the Financing JPA and/or the Operating JPA pursuant to the Credit Facility at such times and in such amounts as specified in the Credit Facility.

The Operating JPA shall cause each 2026 Installment Payment to be paid to the Financing JPA by the Project Participants in lawful money of the United States of America. In the event that the Project Participants fail to make any of the payments which are required to be made by it under this section, such payment shall continue as an obligation of the Operating JPA until such amount shall have been fully paid, and the Operating JPA shall cause the Project Participants to agree to pay

the same with interest accruing thereon at the rate or rates of interest then applicable to the remaining unpaid principal balance of the 2026 Installment Payments if paid in accordance with their terms.

ARTICLE V

SECURITY

Section 5.01. Pledge of Revenues. (i) The Revenues and any other amounts which are held in any fund or account that is established pursuant to the Installment Purchase Agreement are irrevocably pledged to the payment of the 2026 Installment Payments. The Revenues shall not be used for any other purpose while any of the 2026 Installment Payments remain unpaid; provided that out of the Revenues there may be apportioned such sums for such purposes as are expressly permitted herein. This pledge shall constitute a first lien on Revenues and the other funds and accounts that are created hereunder for the payment of the 2026 Installment Payments and all other Contracts in accordance with the terms hereof and of the Credit Facility. The Operating JPA shall cause the Project Participants to pay their respective shares of the 2026 Installment Payments under the Payment Agreement from Net Revenues (as such term is defined in the Payment Agreement).

(ii) The pledge in this Section is made pursuant to Section 10 of each Payment Agreement and, pursuant thereto, the Financing JPA hereby pledges to the Lender, as a Holder of Project Bonds, all of the payments received under each Payment Agreement from each Purchaser, on a parity with pledge of such payments to the payment of any other Project Bonds issued or incurred on a parity with the 2026 Installment Payments. The Financing JPA assigns to the Lender, as a Holder of Project Bonds, (a) the portions of the payments received under each Payment Agreement from each Purchaser representing each such Purchaser's Allocated Share (as such term is defined in the respective Payment Agreement) of the 2026 Installment Payments in the amounts set forth in Exhibit A of the respective Payment Agreement and (ii) the Financing JPA's other rights and interests under each Payment Agreement. The Financing JPA hereby determines that such pledge and assignment shall be made effective for such time as the Credit Facility is in effect and hereby provides that the Lender, as a Holder of Project Bonds, has the power to enforce each Payment Agreement in the event of a default by the Financing JPA hereunder.

Section 5.02. Additional Contracts. In the event that the Financing JPA issues additional Project Bonds (as such term is defined in the Payment Agreement), the Operating JPA shall simultaneously execute a related Contract that causes the Project Participants to amend the Payment Agreement to increase the amounts payable thereunder by the Project Participants from Purchaser Revenues (as such term is defined in the Payment Agreement) to a sum that is sufficient to pay 100% of additional debt service in connection with such proposed additional Contract.

Notwithstanding the foregoing, Contracts may be incurred to refund outstanding Contracts if, after giving effect to the application of the proceeds thereof, total debt service payable under the Payment Agreement will not be increased in any Fiscal Year in which Contracts (outstanding on the date of issuance or incurrence of such refunding Contracts, but excluding such refunding Contracts) not being refunded are outstanding.

ARTICLE VI

COVENANTS OF THE OPERATING JPA

Section 6.01. Compliance with Installment Purchase Agreement and Ancillary Agreements. The Operating JPA will punctually cause the 2026 Installment Payments to be paid in strict conformity with the terms hereof and of the Credit Facility and the Payment Agreement, and will faithfully observe and perform all of the agreements, conditions, covenants and terms contained herein which are required to be observed and performed by it, and will not terminate this Installment Purchase Agreement for any cause including, without limiting the generality of the foregoing, any acts or circumstances that may constitute failure of consideration, destruction of or damage to the Joint System or the Project, commercial frustration of purpose, any change in the tax or other laws of the United States of America or of the State of California or any political subdivision of either or any failure of the Financing JPA to observe or perform any agreement, condition, covenant or term which is contained herein and required to be observed and performed by it, whether express or implied, or any duty, liability or obligation arising out of or connected herewith, the insolvency, or deemed insolvency, bankruptcy or liquidation of the Financing JPA or any force majeure, including acts of God, tempest, storm, earthquake, war, rebellion, riot, civil disorder, acts of public enemies, blockade or embargo, strikes, industrial disputes, lock outs, lack of transportation facilities, fire, explosion or acts or regulations of governmental authorities.

The Operating JPA shall enforce all terms of the Payment Agreement, including pursuing remedies in the event that a Project Participant fails to undertake its payment obligations thereunder. The Operating JPA shall also maintain and operate the Joint System and the Project in accordance with Section 6.07 hereof and with the Operating JPA Joint Powers Agreement and collect all amounts from the Project Participants under the Operating JPA Joint Powers Agreement that are necessary to maintain and operate the Joint System and the Project. The foregoing obligation includes the obligation set forth in Section 6.14.

The Operating JPA will faithfully observe and perform all of the agreements, conditions, covenants and terms which are required to be observed and performed by it pursuant to all outstanding Contracts as such may from time to time be executed or issued, as the case may be.

Section 6.02. Against Encumbrances. The Operating JPA will not make any pledge of or place any lien on Revenues except as provided herein. In addition, the Operating JPA may at any time, or from time to time, issue evidences of indebtedness or incur other obligations for any lawful purpose which are payable from and secured by a pledge of and lien on Revenues, provided that such pledge and lien shall be subordinate in all respects to the pledge of and lien thereon provided herein.

