LAS VIRGENES MUNICIPAL WATER DISTRICT

4232 Las Virgenes Road, Calabasas, CA 91302

AGENDA
REGULAR MEETING
September 15, 2020, 9:00 AM

Public Participation for Meetings of Las Virgenes Municipal Water District Board of Directors in Response to COVID-19

On March 4, 2020, Governor Newsom proclaimed a State of Emergency in California as a result of the threat of COVID-19. On March 17, 2020, Governor Newsom issued Executive Order N-29-20 (superseding the Brown Act-related provisions of Executive Order N-25-20 issued on March 12, 2020), which allows a local legislative body to hold public meetings via teleconferencing and to make public meetings accessible telephonically or otherwise electronically to all members of the public seeking to observe and to address the local legislative body. Pursuant to Executive Order N-29-20, please be advised that members of the Las Virgenes Municipal Water District will participate in meetings telephonically.

PUBLIC PARTICIPATION: Pursuant to Executive N-29-20 and given the current health concerns, members of the public can access meetings live on-line, with audio and limited video, at www.LVMWD.com/LiveStream. In addition, members of the public can submit comments electronically for consideration by sending them to www.LVMWD.com/LiveStream. To ensure distribution to the members of the Las Virgenes Municipal Water District Board of Directors prior to consideration 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 Josie Guzman, Executive Assistant/Clerk of the Board, at (818) 251-2123 or jguzman@lvmwd.com 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 implementation thereof. Any person who requires a disability-related modification or accommodation, in order to observe and/or offer public comment may request such reasonable modification, accommodation, aid, or service by contacting the Executive Assistant/Clerk of the Board by telephone at (818) 251-2123 or via email to jguzman@lvmwd.com no later than 9:00 AM on the day before the scheduled 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.

A **List of Demands: September 15, 2020 (Pg. 5)**
Receive and File

B **Minutes: Regular Meeting of September 1, 2020 (Pg. 20)**
Approve

C **Directors' Per Diem: August 2020 (Pg. 28)**

Ratify

D **Westlake Filtration Plant Woolsey Fire Repairs: Approval of Scope Change (Pg. 35)**

Authorize the General Manager to approve proposed Scope Change No. 2, in the amount of $9,175, for M6 Consulting, Inc., to provide additional electrical design work for repairs at the Westlake Filtration Plant.

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

A **Legislative and Regulatory Updates**

B **Water Supply Conditions Update (Pg. 41)**

6 **TREASURER**

7 **BOARD OF DIRECTORS**

A **Response to Coronavirus (COVID-19) Pandemic: Continuation of Emergency (Pg. 43)**

Approve the continuation of an emergency declaration for response to the coronavirus (COVID-19) pandemic.

8 **ENGINEERING AND EXTERNAL AFFAIRS**

A **Calleguas-Las Virgenes Interconnection Project: Construction Award (Pg. 45)**

Accept the request from Toro Enterprises, Inc., to withdraw its bid due to a clerical error; authorize the General Manager to execute a construction contract with Sully-Miller Contracting Company, in the amount of $4,683,270.55; accept the proposal from Cannon Corp Engineering Consultants and authorize the General Manager to execute a professional services agreement, in the amount of $265,990, for construction management and inspection services; appropriate an additional $500,000 in funding; and authorize the General Manager to execute a Memorandum of Agreement with the City of Westlake Village for reimbursement of street repaving and fiber optic work for the Calleguas-Las Virgenes Interconnection Project.

B **Rancho Solar Field Facility Landscaping Project: Call for Bids (Pg. 111)**

Authorize the issuance of a Call for Bids for the Rancho Solar Field Facility Landscaping Project.

C **2020 Urban Water Management Plan: Award (Pg. 126)**

Accept the proposal from Stantec Consulting Services, Inc., and authorize the General Manager to execute a professional service agreement, in the amount of $64,023, for preparation of the 2020 Urban Water Management Plan.

9 **NON-ACTION ITEMS**

A **Organization Reports**

B **Director's Reports on Outside Meetings**

C **General Manager Reports**

(1) General Business

(2) Follow-Up Items

D **Director's Comments**

10 **FUTURE AGENDA ITEMS**

11 **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

12 **CLOSED SESSION**

13 **OPEN SESSION AND 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: LYNDA LO-HILL, TREASURER

Payments for Board Meeting of : September 15, 2020

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

Checks Nos. 85768 through 85851 were issued less voids/stop payments in the total amount of **$ 383,713.88**

Payments through wire transfers as follows:

8/31/2020	Metropolitian Water District	Payment for water deliveries in the month of June 2020	$ 2,246,523.78
		Sub-Total Wires	**$ 2,246,523.78**
		Total Payments	**$ 2,630,237.66**

(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 LISTING FOR BOARD MEETING
09/15/20

Company Name	Company No.	Check No. 85768 thru 85804 09/01/20 Amount	Check No. 85805 thru 85851 09/08/20 Amount	Total
Potable Water Operations	101	24,615.40	38,153.94	62,769.34
Recycled Water Operations	102			-
Sanitation Operations	130	1,482.81		1,482.81
Potable Water Construction	201	41.25		41.25
Water Conservation Construction	203			-
Sani- Construction	230			-
Potable Water Replacement	301	16,654.75		16,654.75
Reclaimed Water Replace	302			-
Sanitation Replacement	330	2,362.50		2,362.50
Internal Service	701	60,216.69	54,282.67	114,499.36
JPA Operations	751	66,547.93	64,420.90	130,968.83
JPA Construction	752			-
JPA Replacement	754	15,539.38	39,395.66	54,935.04
	Total Printed	**187,460.71**	**196,253.17**	**383,713.88**
	Net Total	**187,460.71**	**196,253.17**	**383,713.88**

MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
700 North Alameda Street
Los Angeles, CA, 90012-2944

INVOICE

Billed To:

Las Virgenes Municipal Water District

Service Address

4232 Las Virgenes Road
Calabasas, CA 91302

June 2020	Page No. 1 of 1
Mailed: 07/10/2020	Due Date: 08/31/2020
Invoice Number: 10118	Revision: 0

NOTICE

The MWD Administrative Code Section 4507 and 4508 require that payment must be made in "Good Funds" by the due date or the payment will be considered delinquent and an additional charge shall be assessed.

DELIVERIES	Volume (AF)
Total Water Treated Delivered	1,943.9
Total Water Untreated Delivered	

SALES	Type	Volume (AF)	Rate ($ /AF)	Total ($)
Full Service	Tier 1 Supply Rate	1,943.9	$208.00	$404,331.20
	System Access Rate	1,943.9	$346.00	$672,589.40
	Water Stewardship Rate	1,943.9	$65.00	$126,353.50
	System Power Rate	1,943.9	$136.00	$264,370.40
	Treatment Surcharge	1,943.9	$323.00	$627,879.70
	SUBTOTAL			$2,095,524.20

OTHER CHARGES AND CREDITS	Rate ($ /AF)
Capacity Charge(Payment Schedule: M)	$33,660.00
Readiness To Serve Charge(Payment Schedule: M)	$117,339.58
SUBTOTAL	$150,999.58

ADDITIONAL INFORMATION	Volume (AF)	Tier1 %	Peak Day	Flow (CFS)
Capacity Charge			8/9/2018	45.9
Purchase Order Firm Delivery To Date (Jan 2015 to Dec 2024)	105,683.8			
Tier 1 Annual Limit (For Current Calendar Year)	24,359.0			
Tier 1 YTD Deliveries (For Current Calendar Year)	9,094.0	37.3		
Tier 1 Current Month Deliveries	1,943.9			
Purchase Order Commitment (Jan 2015 to Dec 2024)	162,390.0			

	Volume AF	Amount Now Due
INVOICE TOTAL	1,943.9	$2,246,523.78

Approved for Payment:

John Zhao 7/15/20
John Zhao Date

Approved for Payment
David W. Pedersen, P.E. 07/22/20

PAID
Wired @ 8/31/20
JC

Batch Number - 281917

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Itm	Key Co	Amount	Invoice Number
85768	09/01/20	19269	ACC BUSINESS	INTERNET 7/11~8/10	PV	171584	001	00701	898.50	202281556
				Payment Amount					898.50	
85769	09/01/20	20424	AT&T	BLDG 1 INTERNET 8/18~9/17	PV	171593	001	00751	64.20	8877/081720
				Payment Amount					64.20	
85770	09/01/20	18071	BLUE DIAMOND MATERIALS	5.95 TN A/C FINE 1/2	PV	171541	001	00701	321.48	1933344
				Payment Amount					321.48	
85771	09/01/20	21446	BRAX COMPANY INC.	SLUDGE PUMP REPAIR	PV	171545	001	00701	27,172.24	31076
				Payment Amount					27,172.24	
85772	09/01/20	15635	BRENNTAG PACIFIC, INC.	ANTI FOAM	PV	171571	001	00751	2,090.24	BPI71950
				Payment Amount					2,090.24	
85773	09/01/20	18860	CHEMTREAT, INC.	AUG'20 WTR TRMNT	PV	171542	001	00701	739.86	CIN010015869
				Payment Amount					739.86	
85774	09/01/20	4586	CONSOLIDATED ELECTRICAL DISTRIBUTORS	RELAYS/BASES/ TIE WRAPS	PV	171583	001	00701	807.53	9009-412703
				Payment Amount					807.53	
85775	09/01/20	15755	CORE & MAIN LP	AIR VACS	PV	171555	001	00701	1,389.63	M813730
		Alt Payee 15948	CORE & MAIN LP P. O. BOX 28330 ST. LOUIS MO 63146							
				Payment Amount					1,389.63	
85776	09/01/20	19033	DENOVO VENTURES, LLC	8/3~8/5 JDE-KRNOS INTRGN	PV	171552	001	00701	1,850.00	68342
				Payment Amount					1,850.00	
85777	09/01/20	4943	ENVICOM CORPORATION	P/E 7/25 JPA SOLAR PH 2	PV	171581	001	00701	15,539.38	00015838
				Payment Amount					15,539.38	
85778	09/01/20	2654	FAMCON PIPE	HYDRANTS	PV	171556	001	00701	16,589.25	S100034810.00 1
				Payment Amount					16,589.25	
85779	09/01/20	19397	FIRST CHOICE	8/20 COFFEE	PV	171589	001	00701	59.74	385035