Section 6.03. Against Sale or Other Disposition of Property. The Operating JPA will not enter into any agreement or lease which impairs the operation of the Joint System, the Project or any part thereof necessary to secure adequate Revenues for the payment of the 2026 Installment Payments, or which would otherwise impair the rights of the Financing JPA hereunder or the operation of the Project. Any real or personal property which has become nonoperative or which is not needed for the efficient and proper operation of the Project, or any material or equipment which has become worn out, may be sold if such sale will not impair the ability of the Operating JPA to pay the 2026 Installment Payments and if the proceeds of such sale are applied to pay 2026 Installment Payments pro rata with respect to each Project Participant's share thereof.

Nothing herein shall restrict the ability of the Operating JPA to sell any portion of the Project if such portion is immediately repurchased by the Operating JPA and if such arrangement cannot by its terms result in the purchaser of such portion of the Project exercising any remedy which would deprive the Operating JPA of or otherwise interfere with its right to own and operate such portion of the Project.

Section 6.04. Covenant to Maintain Tax-Exempt Status. Notwithstanding any other provision of this Installment Purchase Agreement, absent an opinion of Note Counsel that the exclusion from gross income of the interest component of the 2026 Installment Payments will not be adversely affected for federal income tax purposes, the Operating JPA covenants to comply with all applicable requirements of the Internal Revenue Code which are necessary to preserve such exclusion from gross income with respect to the 2026 Installment Payments and specifically covenants, without limiting the generality of the foregoing, as follows:

(a) Private Activity. The Operating JPA will take no action or refrain from taking any action, and the Operating JPA will make no use of the proceeds of the draws on the Credit Facility or of any other moneys or property, which would cause the 2026 Installment Payments to be "private activity bonds" within the meaning of Section 141 of the Code;

(b) Arbitrage. The Operating JPA will make no use of the proceeds of the draws on the Credit Facility or of any other amounts or property, regardless of the source, and the Operating JPA will not take any action or refrain from taking any action, which will cause the 2026 Installment Payments to be "arbitrage bonds" within the meaning of Section 148 of the Code;

(c) Federal Guarantee. The Operating JPA will make no use of the proceeds of the draws on the Credit Facility, and the Operating JPA will not take or omit to take any action, that would cause the 2026 Installment Payments to be "federally guaranteed" within the meaning of Section 149(b) of the Code;

(d) Information Reporting. The Operating JPA will take or cause to be taken all necessary action to comply with the informational reporting requirement of Section 149(e) of the Code which is necessary to preserve the exclusion of interest on the interest component of the 2026 Installment Payments pursuant to Section 103(a) of the Code;

(e) Hedge Bonds. The Operating JPA will make no use of the proceeds of the draws on the Credit Facility or any other amounts or property, regardless of the source, and the Operating JPA will not take any action or refrain from taking any action, that would cause the 2026 Installment Payments to be considered "hedge bonds" within the meaning of Section 149(g) of the Code unless the Operating JPA takes all necessary action to assure compliance with the requirements of Section 149(g) of the Code to maintain the exclusion from gross income of the interest component of the 2026 Installment Payments for federal income tax purposes; and

(f) Miscellaneous. The Operating JPA will not take any action or refrain from taking any action which is inconsistent with its expectations stated in the Tax Certificate executed by the Operating JPA in connection with the execution and delivery of the Credit Facility and will comply with the covenants and requirements that are stated therein and incorporated by reference herein.

Section 6.05. [Reserved].

Section 6.06. Prompt Acquisition and Construction. The Operating JPA will take all necessary and appropriate steps to acquire and construct the Project, as agent of the Financing JPA, with all practicable dispatch and in an expeditious manner and in conformity with law so as to complete the same as soon as possible.

Section 6.07. Maintenance and Operation of the Project. The Operating JPA will maintain and preserve the Joint System (including the Project) in good repair and working order at all times and will operate the Joint System (including the Project) in an efficient and economical manner and will pay, or cause the Project Participants to pay, all Operation and Maintenance Costs thereof as they become due and payable in accordance with the Operating JPA Joint Powers Agreement.

Section 6.08. Payment of Claims. The Operating JPA will pay and discharge any and all lawful claims for labor, materials or supplies which, if unpaid, might become a lien on the Revenues or the funds or accounts created hereunder or on any funds in the hands of the Operating JPA pledged to pay the 2026 Installment Payments, or which might impair the security of the 2026 Installment Payments.

Section 6.09. Compliance with Contracts. The Operating JPA will neither take nor omit to take any action under any contract if the effect of such act or failure to act would in any manner impair or adversely affect the ability of the Operating JPA to pay Installment Payments, or to cause the Project Participants to pay amounts due under the Payment Agreement; and the Operating JPA will comply with, keep, observe and perform all agreements, conditions, covenants and terms, express or implied, required to be performed by it contained in all contracts affecting or involving the Project or the Joint System, to the extent that the Operating JPA is a party thereto.

Section 6.10. Insurance.

(a) The Operating JPA will procure and maintain or cause to be procured and maintained insurance on the Project with responsible insurers in such amounts and against such risks (including damage to or destruction of the Joint System or the Project) as are usually covered in connection with water and wastewater systems similar to the Joint System or the Project, as applicable, so long as such insurance is available from reputable insurance companies.

In the event of any damage to or destruction of the Project or the Joint System caused by the perils covered by such insurance, the Net Proceeds thereof shall be applied to the reconstruction, repair or replacement of the damaged or destroyed portion of the Project or the Joint System, respectively. The Operating JPA shall begin such reconstruction, repair or replacement promptly after such damage or destruction shall occur, and shall continue and properly complete such reconstruction, repair or replacement as expeditiously as possible, and shall pay out of such Net Proceeds all costs and expenses in connection with such reconstruction, repair or replacement so that the same shall be completed and the Project and the Joint System shall be free and clear of all claims and liens.

If such Net Proceeds exceed the costs of such reconstruction, repair or replacement portion of the Project, respectively, and/or the cost of the construction of additions, betterments, extensions or improvements to the Project, respectively, then the excess Net Proceeds shall be applied to prepay, ratably without any discrimination or preference, the 2026 Installment Payments and any other Installment Payments in accordance with the provisions of other Contracts.

(b) The Operating JPA will procure and maintain such other insurance as it shall deem advisable or necessary to protect its interests and the interests of the Financing JPA, which insurance shall afford protection in such amounts and against such risks as are usually covered in connection with water and wastewater systems similar to the Project and the Joint System, as applicable.

(c) Any insurance that is required to be maintained by paragraph (a) above and, if the Operating JPA determines to procure and maintain insurance pursuant to paragraph (b) above, such insurance, may be maintained under a self-insurance program so long as such self-insurance is maintained in the amounts and manner usually maintained in connection with water and wastewater systems similar to the Project and the Joint System, as applicable, and is, in the opinion of an accredited actuary, actuarially sound.

All policies of insurance which are required to be maintained herein shall provide that the Financing JPA shall be given thirty (30) days written notice of any intended cancellation thereof or reduction of coverage provided thereby.

Section 6.11. Accounting Records; Financial Statements and Other Reports. The Operating JPA will keep appropriate accounting records in which complete and correct entries shall be made of all transactions relating to the Operating JPA, which records shall be available for inspection by the Financing JPA at reasonable hours and under reasonable conditions.

Section 6.12. Protection of Security and Rights of the Financing JPA. The Operating JPA will preserve and protect the security hereof and the rights of the Financing JPA and the Lender to the 2026 Installment Payments hereunder and will warrant and defend such rights against all claims and demands of all persons.

Section 6.13. Payment of Taxes and Compliance with Governmental Regulations. The Operating JPA will pay and discharge all taxes, assessments and other governmental charges which may hereafter be lawfully imposed upon the Joint System, the Project, or any part thereof or upon the Revenues when the same shall become due. The Operating JPA will duly observe and conform with all valid regulations and requirements of any governmental authority relative to the operation of the Joint System, the Project, or any part thereof, but the Operating JPA shall not be required to comply with any regulations or requirements so long as the validity or application thereof shall be contested in good faith.

Section 6.14. Covenant to Budget.

(a) To the fullest extent permitted by law, the Operating JPA shall, at the commencement of each Fiscal Year, adopt a budget for the Joint System and the Project under the Operating JPA Joint Powers Agreement pursuant to which the Project Participants agree: (i) to pay Operation and Maintenance Costs; and (ii) to pay all amounts due under the Credit Facility and the Payment Agreement.

(b) The Operating JPA may make adjustments from time to time in such budget and may make such classifications thereof as it deems necessary, but shall not reduce budgeted amounts payable by the Project Participants unless the revenues from such reduced amounts (including Revenues payable under the Payment Agreement) will at all times be sufficient to meet the requirements of this Section.

(c) If amounts to be collected by the Operating JPA under a budget are determined after the commencement of a Fiscal Year to be insufficient to pay all Operation and Maintenance Costs and amounts due under the Credit Facility and the Payment Agreement as contemplated herein, the Operating JPA shall notify the Project Participants of such insufficiency and amend the budget for such Fiscal Year such that each Project Participant pays its allocable share of such insufficiency.

Section 6.15. Collection of Rates and Charges. The Operating JPA will have in effect at all times by-laws, rules and regulations requiring each Project Participant to pay their allocable share of Operation and Maintenance Costs, including to satisfy the requirements set forth in Section 6 of the relevant Payment Agreement.

Section 6.16. Eminent Domain Proceeds. If all or any part of the Project shall be taken by eminent domain proceedings, the Net Proceeds thereof shall be applied as follows:

(a) If: (1) the Operating JPA files with the Financing JPA and the Lender a certificate showing: (i) the estimated loss of annual revenues, if any, suffered or to be suffered by the Operating JPA by reason of such eminent domain proceedings; (ii) a general description of the additions, betterments, extensions or improvements to the Project that are proposed to be acquired and constructed by the Operating JPA from such Net Proceeds; and (iii) an estimate of the additional annual revenues to be derived from such additions, betterments, extensions or improvements; and (2) the Operating JPA, on the basis of such certificate, determines that the estimated additional annual revenues will sufficiently offset the estimated loss of annual revenues resulting from such eminent domain proceedings so that the ability of the Operating JPA to meet its obligations hereunder from Revenues will not be substantially impaired (which determination shall be final and conclusive), then the Operating JPA shall promptly proceed with the acquisition and construction of such additions, betterments, extensions or improvements substantially in accordance with such certificate and such Net Proceeds shall be applied for the payment of the costs of such acquisition and construction, and any balance of such Net Proceeds not required by the Operating JPA for such purpose shall be applied to pay 2026 Installment Payments pro rata with respect to each Project Participant's share thereof.

(b) If the foregoing conditions are not met, then such Net Proceeds shall be applied by the Operating JPA to prepay, ratably without any discrimination or preference, the 2026 Installment Payments and any other debt service in accordance with the provisions of any Contracts.

Section 6.17. Further Assurances. The Operating JPA will adopt, deliver, execute and make any and all further assurances, instruments and resolutions as may be reasonably necessary or proper to carry out the intention or to facilitate the performance hereof and for the better assuring and confirming unto the Financing JPA and the Lender of the rights and benefits provided to them herein.