Batch Number - 281917

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Itm	Key Co	Amount	Invoice Number
			SERVICES	SRV-RLV						
				8/20 COFFEE SRV-TAPIA	PV	171590	001	00701	75.40	385036
				8/20 COFFEE SRV-HQ	PV	171591	001	00701	43.80	385033
				Payment Amount					178.94	
85780	09/01/20	21529	FRAKER FIRE PROTECTION, INC.	ANNL FIRE EXT INSP-OPS	PV	171559	001	00701	662.30	815307
				ANNL FIRE EXT INSP-TAPIA	PV	171560	001	00701	438.55	815308
				ANNL FIRE EXT INSP-RLV	PV	171561	001	00701	599.65	815309
				Payment Amount					1,700.50	
85781	09/01/20	18845	FREELITE SKYLIGHTS	DEP-SKYLITES-BLDG 7	PV	171582	001	00701	5,000.00	207835
				Payment Amount					5,000.00	
85782	09/01/20	6770	G.I. INDUSTRIES	8/1~8/15 SHOP BLDG	PV	171580	001	00701	1,091.46	2954361-0283-0
		Alt Payee 6771	G.I. INDUSTRIES P. O. BOX 541065 LOS ANGELES CA 90054-1065							
				Payment Amount					1,091.46	
85783	09/01/20	7421	HAMNER, JEWELL AND ASSOCIATES	TWN LKS 4/15~7/31	PV	171550	001	00701	41.25	200331
				P/E 7/31-EMGCY GNRTRS	PV	171551	001	00701	106.25	200330
				Payment Amount					147.50	
85784	09/01/20	18646	HDR ENGINEERING, INC.	P/E 8/1 WSDR-CREEKSIDE	PV	171554	001	00701	1,874.00	1200285282
				Payment Amount					1,874.00	
85785	09/01/20	2745	JOEY M'S UPHOLSTERERS	REPAIR SEAT-#899	PV	171573	001	00701	320.00	07825
				Payment Amount					320.00	
85786	09/01/20	2611	LA DWP	TWN LKS P/S 7/14~8/13	PV	171594	001	00101	11,857.63	875698/082020
				Payment Amount					11,857.63	

Batch Number - 281917

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Itm	Key Co	Amount	Invoice Number
85787	09/01/20	3352	LAS VIRGENES MUNICIPAL WATER DISTRICT	L/S #2 7/16~8/13	PV	171576	001	00130	54.97	0570/081920
				JED SMTH P/S 7/13~8/10	PV	171577	001	00101	54.97	0254/081920
				L/S #1 7/16~8/13	PV	171578	001	00130	54.97	1775/081920
				RLV FARM 7/17~8/11	PV	171579	001	00751	174.65	2080/081920
				Payment Amount					339.56	
85788	09/01/20	4591	LOS ANGELES COUNTY FIRE DEPT.	CUPA#6353 WL P/S FY20-21	PV	171562	001	00101	2,984.00	IN032449
				CUPA#9634 L/S 1 FY20-21	PV	171563	001	00130	503.00	IN0322246
				CUPA#5836 FARM FY20-21	PV	171564	001	00751	503.00	IN0323060
				CUPA#5838 RLV FY20-21	PV	171565	001	00751	1,704.00	IN0323061
				CUPA#5826 HQ FY20-21	PV	171566	001	00701	5,021.00	IN0323058
				CUPA#7282 TAPIA FY20-21	PV	171567	001	00751	3,318.00	IN0323261
				CUPA#6258 L/S 2 FY20-21	PV	171568	001	00130	503.00	IN0321717
				CUPA#6453 WLFP FY20-21	PV	171569	001	00101	2,636.00	IN0324454
				Payment Amount					17,172.00	
85789	09/01/20	21574	METERSYS	PROJECT MGMT AMR/AMI	PV	171558	001	00701	16,548.50	INV-000499
				Payment Amount					16,548.50	
85790	09/01/20	3605	MITCHELL INSTRUMENT CO.	ELECTRN PPE-A.T.	PV	171572	001	00701	383.07	804743306
				Payment Amount					383.07	
85791	09/01/20	15469	OLYMPIC PAINTING CO.	PAINTING PWP DEMO BLDG	PV	171574	001	00751	1,800.00	14207
				Payment Amount					1,800.00	
85792	09/01/20	18505	RAFTELIS FINANCIAL	P/E 7/31 RATE STDY	PV	171553	001	00701	15,262.50	16166

Batch Number - 281917

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Itm	Key Co	Amount	Invoice Number
			CONSULTANTS, INC.							
				Payment Amount					15,262.50	
85793	09/01/20	20583	RT LAWRENCE CORPORATION	LOCKBOX FEES-JUL'20	PV	171544	001	00701	1,027.51	44180
				LOCKBOX FEES-MAY'20	PV	171596	001	00701	1,045.19	41178
				LOCKBOX FEES-JUN'20	PV	171597	001	00701	1,136.31	44179
				Payment Amount					3,209.01	
85794	09/01/20	15800	SAFE AND BEAUTIFUL TREE CO., INC.	WEED ABTMNT-3 TANK SITES	PV	171592	001	00101	2,300.00	81020
				Payment Amount					2,300.00	
85795	09/01/20	18973	SOUTHERN COUNTIES OIL	LOWASH & RANDO OILS	PV	171575	001	00101	1,176.22	1688008-IN
				LOWASH & RANDO OILS	PV	171575	002	00101	780.52	1688008-IN
				Payment Amount					1,956.74	
85796	09/01/20	20898	SDI PRESENCE LLC	P/E 7/31 ERP CONSLT STDY	PV	171588	001	00701	2,362.50	5078
		Alt Payee	20936 SDI PRESENCE LLC 29290 NETWORK PLACE CHICAGO IL 60673-1292							
				Payment Amount					2,362.50	
85797	09/01/20	21057	SIMI VALLEY FORD	RODENT DMG RPR-#926	PV	171546	001	00701	1,837.93	C45814
				Payment Amount					1,837.93	
85798	09/01/20	2958	SOUTHERN CALIFORNIA GAS CO	CONDUIT 7/20~8/18	PV	171595	001	00101	14.30	8400/082020
				Payment Amount					14.30	
85799	09/01/20	3789	T & T TRUCK & CRANE SERVICE	CRANE SRV-MCCOY P/S	PV	171548	001	00701	780.00	0147706-IN
				Payment Amount					780.00	
85800	09/01/20	16164	TECHNIQUE DATA SYSTEMS	CK SCNR MNT 10/20~10/21	PV	171570	001	00701	426.00	054490
				Payment Amount					426.00	
85801	09/01/20	12149	THATCHER CO.	3992.9 GAL	PV	171585	001	00701	5,869.57	277444

Batch Number - 281917

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Itm	Key Co	Amount	Invoice Number
			OF CALIFORNIA	BISULFITE						
				3904 GAL	PV	171587	001	00701	5,739.13	277878
				BISULFITE						
				Payment Amount				11,608.70		
85802	09/01/20	17645	TORO ENTERPRISES INC.	RPR HEATING LOOP-DGSTR 3	PV	171543	001	00701	14,241.08	13837
				Payment Amount				14,241.08		
85803	09/01/20	20880	TPX COMMUNICATIONS	SRV 8/16~9/15	PV	171549	001	00701	2,031.66	133387017-0
				SRV 8/16~9/15	PV	171549	002	00701	1,683.27	133387017-0
				SRV 8/16~9/15	PV	171549	004	00701	366.87	133387017-0
				SRV 8/16~9/15	PV	171549	007	00701	2,053.10	133387017-0
				Payment Amount				6,134.90		
85804	09/01/20	6248	ZENNER PERFORMANCE METERS, INC.	METERS	PV	171557	001	00701	1,451.58	0054387-IN
		Alt Payee	19000	ZENNER PERFORMANCE METER INC. 15280 ADDISON RD. #100 ADDISON TX 75001						
				Payment Amount				1,451.58		
				Total Amount of Payments Written				187,460.71		
				Total Number of Payments Written			37			

Batch Number - 281950

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Itm	Key Co	Amount	Invoice Number
85805	09/08/20	20389	AIRGAS SPECIALTY PRODUCTS	30,920 LBS HYDROXIDE	PV	171680	001	00701	3,047.17	131665120
		Alt Payee 20559	AIRGAS SPECIALTY PRODUCTS P. O. BOX 934434 ATLANTA GA 31193-4434							
				Payment Amount					3,047.17	
85806	09/08/20	19993	ALEXANDER'S CONTRACT SERVICES, INC.	MTR READS 7/28~8/21	PV	171659	001	00701	19,099.31	102978
				Payment Amount					19,099.31	
85807	09/08/20	2869	AT&T	SRV 6/23~9/22	PV	171675	001	00101	2.48	7426/082320
				SRV 6/23~9/22	PV	171676	001	00101	2.85	2430/082320
				SRV 8/20~9/19	PV	171677	001	00101	49.95	2150/082020
				Payment Amount					55.28	
85808	09/08/20	18551	B R FROST COMPANY INC.	INSTALL BIBIGUARDS	PV	171654	001	00701	33,940.00	1197
				Payment Amount					33,940.00	
85809	09/08/20	20491	BEST BEST & KRIEGER LLP	P/E 7/31 FED LBBY	PV	171634	001	00701	7,500.00	884213
				P/E 7/31 ST LBBY	PV	171635	001	00701	5,000.00	884214
				Payment Amount					12,500.00	
85810	09/08/20	19270	COMMUNICATION S RELAY, LLC	AUG'20 SITE RENT-CASTRO	PV	171600	001	00101	983.74	58290
				SEP'20 SITE RENT-CASTRO	PV	171601	001	00101	983.74	58338
				Payment Amount					1,967.48	
85811	09/08/20	4586	CONSOLIDATED ELECTRICAL DISTRIBUTORS	CONTACTOR RPR KIT/COIL	PV	171681	001	00701	627.41	9009-413357
				Payment Amount					627.41	
85812	09/08/20	19033	DENOVO VENTURES, LLC	8/3~8/13 JDE-KRNOS INTRGN	PV	171637	001	00701	1,693.75	68406
				8/17~8/21 JDE-KRNOS INTRGN	PV	171638	001	00701	2,115.00	68606
				Payment Amount					3,808.75	