Section 6.18. Enforcement of Contracts. So long as any Obligations are outstanding, and subject to Section 10.14 hereof, the Operating JPA will not voluntarily consent to or permit any rescission of, nor will it consent to any amendment to or otherwise take any action under or in connection with any contracts previously or hereafter entered into unless the Board of Directors of the Operating JPA determines by resolution that such rescission or amendment would not materially adversely affect the ability of the Operating JPA to pay the 2026 Installment Payments.

ARTICLE VII

PREPAYMENT OF 2026 INSTALLMENT PAYMENTS

Section 7.01. Prepayment.

(a) (i) The 2026 Installment Payments shall be prepaid in whole or in part on any date on which the Financing JPA and/or the Operating JPA is required to prepay amounts payable under the Credit Facility. (ii) The Operating JPA may prepay the 2026 Installment Payments as a whole, or in part, on any date in the order of payment date as directed by the Operating JPA, from moneys prepaid by one or more Project Participants under Section 5 of the Payment Agreement, and on the terms and conditions at which the Financing JPA and/or the Operating JPA is permitted to prepay amounts owed pursuant to the Credit Facility.

(b) Notwithstanding any such prepayment, the Operating JPA shall not be relieved of its obligations hereunder, including its obligations under Article IV, until the Purchase Price shall have been fully paid and the Credit Facility has been terminated and all amounts payable thereunder shall have been fully paid.

Section 7.02. Method of Prepayment. Before making any prepayment pursuant to Section 7.01, the Operating JPA shall, within five (5) days following the event permitting the exercise of such right to prepay or creating such obligation to prepay, give written notice to the Financing JPA and the Lender describing such event and specifying the date on which the prepayment will be paid, which date shall be not less than ten (10) Business Days from the date that such notice is given.

ARTICLE VIII

EVENTS OF DEFAULT AND REMEDIES OF THE FINANCING JPA

Section 8.01. Events of Default. The following constitute Events of Default:

(a) if default shall be made by the Operating JPA in the due and punctual payment of any 2026 Installment Payment or any Contract when and as the same shall become due and payable;

(b) if default shall be made by the Operating JPA in the performance of any of the agreements or covenants which are required herein to be performed by it, and such default shall have continued for a period of sixty (60) days after the Operating JPA shall have been given notice in writing of such default by the Financing JPA;

(c) if the Operating JPA shall file a petition or answer seeking arrangement or reorganization under the federal bankruptcy laws or any other applicable law of the United States of America or any state therein, or if a court of competent jurisdiction shall approve a petition filed with or without the consent of the Operating JPA seeking arrangement or reorganization under the federal bankruptcy laws or any other applicable law of the United States of America or any state therein, or if under the provisions of any other law for the relief or aid of debtors any court of competent jurisdiction shall assume custody or control of the Operating JPA or of the whole or any substantial part of its property;

(d) if an "Event of Default" (as defined in the Credit Facility) under the Credit Facility occurs; or

(e) if payment of the principal of any Contract is accelerated in accordance with its terms;

then and in each and every such case during the continuance of an Event of Default, the Financing JPA shall immediately notify the Lender of an Event of Default and follow any written directions of the Lender, which may include a direction to declare the entire principal amount of the unpaid 2026 Installment Payments and the accrued interest thereon to be due and payable immediately, and upon any such declaration the same shall become immediately due and payable, anything contained herein to the contrary notwithstanding; provided that the unpaid Purchase Price shall automatically become due and payable without the action of the Financing JPA or any other person if the unpaid Obligations shall have become immediately due and payable. Notwithstanding anything to the contrary set forth herein, the Financing JPA shall not have the right to (i) declare the unpaid Purchase Price immediately due and payable or (ii) exercise any other rights or remedies hereunder following the occurrence of an Event of Default, in each case, without the prior written direction of the Lender.

Section 8.02. Application of Funds Upon Acceleration. Upon the date of the declaration of (or automatic, as applicable) acceleration as provided in Section 8.01, all Revenues thereafter received by the Financing JPA shall be applied in the following order:

First, to the payment, without preference or priority, and in the event of any insufficiency of such Revenues ratably without any discrimination or preference, of the fees, costs and expenses of the Financing JPA, the WIFIA Lender, any agents and assignees of each of the foregoing as the case may be or the trustee with respect to any Project Bonds or Contracts, in carrying out the provisions of this Article VIII, including reasonable compensation to their respective accounts and counsel; and

Second, to the payment, without preference or priority, and in the event of any insufficiency of such moneys ratably without any discrimination or preference, of the entire principal amount of the unpaid 2026 Installment Payments and the unpaid principal amount of all Project Bonds and Contracts and the accrued interest thereon, with interest on the overdue installments at the rate or rates of interest applicable to the 2026 Installment Payments and such Project Bonds and Contracts if paid in accordance with their respective terms.

Section 8.03. Remedies of the Financing JPA. Upon the occurrence and during the continuance of an Event of Default, the Financing JPA shall have the right (but only following the prior written direction of the Lender):

(a) by mandamus or other action or proceeding or suit at law or in equity to enforce its rights against the Operating JPA or any director, officer or employee thereof, and to compel the Operating JPA or any such director, officer or employee to perform and carry out its or his or her duties under the Law and the agreements and covenants required to be performed by it or him or her contained herein;

(b) by suit in equity to enjoin any acts or things which are unlawful or violate the rights of the Financing JPA; or

(c) by suit in equity upon the happening of an Event of Default to require the Operating JPA and its directors, officers and employees to account as the trustee of an express trust

Notwithstanding anything contained herein, the Financing JPA shall not have a security interest in or mortgage on the Project, the Joint System or other assets of the Operating JPA, and no default hereunder shall result in the loss of the Project, the Joint System or other assets of the Operating JPA.

Section 8.04. [Reserved].

Section 8.05. Non-Waiver. Nothing in this article or in any other provision hereof shall affect or impair the obligation of the Operating JPA, which is absolute and unconditional, to pay the 2026 Installment Payments to the Financing JPA at the respective due dates or upon prepayment from the Revenues and the other funds herein pledged for such payment, or shall affect or impair the right of the Financing JPA and the Lender, which is also absolute and unconditional, to institute suit to enforce such payment by virtue of the contract embodied herein.

A waiver of any default or breach of duty or contract by the Financing JPA or the Lender shall not affect any subsequent default or breach of duty or contract or impair any rights or remedies on any such subsequent default or breach of duty or contract. No delay or omission by the Financing JPA, the Operating JPA or the Lender to exercise any right or remedy accruing upon any default or breach of duty or contract shall impair any such right or remedy or be construed to be a waiver of any such default or breach of duty or contract or an acquiescence therein, and every right or remedy that is conferred upon the Financing JPA, the Operating JPA or the Lender by the Law or by this article may be enforced and exercised from time to time and as often as shall be deemed expedient by the Financing JPA or the Lender.

If any action, proceeding or suit to enforce any right or exercise any remedy is abandoned or determined adversely to the Financing JPA or the Lender, the Operating JPA, the Financing JPA and the Lender shall be restored to their former positions, rights and remedies as if such action, proceeding or suit had not been brought or taken.

Section 8.06. Remedies Not Exclusive. No remedy that is conferred upon or reserved to the Financing JPA or the Lender herein is intended to be exclusive of any other remedy, and each such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing in law or in equity or by statute or otherwise and may be exercised without exhausting and without regard to any other remedy conferred by the Law or any other law.

ARTICLE IX

DISCHARGE OF OBLIGATIONS

Section 9.01. Discharge of Obligations. When:

(a) all or any portion of the 2026 Installment Payments shall have become due and payable in accordance herewith or a written notice of the Operating JPA to prepay all or any portion of the 2026 Installment Payments shall have been filed with the Financing JPA; and

(b) there shall have been irrevocably deposited with the Financing JPA at or prior to the 2026 Installment Payment Date or dates specified for prepayment, in trust for the benefit of the Financing JPA or its assigns and irrevocably appropriated and set aside to the payment of all or any portion of the 2026 Installment Payments, sufficient moneys and direct, noncallable general obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of the Treasury of the United States of America), or noncallable obligations the timely payment of principal of and interest on which are fully and unconditionally guaranteed by the United States of America, the principal of and interest on which when due will provide money that is sufficient in the opinion of an Independent Certified Public Accountant to pay all principal, prepayment premium, if any, and interest of such 2026 Installment Payments to their respective 2026 Installment Payment Dates and to cause the Obligations to no longer be outstanding under the Credit Facility, as the case may be;

(c) irrevocable provision shall have been made for paying all fees and expenses of the Financing JPA, if any; and

(d) then and in that event, the right, title and interest of the Financing JPA herein and the obligations of the Operating JPA hereunder shall, with respect to all or such portion of the 2026 Installment Payments as have been so provided for, thereupon cease, terminate, become void and be completely discharged and satisfied (except for the right of the Financing JPA and the obligation of the Operating JPA to have such moneys and such securities applied to the payment of such 2026 Installment Payments).

In such event, upon request of the Operating JPA, the Financing JPA shall execute and deliver to the Operating JPA all such instruments as may be necessary or desirable to evidence such total or partial discharge and satisfaction, as the case may be, and, in the event of a total discharge and satisfaction, the Financing JPA shall pay over to the Operating JPA, after payment of all amounts due pursuant to the Credit Facility, as an overpayment of 2026 Installment Payments, all such moneys or such securities held by it pursuant hereto, other than such moneys and such securities as are required for the payment or prepayment of the 2026 Installment Payments, which moneys and securities shall continue to be held by the Financing JPA in trust for the payment of the 2026 Installment Payments and shall be applied by the Financing JPA to the payment of the 2026 Installment Payments of the Operating JPA.

ARTICLE X

MISCELLANEOUS

Section 10.01. Liability Limited. Notwithstanding anything contained herein, the Operating JPA shall not be required to advance any moneys derived from any source of income other than the Revenues and the other funds provided herein for the payment of amounts due hereunder or for the performance of any agreements or covenants that are required to be performed by it contained herein. The Operating JPA may, however, advance moneys for any such purpose so long as such moneys are derived from a source legally available for such purpose and may be legally used by the Operating JPA for such purpose.

The obligation of the Operating JPA to make the 2026 Installment Payments is a special obligation of the Operating JPA payable from the Revenues and does not constitute a general

obligation debt of the Operating JPA or a debt of the State of California or of any political subdivision thereof in contravention of any constitutional or statutory debt limitation or restriction.

Section 10.02. Benefits of Installment Purchase Agreement Limited to Parties. Nothing contained herein, expressed or implied, is intended to give to any person other than the Operating JPA, the Financing JPA or the Lender any right, remedy or claim under or pursuant hereto. Each of the Financing JPA and the Operating JPA agrees that the Lender shall be an express third party beneficiary of the Installment Purchase Agreement, and any agreement or covenant that is required herein to be performed by or on behalf of the Operating JPA, the Financing JPA or Lender shall be for the sole and exclusive benefit of the other parties. The Lender, as a Holder of Project Bonds, shall have the right, as a third party beneficiary, to initiate and maintain suit to enforce the Payment Agreement.