Batch Number - 281950

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Itm	Key Co	Amount	Invoice Number
85813	09/08/20	19950	DIRECT SYSTEMS SUPPORT	IBM MAINT 10/20~9/21	PV	171656	001	00701	4,379.40	57384
				Payment Amount					4,379.40	
85814	09/08/20	21615	EKO SUBSTANCE THREE LLC	RFND BAL-CLOSED A/C	PV	171617	001	00101	939.58	083730
				Payment Amount					939.58	
85815	09/08/20	8923	ENVIRONMENTAL EXPRESS, INC.	SPE STANDARDS	PV	171611	001	00701	145.29	1000614141
				Payment Amount					145.29	
85816	09/08/20	2658	FEDERAL EXPRESS CORP	PKG DLVRD 8/24	PV	171605	001	00701	18.24	7-107-15046
				Payment Amount					18.24	
85817	09/08/20	6770	G.I. INDUSTRIES	9/20 DISP-RLV	PV	171684	001	00751	96.64	2954435-0283-2
				9/20 DISP-RLV FARM	PV	171685	001	00751	96.64	2954436-0283-0
	Alt Payee	6771	G.I. INDUSTRIES P. O. BOX 541065 LOS ANGELES CA 90054-1065							
				Payment Amount					193.28	
85818	09/08/20	20970	GARDA CL WEST, INC.	EXCESS LIAB/TIME FEES	PV	171636	001	00701	67.40	20443922
				Payment Amount					67.40	
85819	09/08/20	15816	GEOTECH ENVIRONMENTAL EQUIPMENT, INC.	FILTERS	PV	171612	001	00701	1,075.24	625098
				Payment Amount					1,075.24	
85820	09/08/20	21333	GOMEZ LANDSCAPE & TREE CARE	TRIM OAKS-DARDENNE TNK	PV	171604	001	00101	1,800.00	B37841
				Payment Amount					1,800.00	
85821	09/08/20	21624	JUDITH GOTTSTEIN	RFND BAL-CLOSED A/C	PV	171616	001	00101	110.64	075719
				Payment Amount					110.64	
85822	09/08/20	2701	GRAINGER,	CLAMP METER	PV	171623	001	00701	478.40	9618177233

Batch Number - 281950

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Itm	Key Co	Amount	Invoice Number
			INC.							
				MOUSE TRAP-HQ	PV	171624	001	00701	32.34	9619352892
				MOUSE TRAPS-TAPIA	PV	171626	001	00701	12.62	9619134753
				AED PADS	PV	171627	001	00701	427.40	9616703717
				CENTER PUNCH	PV	171628	001	00701	16.16	9617571998
				BANDSAW BLADES	PV	171629	001	00701	168.24	9613177287
				THRUST WASHERS	PV	171630	001	00701	18.56	9618131198
				HAND SWAGING TOOL	PV	171631	001	00701	263.68	9615707784
				DRILLING SCREWS	PV	171632	001	00701	14.54	9616542867
		Alt Payee	5453 GRAINGER, INC. DEPT 805178142 PALATINE IL 60038-0001							
				Payment Amount					1,431.94	
85823	09/08/20	2705	HACH COMPANY	LCD SCREEN-CONTROLLER	PV	171650	001	00701	223.63	12070539
				LAB TEST SUPPLIES	PV	171651	001	00701	2,782.43	12076494
				AIR BLAST SYSTEM	PV	171652	001	00701	2,595.20	12081998
		Alt Payee	6442 HACH COMPANY 2207 COLLECTIONS CENTER DR CHICAGO IL 60693							
				Payment Amount					5,601.26	
85824	09/08/20	4525	HARRINGTON INDUSTRIAL PLASTICS INC.	CONDUIT CLAMPS	PV	171683	001	00751	125.17	005C9103
		Alt Payee	7132 HARRINGTON INDUSTRIAL PLASTICS LLC P. O. BOX 5128 CHINO CA 91708-5128							
				Payment Amount					125.17	
85825	09/08/20	21616	JOHN/ALICE HEITMAN	RFND BAL-CLOSED A/C	PV	171618	001	00101	154.23	012261
				Payment Amount					154.23	

Batch Number - 281950

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Itm	Key Co	Amount	Invoice Number
85826	09/08/20	2727	IDEXX LABORATORIES	LAB SUPPLIES	PV	171657	001	00701	237.36	3069011900
		Alt Payee	6447 IDEXX LABORATORIES P. O. BOX 101327 ATLANTA GA 30392-1327							
				Payment Amount					237.36	
85827	09/08/20	20856	INTERNATIONAL PRINTING & TYPESETTING INC	15 BOX BUSINESS CARDS	PV	171642	001	00701	804.17	21922.8
				Payment Amount					804.17	
85828	09/08/20	21197	JACOBS ENGINEERING GROUP INC.	P/E 7/24 PH 2 WHT PAPER STDY	PV	171653	001	00701	15,187.88	W9Y23500-015
				Payment Amount					15,187.88	
85829	09/08/20	2611	LA DWP	RECTIFIER 7/24~8/25	PV	171678	001	00101	42.96	851260/082520
				Payment Amount					42.96	
85830	09/08/20	3352	LAS VIRGENES MUNICIPAL WATER DISTRICT	TAPIA 7/17~8/11	PV	171667	001	00751	428.16	1760/081920
				RLV 7/17~8/11	PV	171668	001	00751	390.09	2090/081920
				HQ PWP/DEMO 7/17~8/11	PV	171669	001	00751	315.63	2620/081920
				FIRE PRTCN #8 7/17~8/11	PV	171670	001	00701	7.50	2650/081920
				FIRE PRTCN #7 7/17~8/11	PV	171671	001	00701	7.50	2654/081920
				BLDG#7 7/17~8/11	PV	171672	001	00701	828.46	2656/081920
				BLDG#2 7/17~8/11	PV	171673	001	00701	366.75	2658/081920
				HQ BLDG#8 7/17~8/11	PV	171674	001	00701	318.73	2647/081920
				Payment Amount					2,662.82	
85831	09/08/20	2814	MCMASTER-CARR SUPPLY CO	CRIMP LUG	PV	171608	001	00101	33.17	43633372
				WIRE CONNECTORS	PV	171609	001	00751	51.83	43699860

Batch Number - 281950

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Itm	Key Co	Amount	Invoice Number
				PVC FITTINGS	PV	171610	001	00101	69.03	44065339
		Alt Payee	3197 MC MASTER-CARR P. O. BOX 7690 CHICAGO IL 60680-7690							
				Payment Amount					154.03	
85832	09/08/20	14322	MILES CHEMICAL COMPANY, INC	53 GAL HYPOCHLORITE	PV	171614	001	00751	217.94	603006
				Payment Amount					217.94	
85833	09/08/20	19956	M6 CONSULTING, INC.	P/E 7/31 W/F CONSLT-RLV	PV	171655	001	00701	5,455.66	1430-20
				Payment Amount					5,455.66	
85834	09/08/20	16372	OLIN CORPORATION - CHLOR ALKALI	4,954 GAL HYPOCHLORITE	PV	171645	001	00701	4,172.88	2867949
				4,832 GAL HYPOCHLORITE	PV	171646	001	00701	4,070.11	2868584
				4,832 GAL HYPOCHLORITE	PV	171647	001	00701	4,070.11	2870998
				4,908 GAL HYPOCHLORITE	PV	171682	001	00701	4,134.13	2872196
		Alt Payee	16373 OLIN CORPORATION - CHLOR ALKALI P.O. BOX 402766 ATLANTA GA 30384-2766							
				Payment Amount					16,447.23	
85835	09/08/20	21617	NANCY PISCITELLI	RFND BAL-CLOSED A/C	PV	171619	001	00101	136.21	083555
				Payment Amount					136.21	
85836	09/08/20	8484	PRAXAIR DISTRIBUTION, INC	WELDING SUPPLIES	PV	171606	001	00751	361.66	98389471
				MOBILE WELDING SUPPLIES	PV	171633	001	00701	616.68	98337147
		Alt Payee	8898 PRAXAIR DISTRIBUTION INC. DEPT. LA 21511 PASADENA CA 91185-1511							
				Payment Amount					978.34	

Batch Number - 281950

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Itm	Key Co	Amount	Invoice Number
85837	09/08/20	21623	AMINDER S. RANDHAWA	RFND BAL-CLOSED A/C	PV	171615	001	00101	379.16	084021
				Payment Amount					379.16	
85838	09/08/20	21594	RECYCLED WOOD PRODUCTS	130 YDS WOOD CHIPS	PV	171660	001	00701	1,545.70	197560
				130 YDS WOOD CHIPS	PV	171661	001	00701	1,545.70	197602
				130 YDS WOOD CHIPS	PV	171662	001	00701	1,545.70	197693
				130 YDS WOOD CHIPS	PV	171663	001	00701	1,545.70	197739
				130 YDS WOOD CHIPS	PV	171664	001	00701	1,545.70	197883
				130 YDS WOOD CHIPS	PV	171665	001	00701	1,545.70	197974
				Payment Amount					9,274.20	
85839	09/08/20	21484	RMG COMMUNICATIONS	AMR/AMI VIDEO SERIES	PV	171666	001	00701	740.95	1107
				Payment Amount					740.95	
85840	09/08/20	16022	ROLLS SCAFFOLD & EQUIPMENT, INC	SCFLD-WLK 7/20~8/16	PV	171649	001	00701	2,268.02	6085836S1C
				Payment Amount					2,268.02	
85841	09/08/20	20124	RON'S PORTABLE WELDING	WELDG@600 KANAN DUME	PV	171607	001	00701	220.00	6709
				Payment Amount					220.00	
85842	09/08/20	17174	ROTH STAFFING COMPANIES, LP	TEMP SRV 8/10~8/14-D.P	PV	171640	001	00701	1,064.00	13919180
				Payment Amount					1,064.00	
85843	09/08/20	21618	KAREN ROXBOROUGH	RFND BAL-CLOSED A/C	PV	171620	001	00101	171.10	072856
				Payment Amount					171.10	
85844	09/08/20	21619	JAMES STEWART	RFND BAL-CLOSED A/C	PV	171621	001	00101	159.42	036147

Batch Number - 281950

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Itm	Key Co	Amount	Invoice Number
				Payment Amount					159.42	
85845	09/08/20	16034	TASC	FSA CARD/ADM FEES	PV	171598	001	00701	913.95	IN1825413
				Payment Amount					913.95	
85846	09/08/20	21511	URBAN WATER GROUP, INC.	WEB PAGE SRV 7/6~8/20	PV	171639	001	00701	3,464.00	1392
				Payment Amount					3,464.00	
85847	09/08/20	2780	VALLEY NEWS GROUP	LEGAL AD-TAPIA WRF	PV	171602	001	00701	320.00	8-6,13
				LGLAD-SDDL PEAK/CORD	PV	171603	001	00701	320.00	8-6,13
				Payment Amount					640.00	
85848	09/08/20	21620	VENTURA DIRECTIONAL DRILL	RFND BAL-CLOSED A/C	PV	171622	001	00101	905.14	083384
				Payment Amount					905.14	
85849	09/08/20	19685	W. LITTEN INC.	SPRYFLD 8/17~8/21	PV	171643	001	00701	4,459.53	20041
				SPRYFLD 8/24~8/28	PV	171644	001	00701	4,889.45	20042
				Payment Amount					9,348.98	
85850	09/08/20	3025	WATER & SANITATION SRV./VENTURA COUNTY	PCH WTR 7/14~8/18	PV	171679	001	00101	27,884.63	2038528
				Payment Amount					27,884.63	
85851	09/08/20	18914	WECK LABORATORIES, INC.	LAB SRVS-PWP	PV	171613	001	00751	5,407.95	W0H1187-LV
				Payment Amount					5,407.95	
				Total Amount of Payments Written					196,253.17	
				Total Number of Payments Written			47			

LAS VIRGENES MUNICIPAL WATER DISTRICT

4232 Las Virgenes Road, Calabasas CA 91302

MINUTES
REGULAR MEETING

9:00 AM September 1, 2020

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance to the Flag was led by Joanne Bodenhamer.

1. CALL TO ORDER AND ROLL CALL

The meeting was called to order at **9:00 a.m.** by Board President Lewitt via teleconference in the Board Room at Las Virgenes Municipal Water District headquarters at 4232 Las Virgenes Road, Calabasas, CA 91302. The meeting was conducted via teleconference pursuant to the provisions of the Governor's Executive Order, N-29-20, which suspended certain requirements of the Ralph M. Brown Act to support social distancing guidelines associated with response to the coronavirus (COVID-19) outbreak. Josie Guzman, Clerk of the Board, conducted the roll call.

Present:	Directors Charles Caspary, Jay Lewitt, Lynda Lo-Hill, Len Polan (connected to the teleconference at 9:04 a.m.), and Lee Renger
Absent:	None
Staff Present:	David Pedersen, General Manager
	Joe McDermott, Director of Engineering and External Affairs
	Don Patterson, Director of Finance and Administration
	John Zhao, Director of Facilities and Operations
	Josie Guzman, Clerk of the Board
	Keith Lemieux, District Counsel

2. APPROVAL OF AGENDA

Director Lo-Hill moved to approve the agenda. Motion seconded by Director Renger.

Motion carried by the following roll call vote:

AYES: Caspary, Lewitt, Lo-Hill, Renger
NOES: None
ABSTAIN: None
ABSENT: Polan

3. PUBLIC COMMENTS

General Manager David Pedersen introduced Debbie Rosales, who was recently hired as a Financial Analyst II. Ms. Rosales stated that she was looking forward to working for the District.

4. CONSENT CALENDAR

A List of Demands: September 1, 2020: Receive and file

B Minutes Regular Meeting of August 18, 2020: Approve

C Monthly Cash and Investment Report: July 2020

Receive and file the Monthly Cash and Investment Report for July 2020.

Director Caspary moved to approve the Consent Calendar. Motion seconded by Director Renger. Motion carried by following roll call vote:

AYES: Caspary, Lewitt, Lo-Hill, Renger
NOES: None
ABSTAIN: None
ABSENT: Polan

Director Polan connected to the teleconference at 9:04 a.m.

5. ILLUSTRATIVE AND/OR VERBAL PRESENTATION AGENDA ITEMS

A MWD Representative Report

Glen Peterson, MWD Representative, reported that the MWD Board met on August 18th where they approved several change orders for the Headquarters Building Improvements Project, approved an agreement to conduct an executive search for the MWD General Manager recruitment process, repealed Administrative Code sections regarding wheeling service, and rescinded a resolution regarding fixing and adopting wheeling rates. He noted that MWD General Manager Jeff Kightlinger indicated that he would remain at MWD until a new General Manager was hired. He mentioned that the MWD Board confirmed the induction of new Director Sat Tamaribuchi from the Municipal Water District of Orange County, and honored the memory of former Director and LADWP General Manager Ron Deaton.

B Legislative and Regulatory Updates

Joe McDermott, Director of Engineering and External Affairs, presented the federal legislative update and noted that the Senate would return from recess on September 8th and the House would reconvene on September 14th. He reported that last month the House passed ten appropriations bills for Fiscal Year 2021. He noted that the House Interior and Environment Bill included a provision rescinding and re-appropriating funds for Water Infrastructure Finance and Innovation Act (WIFIA) loans; however, the Appropriations Committee staff gave assurances that this issue would be resolved in conference with the Senate. He stated that although the House approved a majority of its appropriations bills, it was unlikely that a fiscal budget for 2021 would be adopted before the September 30th deadline, and it was likely that Congress would need to pass a continuing resolution to continue funding the government after the September 30th deadline. He also reported that COVID-19 relief aid was currently at an impasse, and it was not certain whether agreement on a relief package would be reached by the end of September. He noted that Representative John Garamendi and Senators John Cornyn and Kyrsten Sinema introduced bills that would make special districts eligible to receive up to five percent of any additional COVID-19 relief funds provided to states, and Senator Kamala Harris agreed in late July to sign on as a co-sponsor to this bill.

Syrus Devers, lobbyist representing Best Best & Krieger LLP, presented the state legislative report. He stated that AB 2178 (Levine), emergency services affecting backup emergency generators and designating Public Safety Power Shutoffs (PSPS) as a local emergency, did not move forward and that none of the six similar bills were moving forward. He also reported that AB 2560 (Quirk), Water Quality, Notification Levels and Response Levels, Procedures, related to constituents of emerging concern, was passed by the Senate. He noted that AB 3030 (Kalra), California Land and Ocean Conservation Goals, was held on suspense and was not moving forward. He also provided an update regarding SB 1386 (Moorlach), Local Government: Assessments, Fees, and Charges: Water Hydrants, related to special districts' liability for the cost of fire hydrants, and noted that this bill had passed and was awaiting Governor Gavin Newsom's signature. He reported that a response was received regarding South Coast Air Quality Management District's (SCAQMD) proposal to change its rules dealing with exceeding runtime limits during a Public Safety Power Shutoff (PSPS) event and addressing testing and maintenance. He stated that based on SCAQMD's response, the California Municipal Utilities Association (CMUA) and BBK would move forward with negotiations or pursue legislation in the upcoming extraordinary legislative session. He also provided an update regarding AB 1659 (Bloom), Large Electrical Corporations: Wildfire Mitigation: Securitization, regarding a wildfire bond and stated that it was unlikely that this bill would move forward.

Director Caspary noted that AB 1659 would have extended a one-half cent per kilowatt-hour charge on California electrical bills through 2051 and include several sunset dates. He inquired whether there was an update from the State Water Board regarding the four natural gas powered generation facilities that might receive an extension on their operating permits in California. Mr. Devers responded that he was not aware; however, he stated that he would follow-up.

C Water Supply Conditions Update

No additional report was provided.

D Update on Woolsey Fire Recovery Efforts

Joe McDermott, Director of Engineering and External Affairs, provided an update regarding repairs to the following facilities damaged during the Woolsey Fire: Mulholland Highway Bridge pipeline; Rancho Las Virgenes Composting Facility and amendment building, exterior, roof, electrical, equipment related to the amendment conveyance process, biofilter, and miscellaneous onsite appurtenances including irrigation and landscaping; Westlake Filtration Plant including exterior building, arcade, roof, chemical pump room, mechanical and electrical equipment, irrigation, and landscaping; remote sites throughout the District including tank sites, pump stations, irrigation, and Headquarters; and JPA facilities including recycled water tanks, Reservoir No. 2, and irrigation systems. He reported that several repairs were made at the Rancho Las Virgenes Composting Facility and additional repairs were pending. He also reported that repairs were made to the Westlake Filtration Plant irrigation and landscaping. He noted that repair work for the Westlake Filtration Plant arcade and chemical equipment would go out to bid within the next few months. He also noted that the Mulholland Highway Bridge Pipeline Replacement Project would be completed once the County of Los Angeles completed construction of the bridge. He stated that repairs to remote facilities might not be covered by the District's insurance carrier or the California Office of Emergency Services (CalOES); however, a claim had been submitted to Southern California Edison (SCE).

Don Patterson, Director of Finance and Administration, provided an update regarding damage reimbursements received from the District's insurance carrier, CalOES, and the Federal Emergency Management Agency (FEMA), totaling $4,593,231, as described in the staff report. He noted that a claim filed with SCE was pending for damages not covered by insurance.

6. TREASURER

Director Lo-Hill stated that the Treasurer's report was in order.

7. BOARD OF DIRECTORS

A Response to Coronavirus (COVID-19) Pandemic: Continuation of Emergency

Approve the continuation of an emergency declaration for response to the coronavirus (COVID-19) pandemic.