Section 10.03. Successor Is Deemed Included in all References to Predecessor. Whenever the Operating JPA, the Financing JPA or the Lender is named or referred to herein, such reference shall be deemed to include the successor to the powers, duties and functions that are presently vested in the Operating JPA, the Financing JPA or the Lender, and all agreements and covenants which are required hereby to be performed by or on behalf of the Operating JPA, the Financing JPA or the Lender shall bind and inure to the benefit of the respective successors thereof whether so expressed or not.

Section 10.04. Waiver of Personal Liability. No director, officer or employee of the Operating JPA shall be individually or personally liable for the payment of the 2026 Installment Payments, but nothing contained herein shall relieve any director, officer or employee of the Operating JPA from the performance of any official duty provided by any applicable provisions of law or hereby.

Section 10.05. Article and Section Headings, Gender and References. The headings or titles of the several articles and sections hereof and the table of contents appended hereto shall be solely for convenience of reference and shall not affect the meaning, construction or effect hereof, and words of any gender shall be deemed and construed to include all genders. All references herein to "Articles," "Sections" and other subdivisions or clauses are to the corresponding articles, sections, subdivisions or clauses hereof and the words "hereby," "herein," "hereof," "hereto," "herewith" and other words of similar import refer to the Installment Purchase Agreement as a whole and not to any particular article, section, subdivision or clause hereof.

Section 10.06. Partial Invalidity. If any one or more of the agreements or covenants or portions thereof required hereby to be performed by or on the part of the Operating JPA or the Financing JPA shall be contrary to law, then such agreement or agreements, such covenant or covenants or such portions thereof shall be null and void and shall be deemed separable from the remaining agreements and covenants or portions thereof and shall in no way affect the validity hereof. The Operating JPA and the Financing JPA hereby declare that they would have executed the Installment Purchase Agreement, and each and every other article, section, paragraph, subdivision, sentence, clause and phrase hereof irrespective of the fact that any one or more articles, sections, paragraphs, subdivisions, sentences, clauses or phrases hereof or the application thereof to any person or circumstance may be held to be unconstitutional, unenforceable or invalid.

Section 10.07. [Reserved].

Section 10.08. Net Contract. The Installment Purchase Agreement shall be deemed and construed to be a net contract, and the Operating JPA shall pay absolutely net during the term hereof the 2026 Installment Payments and all other payments required hereunder, free of any deductions and without abatement, diminution or set-off whatsoever.

Section 10.09. California Law. THE INSTALLMENT PURCHASE AGREEMENT SHALL BE CONSTRUED AND GOVERNED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA.

Section 10.10. Notices. All written notices to be given hereunder shall be given by mail, facsimile or other electronic transmission or overnight mail or courier to the party entitled thereto at its address set forth below, or at such other address as such party may provide to the other party in writing from time to time, namely:

If to the Operating JPA:	Las Virgenes-Triunfo Joint Powers Authority c/o Las Virgenes Municipal Water District 4232 Las Virgenes Road Calabasas, California 91302-1994 Attn: Administering Agent
If to the Financing JPA:	Las Virgenes-Triunfo Public Financing Authority c/o Las Virgenes Municipal Water District 4232 Las Virgenes Road Calabasas, California 91302-1994 Attention: General Manager
If to the Lender:	Wells Fargo Municipal Capital Strategies, LLC _____ Attention: Telephone: Email:

Section 10.11. Effective Date. This Installment Purchase Agreement shall become effective upon its execution and delivery by each of the parties hereto, and shall terminate when the Purchase Price shall have been fully paid and the Credit Facility shall have terminated in accordance with its terms.

Section 10.12. Execution in Counterparts. This Installment Purchase Agreement may be executed in several counterparts by each of the parties hereto, each of which shall be deemed an original, and all of which shall constitute but one and the same instrument.

Section 10.13. Indemnification. The Operating JPA hereby agrees to indemnify and hold harmless the Financing JPA and its assigns and its officers and directors if and to the extent permitted by law, from and against all claims, advances, damages and losses, including legal fees and expenses, arising out of or in connection with the acceptance or the performance of its duties hereunder and under the Credit Facility; provided that no indemnification will be made for willful misconduct, negligence or breach of an obligation hereunder or under the Credit Facility by the Financing JPA.

Section 10.14. Amendments Permitted.

(a) This Installment Purchase Agreement and the rights and obligations of the Financing JPA and the Operating JPA and of the Lender may be modified or amended at any time by an amendment hereto which shall become binding upon the written consent of the Lender. No such modification or amendment may: (1) extend the fixed maturity of any 2026 Installment Payments, or reduce the amount of principal thereof or premium (if any) thereon, or extend the time of payment, or change the rate of interest or the method of computing the rate of interest thereon, or extend the time of payment of interest thereon; or (2) reduce the aforesaid percentage of 2026 Installment Payments, or permit the creation of any lien on the Revenues and other assets pledged under the Installment Purchase Agreement prior to or on a parity with the lien created by the Installment Purchase Agreement except as permitted herein.