Ursula Bosson, Customer Service Manager, presented the report. She responded to a question regarding tracking the percentage of total number of defaulted accounts for high water users versus non-high water users by stating that she was not tracking high water user accounts versus non-high water user accounts; however, she would do so. She also

responded to a question posed by Director Polan regarding which District phone number appeared on the customer billing by bringing up a sample bill and noting that the phone number displayed was (818) 251-2200. General Manager David Pedersen stated that the District's main phone number (818) 251-2100 was not included in the customer billing as this number was the main switchboard and customers should call (818) 251-2200 for customer service related inquiries.

Director Polan stated that he was aware of a customer who called the District, but was unable to connect to a staff member. Ms. Bosson asked Director Polan to provide her the customer's contact information so that she could follow-up.

General Manager David Pedersen reported that one District employee tested positive for COVID-19, and three additional employees were identified through the contact tracing process as having had contact with the employee who had tested positive. He noted that the employees were currently quarantined to keep the virus from spreading.

Director Renger moved to approve Item 7A. Motion seconded by Director Polan. Motion carried unanimously.

8. FACILITIES AND OPERATIONS

A Fiscal Year 2020-21 Mobile Crane Purchase: Award

Authorize the General Manager to issue a purchase order to Customer One Truck Source, in the amount of $190,776, for the purchase of a 2020 Freightliner M2 19-Ton mobile crane

John Zhao, Director of Facilities and Operations, presented the report.

Director Polan moved to approve Item 8A. Motion seconded by Director Renger.

Director Caspary asked that staff be cautious when operating the new crane because it appeared it would be top-heavy when used off-road.

Motion carried unanimously.

9. ENGINEERING AND EXTERNAL AFFAIRS

A 2020 Las Virgenes (Westlake) Reservoir Dam Settlement Report

Receive and file the 2020 Las Virgenes Reservoir Dam Settlement Report.

General Manager David Pedersen provided introductory remarks.

Mercedes Acevedo, Assistant Engineer, presented the report.

Director Polan moved to approve Item 9A. Motion seconded by Director Caspary.

John Zhao, Director of Facilities and Operations, responded to a question regarding the timeline to repair the cracks in the spillway by stating that the repairs would be completed by the end of the year.

Director Caspary asked that the cracks in the spillway be repaired before winter, and requested that staff provide an update at a future meeting.

Motion carried unanimously.

10. NON-ACTION ITEMS

A Organization Reports

Director Caspary reported that the Association of California Water Agencies (ACWA) State Legislative Committee met on August 28th. He noted that the Committee discussed AB 6 (Reyes), Attorney General Duties, which would authorize the Attorney General to sue for penalties of up to $2,500 per day against anyone impairing water quality in the State instead of filing a complaint with the Department of Fish and Wildlife. He also reported that the Santa Monica Bay Restoration Commission Governing Board met on August 27th, where they discussed establishing a subcommittee to consider various topics affecting the watershed. He noted that the subcommittee would be subject to the Bagley-Keene Open Meeting Act and financial reporting. He also noted that 30 people addressed the Governing Board during the meeting. He responded to a question regarding public comments related to the Ballona Wetlands Restoration Project by stating that the California Department of Fish and Wildlife received over 8,000 comments regarding the draft environmental impact report. He stated that a final environmental impact report was expected to be filed by the end of the year. He noted that the plan was to reestablish a saltwater estuary that was present prior to the excavation of Marina del Rey. He stated that a fresh water ecosystem tended to develop and wildlife had found a niche on vacant property. He noted that this has been the most contentious issue for the Santa Monica Bay Restoration Commission. He stated that the grading plan might have affected the maximum flood flows of Ballona Creek, which drains to the ocean as a flood control facility.

B Director's Reports on Outside Meetings

None.

C General Manager Reports

(1) General Business

General Manager David Pedersen reported that staff was preparing for the Pure Water Demonstration Facility ribbon-cutting ceremony scheduled on September 11th. He noted that a copy of the preliminary program would be sent to the Board. He stated that the ceremony would be a quasi-virtual/web-based event with some live participation. He noted that Senator Henry Stern would serve as the keynote speaker, and the event would also include participation by local Mayors and recorded statements from Congresswoman

Julie Brownley and Congressman Ted Lieu. He also noted that invitations to the virtual event would be sent to as many people as possible, and he encouraged the Board to send invitations as well. He stated that tasting of the treated water from the Pure Water Demonstration Facility and a quick tour were being arranged for the Las Virgenes – Triunfo Joint Powers Authority Board of Directors. He also reported that the Westlake Filtration Plant would begin to operate beginning September 2nd, and customers were notified that they might notice changes to the taste and smell of the water. He also reported that compost was being produced at the Rancho Las Virgenes Composting Facility and 35 people picked up free compost on August 29th. He reminded the Board that the Calleguas – Las Virgenes Public Financing Authority would meet on September 2nd at 4:30 p.m. to consider adopting a resolution to revise the conflict of interest code.

Board President Lewitt reminded the Board and staff to promote the Las Virgenes-Triunfo Pure Water Demonstration Facility and to invite as many people as possible to the virtual ribbon-cutting ceremony or view the event on the District's website. He acknowledged staff on their efforts.

(2) Follow-Up Items

General Manager David Pedersen noted that the final version of the Regional Brine Management Study would be presented at the JPA Board meeting on September 8th. He also noted that revisions to the Weather-Based Irrigation Controller Program would be brought back at a future Board meeting, and discussions regarding a mascot for the Pure Water Project Las Virgenes-Triunfo and a discussion regarding water quality issues associated with Las Virgenes Reservoir, and its role for the Pure Water Project Las Virgenes-Triunfo, would be brought back at a future JPA Board meeting.

D Directors' Comments

None.

11. FUTURE AGENDA ITE.MS

None.

12. PUBLIC COMMENTS

None.

13. CLOSED SESSION

None.

14. OPEN SESSION AND ADJOURNMENT

Seeing no further business to come before the Board, the meeting was duly adjourned at **10:25 a.m.**

Jay Lewitt, President
Board of Directors
Las Virgenes Municipal Water District

ATTEST:

Charles Caspary, Secretary
Board of Directors
Las Virgenes Municipal Water District

(SEAL)

September 1, 2020

To: Payroll

From: David W. Pedersen
General Manager

DocuSigned by:
David W. Pedersen
12C6BE2E4EC44E2...

RE: Per Diem Request – August 2020

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

On April 25, 2017, the Board adopted Resolution No. 2513, amending the per diem rate to $220.

	Director	No. of Meetings	Rate	Total
8014	Charles Caspary	5	$220.00	$1,100.00
19447	Jay Lewitt	6	$220.00	$1,320.00
21169	Lynda Lo-Hill	8	$220.00	$1,760.00
18856	Leonard Polan	5	$220.00	$1,100.00
14702	Lee Renger	5	$220.00	$1,100.00

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

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

LAS VIRGENES MUNICIPAL WATER DISTRICT - PER DIEM REPORT

To: Clerk of the Board

Director's Name: Charles Caspary

Month of: August 2020

Division: Division 1

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

Date(s)	# of Days Claimed			Reimbursible Expenses[2] (Y/N)	Check One		Event Title
	Event	Travel [1]	Total		MWD	LVMWD	
8/3/2020	1		1	N		X	LV-TWSD JPA REGULAR BOARD MTG.
8/4/2020	1		1	N		X	LVMWD - REGULAR BOARD MEETING
8/18/2020	1		1	N		X	LVMWD - REGULAR BOARD MEETING
8/20/2020	1		1	N		X	SMBRC - GOVERNING BOARD MEETING
8/28/2020	1		1	N		X	ACWA - STATE LEGISLATIVE COMMITTEE
		TOTAL	5				

Date Submitted: August 31, 2020

Director Signature: Charles Caspary - (submitted via email)

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

LAS VIRGENES MUNICIPAL WATER DISTRICT - PER DIEM REPORT

To: Josie Guzman

Director's Name: Jay Lewitt

Month of: August

Division: 5

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

Date(s)	# of Days Claimed			Reimbursible Expenses[2] (Y/N)	Check One		Event Title
	Event	Travel [1]	Total		MWD	LVMWD	
8.3.20	1		1			x	JPA Board Meeting
8.4.20	1		1			x	LVMWD board meeting
8.12.20	1		1			x	CASA Virtual Confence
8.13.20	1		1			x	CASA Virtual Confence
8.17.20	1		1			x	Met Board
8.18.20	1		1			x	LVMWD board meeting
		TOTAL	6				

Date Submitted: 8.28.20

JL

Director Signature:

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

LAS VIRGENES MUNICIPAL WATER DISTRICT - PER DIEM REPORT

To: Josie Guzman, Clerk of the Board

Director's Name: Lynda Lo-Hill

Month of: August, 2020

Division: 2

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

Date(s)	# of Days Claimed			Reimbursible Expenses[2] (Y/N)	Check One		Event Title
	Event	Travel [1]	Total		MWD	LVMWD	
8/3/2020	1		1			X	JPA Board Meeting
8/4/2020	1		1			X	LVMWD Board Meeting
8/6/2020	0		0			X	Southern Cal Water Coalition (Storm Water Matters)
8/6/2020	1		1			X	Water Education Foundation Virtual Headwater tour
8/12/2020	1		1	Y		X	CASA Conference
8/13/2020	1		1			X	CASA Conference
8/17/2020	1		1		X		MWD Committee Meetings F&I, E&O,WP&S, IRP
8/18/2020	0		0		X		MWD Board Meeting
8/18/2020	1		1			X	LVMWD Board Meeting
8/25/2020	1		1			X	ACWA Energy Committee meeting
		TOTAL	8				

Date Submitted: August 27, 2020

Director Signature: *Lynda Lo-Hill submitted by email*

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

LAS VIRGENES MUNICIPAL WATER DISTRICT - PER DIEM REPORT

To: Josie Guzman, Clerk of the Board

Director's ame: Leonard Polan

Month of: Aug 20

Division: #4

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

Date(s)	# of Days Claimed			Reimbursible Expenses[2] (Y/N)	Check One		Event Title
	Event	Travel [1]	Total		MWD	LVMWD	
8/3/20	1	----	1	----	----	Y	JPA Mtg
8/4/20	1	----	1	----	----	Y	LVMWD Board Mtg
8/12/20	1	----	1	----	----	Y	CASA Zoom conference
8/13/20	1	----	1	----	----	Y	CASA Zoom conference
8/18/20	1	----	1	----	----	Y	LVMWD Board Mtg
		TOTAL	5				

Date Submitted: 8/31/20

Director Signature: *Leonard E. Polan*

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

LAS VIRGENES MUNICIPAL WATER DISTRICT - PER DIEM REPORT

To: Josie Guzman, Clerk of the Board

Director's Name: LEE RENGER

Month of: August, 2020

Division: 3

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

Date(s)	# of Days Claimed			Reimbursible Expenses? (Y/N)	Check One		Event Title
	Event	Travel [1]	Total		MWD	LVMWD	
8/3/2020	1		1	N		1	JPA BOARD MEETING
8/4/2020	1		1	N		1	LVMWD BOARD MEETING
8/6/2020	1		1	N		1	STORMWATER WEBINAR Southern California Water Coalition
8/12/2020	1		1	N		1	Leadership and Transparency in the Water Sector: ACWA WEBINAR A Look at GHG Metrics
8/18/2020	1		1	N		1	LVMWD BOARD MEETING
		TOTAL	5				

Date Submitted: 25 AUGUST, 2020

Director Signature: Lee Renger

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

17238 OJ

INVOICE

Glen Peterson, Director

Metropolitan Water District of Southern California

2936 Triunfo Canyon Rd

Agoura, CA. 91301

email: glenpsop@icloud.com

DATE: 09/01/20

INVOICE # 21

FOR: *Director fees*

Bill To:

Las Virgenes Municipal Water District

4232 Las Virgenes Rd

Calabasas, CA. 91302

attn: Josie Guzman, Clerk of the Board

818-251-2100

DocuSigned by:
David W. Pedersen
12C6BE2E4EC44E2...

9/3/2020

Date	Description	fee
8/4/2020	Real Property planning meeting	$220.00
8/11/2020	Colorado River Board Briefing	$220.00
8/12/2020	CRBCA Meeting and ACWA webinar	$220.00
8/14/2020	Northern Caucus and BIASC conference zoom	$220.00
8/17/2020	MWD Committees	$220.00
8/18/2020	MWD Board meeting and committies	$220.00
	TOTAL	$1,320.00

Make Check payable to Glen Peterson

Thank you for the opportunity to serve

September 15, 2020 LVMWD Regular Board Meeting

TO: Board of Directors

FROM: Engineering and External Affairs

Subject : Westlake Filtration Plant Woolsey Fire Repairs: Approval of Scope Change

SUMMARY:

On March 26, 2019, the Board accepted a proposal, in the amount of $121,380, from M6 Consulting, Inc. (M6), for the Woolsey Fire Facility Repair Project Nos. 1 and 2; and, upon approval by the JPA Board on March 28, 2019, the Administering Agent/General Manager was authorized to execute a professional services agreement for engineering design and support services during construction. Woolsey Fire Facility Repair Project No.1 is for the Rancho Las Virgenes Composting Facility, and Project No. 2 is for the Westlake Filtration Plant. Additional electrical design efforts are needed for the repair work at the Westlake Filtration Plant. As a result, staff recommends approval of Scope Change No. 2, in the amount of $9,175, for M6 to complete the electrical design work for the project.

RECOMMENDATION(S):

Authorize the General Manager to approve proposed Scope Change No. 2, in the amount of $9,175, for M6 Consulting, Inc., to provide additional electrical design work for repairs at the Westlake Filtration Plant.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

Sufficient funding is available in the adopted Fiscal Year 2020-21 Budget. No additional appropriation is required. Expenses for the work at the Rancho Las Virgenes Composting Facility, a JPA-owned facility, and the Westlake Filtration Plant, an LVMWD-only

facility, are tracked and allocated separately. The costs of the additional electrical design work are expected to be reimbursed by CalOES and/or FEMA.

DISCUSSION:

On March 28, 2019, the JPA Board authorized the General Manager to execute a professional services agreement with M6 Consulting, Inc. (M6), in the amount of $121,380, to provide site assessment, design, construction management and inspection services for Woolsey Fire Facility Repairs Project Nos. 1 (Rancho Las Virgenes Composting Facility) and 2 (Westlake Filtration Plant).

The preliminary design report for the repairs at the Westlake Filtration Plant outlined a scope of work for the replacement of interior and exterior items damaged by the Woolsey Fire. Exterior damages were identified for the arcade, pump room, architectural façade, landscaping and roof assembly. Interior damages were identified for the laboratory, electrical conductors, conduits and piping. As detailed planning and design progressed, it became apparent that additional work that was not identified in the original scope would be required. The changes in scope are described in more detail below.

Scope Change No. 1 ($10,695):

This scope change addressed two items. The first item involved additional planning, structural design and meeting attendance for consultation with the Planning Division staff at the City of Westlake Village on roof screening for the exposed air gap pipe on roof of the Westlake Filtration Plant. The second item was for additional landscape design efforts to combine previous screening plans with new restoration work due to Woolsey Fire damage surrounding the filtration plant and Torchwood Tank. Scope Change No. 1 was administratively approved by the General Manager on December 12, 2019.

Scope Change No. 2 ($9,175):

The chemical pumps that were damaged in the Woolsey Fire operated on a 480-volt transformer. The new pumps to be installed as part of the facility repairs are modern, smaller and more energy efficient than those that were damaged. As a result, the new chemical pumps operate on a standard 120-volt system. There is an overall cost-savings associated with the new pumps because they are less expensive, more efficient and simpler to maintain. Approval of Scope Change No. 2 is needed to authorize M6 to complete the required changes to the electrical system to accommodate the new pumps at the Westlake Filtration Plant. Changes to three plan sheets, corresponding to an additional 70 hours of work, are required as further described in the attached work request.

The amount of Scope Change No. 2, cumulatively exceeds 10% of the original contract amount; therefore, Board approval is required for the action.

GOALS:

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

Prepared by: Veronica Hurtado, Assistant Engineer

ATTACHMENTS:

Proposed Scope Change No. 2

4165 E. Thousand Oaks Blvd, Suite 355
Westlake Village, California 91362
805 379 1015 Phone

August 27, 2020

Veronica Hurtado
Assistant Engineer
Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, California 91302

Subject: **Woolsey Fire Facility Repairs**
Westlake Filter Plant- Additional Plan Documents
Additional Work Request (AWR) #2

Dear Veronica,

Per our conversations regarding the additional work related to the electrical distribution system for the Pump Room at the Westlake Filter Plant, please find enclosed our Additional Work Request #2. These efforts are summarized below, with hourly efforts in Exhibit C, with associated cost summary included in Exhibit B.

Project 2: Westlake Filter Plant: Electrical Design Services (Pump Room)

Task 103. Electrical Plan Preparation: This task will involve the development of plans and details to address the requested scope related to electrical system modification in the Pump Room, which includes new panelboard, transformer, panel schedules and associated details. Additional plan sheets and an associated effort of 70 hours of design and drafting are allocated to this portion of the Task.

Enclosed we have provided our proposed Scope of Services, Exhibit "A", and Compensation, Exhibit "B". Should you have any questions or comments, please feel free to contact us at (805) 379-1015.

Sincerely,
m6 Consulting, Inc.

Robert Woodward, PE
Principal

Exhibit "A"
Client Initials _____

4165 E. Thousand Oaks Blvd, Suite 355
Westlake Village, California 91362
805 379 1015 Phone

EXHIBIT "B"
COMPENSATION
Proposal for Woolsey Fire Facility Repairs
Westlake Filter Plant- Additional Plan Documents
Additional Work Request (AWR) #2

Client agrees to compensate Consultant for such services as follows:

On a Not-To-Exceed/Hourly Basis, the Tasks outlined in Exhibit "A" above. For services provided, staff will be billed based on their functional classification and corresponding hourly rate.

Project 2: Westlake Filter Plant: Electrical Design Services (Pump Room)

TASK	DESCRIPTION	FEE
103	**Electrical Plan Preparation**	$9,175.00
	Project 2 AWR #2 Total:	**$9,175.00**

EXHIBIT C: PROPOSED HOURS AND FEE SCHEDULE

Project: LVMWD Woolsey Fire Repairs - Project 2 - Westlake Filter Plant - AWR#2 Additional Plan Documents
Prepared By: Bob Woodward
Date: August 27, 2020

							m6											
	Position						**Project Manager**	**Project Eng I**	**Design Eng.**	**Designer I**	**Designer II**	**Insp. II**	**SME**	**Admin. Clerical**	**Grant Support**		**Total Hours**	**Total Fee**
	Rate						**$160**	**$145**	**$120**	**$110**	**$115**	**$95**	**$120**	**$60**	**$100**			($)
Task 103	**Design Plan, Specification and Estimate (PS&E) Preparation**						15	15			40						70	$9,175
	Sub Total Hours						15	15	0	0	40	0	0	0	0	0	**70**	
	Total						$2,400	$2,175	$0	$0	$4,600	$0	$0	$0	$0	$0		**$9,175**

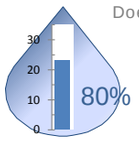
Note:

Water Supply Conditions Report

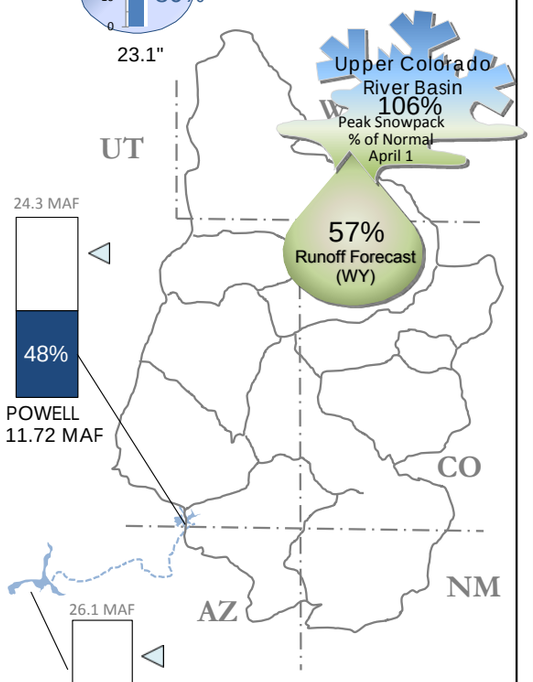
As of: 08/31/2020

2020 Colorado River

1,103,000 AF
88% of full CRA
Does not include storage withdrawals



23.1"