(b) This Installment Purchase Agreement and the rights and obligations of the Financing JPA and the Operating JPA may also be modified or amended at any time by an amendment hereto which shall become binding upon adoption, but only to the extent permitted by law and only for any one or more of the following purposes: (1) to add to the covenants and agreements of the Operating JPA contained in the Installment Purchase Agreement other covenants and agreements thereafter to be observed, to pledge or assign additional security for the 2026 Installment Payments (or any portion thereof), or to surrender any right or power herein reserved to or conferred upon the Operating JPA; (2) to make such provisions for the purpose of curing any ambiguity, inconsistency or omission, or of curing or correcting any defective provision, contained in the Installment Purchase Agreement, or in regard to matters or questions arising under the Installment Purchase Agreement, as the Operating JPA may deem necessary or desirable; and (3) to modify, amend or supplement the Installment Purchase Agreement in such manner as to cause interest on the 2026 Installment Payments to remain excludable from gross income under the Code, if so excludable upon the issuance thereof. No amendment may modify any of the rights or obligations of the Lender without its written consent thereto.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK.]

IN WITNESS WHEREOF, the parties hereto have executed and attested this Installment Purchase Agreement by their officers thereunto duly authorized as of the day and year first written above.

LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY
formed October 12, 1964 relating to joint facilities of Las Virgenes Municipal Water District and Triunfo Water & Sanitation District

By: _____
Chair of the Board

ATTEST:

_____
Secretary of the Board

LAS VIRGENES-TRIUNFO PUBLIC FINANCING AUTHORITY

By: _____
Chair of the Board

ATTEST:

_____
Secretary of the Board

EXHIBIT A

DESCRIPTION OF THE PROJECT

The Pure Water Project Las Virgenes – Triunfo is located in Los Angeles County, California and consists of design and construction of:

Component	***Estimated Capital Cost***
a. Upgrades to the existing Tapia Water Reclamation Facility	
b. New Advanced Water Purification Facility	
c. Four (4) additional pipelines: new Source Water, Purified Water, Discharge and Concentrate Pipelines	
d. Upgrades to the Recycled Water Pump Station West	
e. Improvements to the Las Virgenes Reservoir	
TOTAL	

EXHIBIT B

FORM OF SUBSTITUTION STATEMENT

Las Virgenes-Triunfo Public Financing Authority
c/o Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, California 91302-1994
Attention: Deputy Treasurer

Wells Fargo Municipal Capital Strategies, LLC
_____
_____

The undersigned General Manager of the Las Virgenes Municipal Water District, on behalf of Las Virgenes-Triunfo Joint Powers Authority, a joint exercise of powers agency formed October 12, 1964 relating to joint facilities of Las Virgenes Municipal Water District and Triunfo Water & Sanitation District (the "Operating JPA"), hereby states pursuant to Section 3.02 of the Installment Purchase Agreement, dated as of _____ 1, 2026, by and between the Operating JPA and Las Virgenes-Triunfo Public Financing Authority (the "Installment Purchase Agreement") that each component of the Project (as such term is defined in the Installment Purchase Agreement) described in the first column of Exhibit A attached hereto, with an estimated cost set forth in the second column of Exhibit A, will be replaced by the corresponding improvement described in the third column of Exhibit A with an estimated cost set forth in the fourth column of Exhibit A.

Dated: _____ __, 20__

LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY
formed October 12, 1964 relating to joint facilities of Las Virgenes Municipal Water District and Triunfo Water & Sanitation District

_____
General Manager of
Las Virgenes Municipal Water District

EXHIBIT A

Components of Project to be Replaced	*Cost of Each Components of Project to be Replaced*	*Improvements to be Substituted*	*Cost of Each Improvement to be Substituted*

EXHIBIT C

FORM OF REQUISITION FROM ACQUISITION FUND

REQUISITION NO. _ FOR
DISBURSEMENT FROM ACQUISITION FUND

The undersigned hereby states and certifies:

(i) that the undersigned is the duly appointed, qualified and acting General Manager of Las Virgenes Municipal Water District, and is acting hereunder on behalf of Las Virgenes-Triunfo Joint Powers Authority, a joint exercise of powers agency formed October 12, 1964 relating to joint facilities of Las Virgenes Municipal Water District and Triunfo Water & Sanitation District (the "Operating JPA"), and as such, is familiar with the facts herein certified and is authorized to certify the same;

(ii) that, pursuant to Section 3.03 of that certain Installment Purchase Agreement, dated as of ____ 1, 2023 (the "Installment Purchase Agreement"), by and between the Las Virgenes-Triunfo Public Financing Authority and the Operating JPA, the undersigned hereby requests the Deputy Treasurer of the Operating JPA to disburse this date the following amounts from the Acquisition Fund relating to the above-captioned obligations, to the payees designated on the attached Exhibit A;

(iii) that each obligation mentioned herein has been incurred by the Operating JPA and is a proper charge against the Acquisition Fund;

(iv) that any approval required under the California Environmental Quality Act, as amended (Division 13 of the California Public Resources Code), prior to the expenditure of such amount for the purpose set forth on the attached Exhibit A has been received and is final; and

(v) that there has not been filed with or served upon the Operating JPA notice of any lien, right to lien or attachment upon, or claim affecting the right to receive payment of, any of the moneys payable to any of the payees named on the attached Exhibit A, which has not been released or will not be released simultaneously with the payment of such obligation, other than materialmen's or mechanics' liens accruing by mere operation of law.

Dated: _____, 20__

LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY
formed October 12, 1964 relating to joint facilities of Las Virgenes Municipal Water District and Triunfo Water & Sanitation District

By: _____
General Manager of Las Virgenes Municipal Water District

EXHIBIT A

ACQUISITION FUND DISBURSEMENTS

Item Number	***Payee Name and Address***	***Purpose of Obligation***	***Amount***

AGENDA ITEM NO. 11.A

DATE: April 7, 2026

TO: Board of Directors

FROM: Water Operations

SUBJECT: **Contractual Laboratory Services: Award**

The Las Virgenes-Triunfo Joint Powers Authority (JPA) approved funding for contract laboratory services in the adopted JPA Budget. This recommendation is before the LVMWD Board, acting as Administering Agent of the JPA, as authorized by the JPA Agreement.