Peak Snowpack % of Normal April 1

Runoff Forecast WY

Turn page for more CRA Data

Flip Over for SWP Data

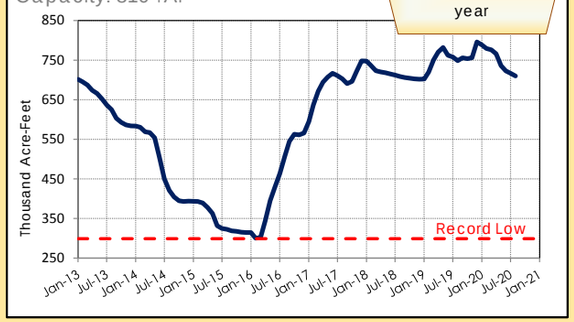
Highlights

- Sacramento River Runoff forecast is 52% of normal
- Statewide snowpack peaked at 64% of normal
- Lake Powell inflow forecast is 57% of normal
- Snowpack in the Upper Colorado River Basin peaked at 106% of normal

Diamond Valley Lake Storage

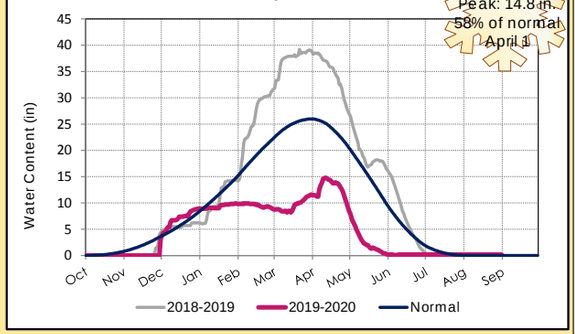
Capacity: 810 TAF

39 TAF less in storage than this time last year

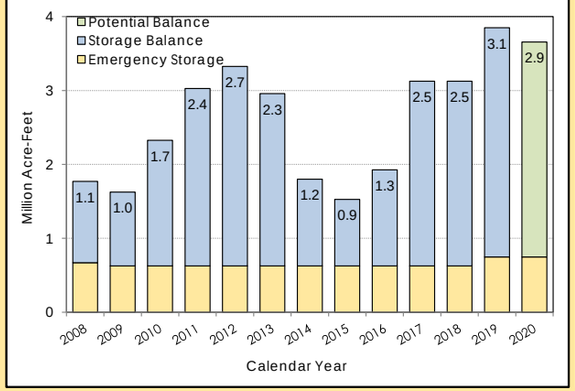


Southern Sierra Snowpack

Peak: 14.8 in
58% of normal
April 1



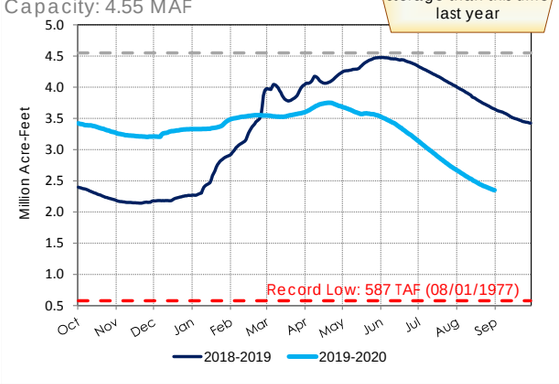
MWD Storage Reserve Levels



Lake Shasta Reservoir Storage

Capacity: 4.55 MAF

1.30 MAF less in storage than this time last year

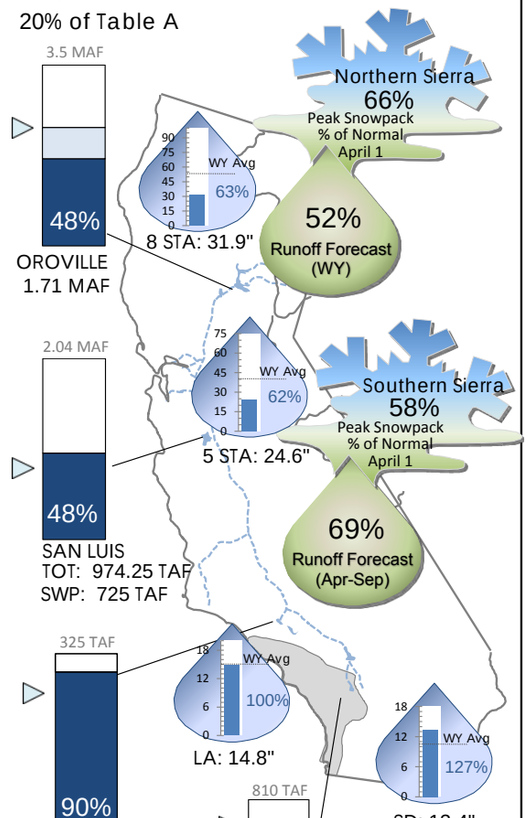


Water Supply Conditions Report

As of: 08/31/2020

2020 SWP Allocation

382,300 AF
20% of Table A



WY Avg
% Normal WY to Date
Rainfall to Date (in)

Capacity
Average EOM
Current Storage (% Capacity)

Flip Over for CRA Data

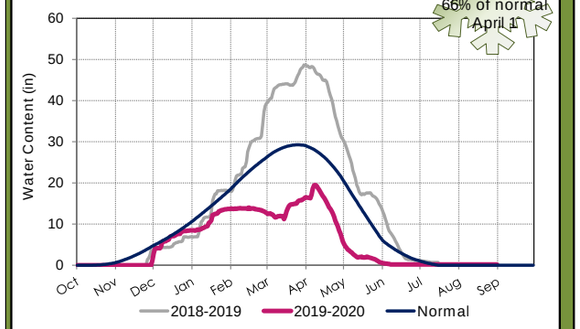
Turn page for more SWP Data

State Water Project Resources

As of: 08/31/2020

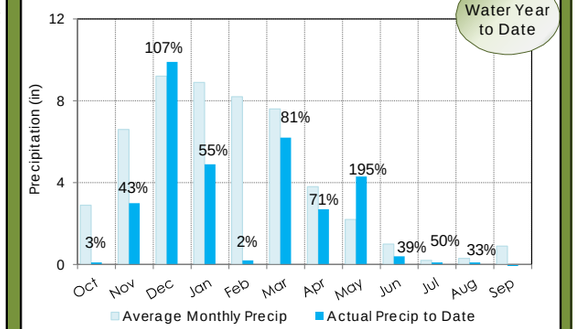
Northern Sierra Snowpack

Peak: 19.5 in.
66% of normal
April 1



8 Station Index Precip

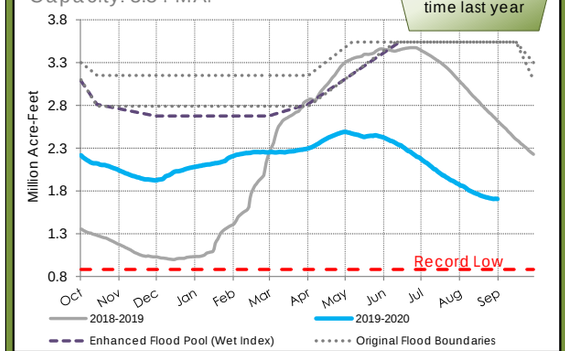
31.9 in.
Water Year
to Date



Oroville Reservoir Storage

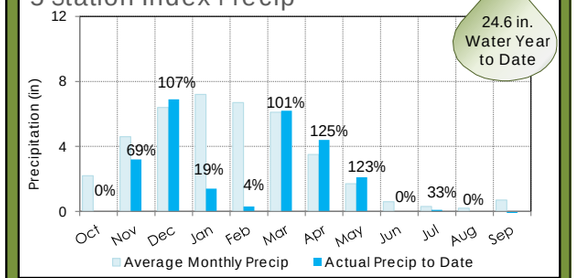
Capacity: 3.54 MAF

916 TAF less in storage than this time last year



5 Station Index Precip

24.6 in.
Water Year
to Date



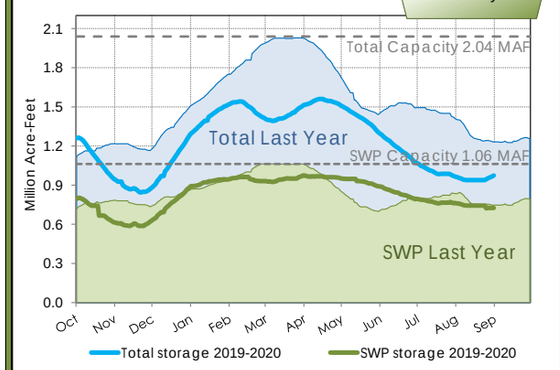
Other SWP Contract Supplies for 2020 (AF)

Carryover	330,766
Transfer Supplies	6,000 (est.)