SUMMARY:

The District operates and maintains a state-certified water quality laboratory at the Tapia Water Reclamation Facility (Tapia). The District's laboratory technicians conduct analytical work for 49 daily, weekly and monthly parameters; however, it is not feasible for staff to maintain the necessary instrumentation, supplies, or certifications required to analyze all the constituents for regulatory compliance. Therefore, the services of contract laboratories are necessary to complete the analytical work and reporting that are beyond in-house capabilities. A request for proposals was posted to OpenGov from February 9 to February 27, 2026, for the solicitation of proposals from qualified contract laboratories. Six proposals were received with the lowest responsive bid coming from Eurofins Drinking Water and Wastewater West, LLC (Eurofins).

Eurofins proposed to perform analytical work for annual regulatory compliance and a two-year special sampling plan at a cost of $481,962.43. To capture costs for unexpected state and federal regulatory requirements, duplicate analyses, disaster (i.e. fire) analyses, and preliminary testing related to the Advanced Water Purification Facility, an additional 10% contingency is recommended. The recommendation is to accept the proposal from Eurofins, authorize the General Manager to execute a one-year professional services agreement, in an amount not to exceed $530,158, with four one-year renewal options including 3% annual inflationary adjustments, for contractual laboratory services.

RECOMMENDATION(S):

Accept the proposal from Eurofins Drinking Water and Wastewater West, LLC, and authorize the General Manager to execute a one-year professional services agreement, in an amount not to exceed $530,158, with four one-year renewal options including 3% annual inflationary adjustments, for contractual laboratory services.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

Sufficient funding for this work is available in adopted Fiscal Year 2025-26 Budget and will be recommended in proposed future fiscal year budgets. No additional appropriation is required.

DISCUSSION:

The District operates and maintains a state-certified water quality laboratory at the Tapia Water Reclamation Facility (Tapia). Laboratory technicians collect samples for process control and regulatory compliance and are certified to analyze 49 routine monitoring requirements. Unfortunately, it is not cost effective for laboratory technicians to maintain the necessary instrumentation, supplies, or certifications required to analyze all the constituents for regulatory compliance. The services of contract laboratories are necessary for analytical work beyond in-house capabilities.

A laboratory is retained to analyze drinking water, wastewater, groundwater, surface water, stormwater and compost samples as needed. Below are just a few examples of the analytical services that a contract laboratory provides.

- Inorganic/Organic Analytes
- Metals
- Nutrients
- Ion Chromatography
- Disinfectants & Disinfectant By-Products
- Gas Chromatography
- Synthetic Organic Compounds
- Volatile/Semi-volatile Compounds
- General Physical Water Quality
- Bacteriological Analysis
- Radiochemistry
- Pesticides
- Unregulated Contaminant Monitoring Rule (UCMR)

A formal solicitation for proposals was posted to OpenGov on February 9, 2026. Six proposals from qualified laboratories were received. In the request for proposals, laboratories were instructed to submit pricing for analytical constituents that are monitored for existing regulatory compliance. A second and third table were added for laboratories to submit pricing for a two-year sampling plan and a four-month sampling plan at the Las Virgenes Reservoir. The two-year and four-month sampling plans are required by the State Water Resources Control Board, Division of Drinking Water to establish baseline water quality conditions in the reservoir prior to supplementing advanced purified water for indirect potable reuse.

Below is the pricing summary of the submitted proposals:

	Annual Regulatory Constituents	Two-Year Sampling Plan	Short-term Sampling Plan	**Total**

BSK Associates, Inc.	$255,758.00	$260,415.00	$141,735.00	**$657,908.00**
Enthalpy Analytical	$284,499.00	$268,380.00	$154,767.00	**$707,646.00**
Eurofins West, LLC	$191,526.00	$189,810.00	$100,626.43	**$481,962.43**
FGL Environmental	$228,024.00	$271,485.00	$142,600.00	**$642,109.00**
Positive Lab Service	$360,348.00	$445,095.00	$242,097.00	**$1,047,540.00**
Weck Laboratories	$250,700.00	$204,660.00	$76,798.00	**$532,158.00**

Staff evaluated the qualifications, experience, technical services, field of testing certifications, and costs for each professional laboratory. The proposal submitted by Eurofins Drinking Water and Wastewater West, LLC (Eurofins), presented the required elements to successfully comply with state and federal water and wastewater analytical methodology. District staff reached out to Eurofins key personnel to confirm they could produce report files in the necessary Electronic Data Deliverable and Electronic Transfer File formats. Eurofins is a nationally known and locally represented laboratory with a wide network of affiliated specialty laboratories. Staff have worked with Eurofins in the past and have first-hand experience with the company. Staff is confident that Eurofins will provide reliable analytical testing and reports.

The submitted proposals used analytical counts from 2025. Additional analyses are anticipated; therefore, a 10% contingency is requested on top of the proposed amount. This amount will cover unexpected state and federal regulatory requirements, duplicate analyses, disaster (i.e. fire) analyses, and preliminary testing related to the Advanced Water Purification Facility. The recommendation is to accept the proposal from Eurofins and award a one-year professional services agreement, in the amount of $530,158, with four, one-year renewal options including 3% annual inflationary adjustments.

GOALS:

Provide Safe and Quality Water with Reliable Services

Prepared by: Veronica Hurtado, Water Reclamation Manager