San Luis Reservoir Storage

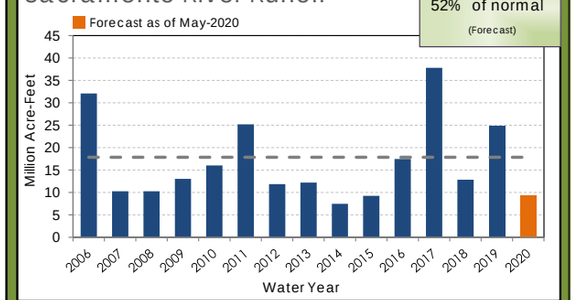
Capacity: 2.04 MAF

21 TAF less in SWP storage than this time last year



Sacramento River Runoff

WY 2020
52% of normal
(Forecast)

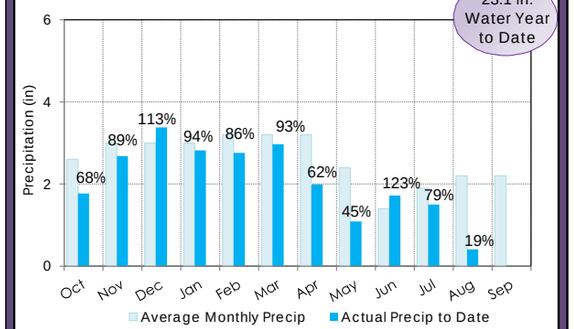


Colorado River Resources

As of: 08/31/2020

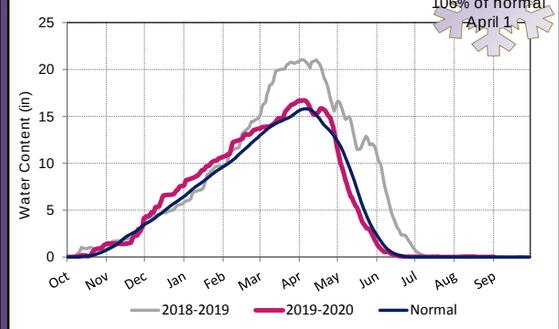
Upper Colorado Basin Precip

23.1 in.
Water Year
to Date

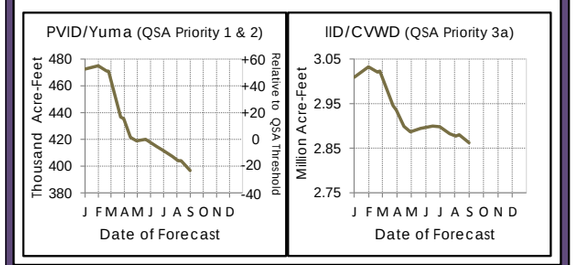


Upper Colorado Basin Snowpack

Peak: 16.7 in.
106% of normal
April 1



2019 Colorado River Ag Use



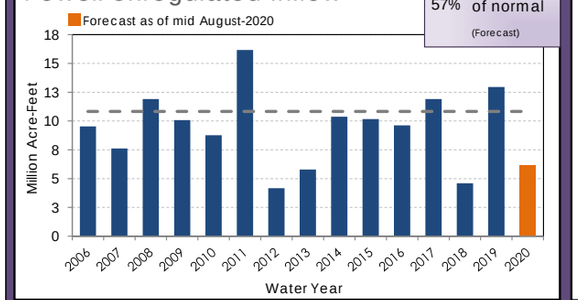
Lake Mead Shortage/Surplus Outlook

	2020	2021	2022	2023	2024
Shortage	0%	0%	9%	31%	37%
Surplus	0%	0%	<1%	6%	10%

Likelihood based on results from the April 2020 MTOM/CRSS model run.
Includes DCP Contributions.

Powell Unregulated Inflow

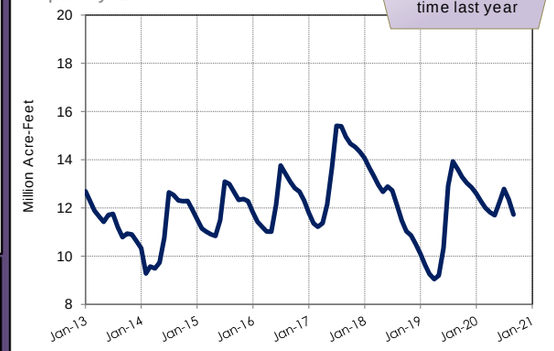
WY 2020
57% of normal
(Forecast)



Lake Powell Storage

Capacity: 24.3 MAF

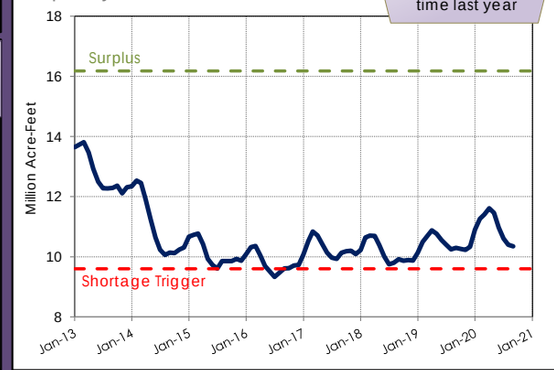
1.88 MAF less in storage than this time last year



Lake Mead Storage

Capacity: 26.1 MAF

45 TAF more in storage than this time last year



September 15, 2020 LVMWD Regular Board Meeting

TO: Board of Directors

FROM: General Manager

Subject : Response to Coronavirus (COVID-19) Pandemic: Continuation of Emergency

SUMMARY:

On March 24, 2020, the Board adopted Resolution No. 2572, declaring a state of emergency for the District's service area due to the coronavirus (COVID-19) pandemic and authorizing actions to support the response and recovery effort. On April 21, 2020, the Board adopted Resolution No. 2574, amending and reenacting the declaration of a local state of emergency and authorizing interest-free flexible payments plans for up to 24 months. On May 19, 2020, the Board adopted Resolution No. 2576, amending and reenacting the declaration of a local state of emergency and authorizing a waiver of service initiation fees for commercial customers who temporarily closed their accounts due to hardships associated with COVID-19. Subsequently, on June 16, 2020, the Board adopted Resolution No. 2578, amending and reenacting the declaration of a local state of emergency and authorizing a partial credit to commercial hotel customers for fixed sewer charges for the months of April and May 2020 with a maximum 50 percent reduction of the charges.

Section 2-6.402 of the Las Virgenes Municipal Water District Code requires that once the Board has declared an emergency, it must determine by a 4/5's vote at each subsequent regular Board meeting whether to continue or terminate the authorization for emergency. Staff recommends that the emergency declaration be continued.

RECOMMENDATION(S):

Approve the continuation of an emergency declaration for response to the coronavirus (COVID-19) pandemic.

FISCAL IMPACT:

No

ITEM BUDGETED:

No

DISCUSSION:

Resolution Nos. 2572, 2574, 2576, and 2578 authorized and directed the General Manager to temporarily grant relief to District customers, as follows:

- Avoid shutting off water service for non-payment;
- Discontinue the issuance of door tags and associated fees for non-payment;
- Waive late charges for past due water and wastewater bills; and
- Authorize interest-free flexible payment plans for up to 24 months.
- Authorize waiving service initiation fees for commercial customers who temporarily closed their accounts due to hardship associated with COVID-19
- Authorize a partial credit to commercial hotel customers for fixed sewer charges for the months of April and May 2020 with a maximum 50 percent reduction of the charges.

At the Board meeting, staff will provide a comprehensive update on the District's response to the coronavirus (COVID-19) pandemic, including the following items:

- Response actions taken to-date;
- Effectiveness of the above-described actions;
- Feedback received from customers; and
- Billing and financial metrics.

GOALS:

Provide Safe and Quality Water with Reliable Services

Prepared by: David W. Pedersen, General Manager

September 15, 2020 LVMWD Regular Board Meeting

TO: Board of Directors

FROM: Engineering and External Affairs

Subject : Calleguas-Las Virgenes Interconnection Project: Construction Award

SUMMARY:

For the Calleguas-Las Virgenes Interconnection Project, the District is responsible for construction of the southern pipeline segment connecting the District's water system along Lindero Canyon Road near Thousand Oaks Boulevard to Calleguas Municipal Water District's system at the Los Angeles/Ventura County boundary. The District has received bids for the construction of the pipeline and associated reimbursable work requested by the City of Westlake Village, which includes full street repaving and installation of a fiber optic conduit. The District also received proposals for construction management and inspection services to support installation of the new pipeline. Lastly, staff and District Legal Counsel have drafted a Memorandum of Agreement with the City of Westlake Village for reimbursement street repaving and fiber optic conduit work.

Staff recommends award of a construction to Sully-Miller Contracting Company, in the amount of $4,683,270.55; award of a professional services agreement to Cannon Corp Engineering Consultants, in the amount of $265,990; appropriation of an additional $500,000 in funding; and authorization for the General Manager to execute a Memorandum of Agreement with the City of Westlake Village for reimbursement of City-requested work for the Calleguas-Las Virgenes Interconnection Project.

RECOMMENDATION(S):

Accept the request from Toro Enterprises, Inc., to withdraw its bid due to a clerical error; authorize the General Manager to execute a construction contract with Sully-Miller Contracting Company, in the amount of $4,683,270.55; accept the proposal from Cannon Corp Engineering Consultants and authorize the General Manager to execute a professional services agreement, in the amount of $265,990, for construction management and inspection services; appropriate an additional $500,000 in funding; and authorize the General Manager to execute a Memorandum of Agreement with the City of Westlake Village for reimbursement of street repaving and fiber optic work for the Calleguas-Las Virgenes Interconnection Project.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The total cost of this action is $4,949,260.55, which includes $997,123.55 in reimbursable work performed on behalf of the City of Westlake Village. The cost of the project is also offset by a Proposition 84 Integrated Regional Water Management Planning Grant, in the amount of $1,975,517.45. An additional appropriation, in the amount of $500,000, is requested because the reimbursable work for the City of Westlake Village was not included in the original project budget.

DISCUSSION:

Background:

The District and Calleguas Municipal Water District (CMWD) own and operate potable water systems that are dependent on imported water supply. Both agencies are subject to scheduled and unscheduled interruptions of water deliveries that can negatively impact their ability to deliver potable water to their respective customers. On March 10, 2015, the District and CMWD entered into an Interconnection Agreement to improve the future reliability of their respective water systems. The proposed interconnection is a cost-effective way to deliver water between the agencies if one were to experience a complete or partial supply interruption that did not significantly affect the other agency. The interconnection would also facilitate filling of Las Virgenes Reservoir during the winter months and expand recycled water service through the construction of new pipeline laterals and service connections.

The District is responsible for the construction of the southern pipeline segment, connecting its system along Lindero Canyon Road near Thousand Oaks Boulevard to a new proposed Pump Station/Pressure Reducing Station (PS/PRS) site at the Los Angeles/Ventura County boundary. This section of pipeline will be installed along the southbound lanes of Lindero Canyon Road within the City of Westlake Village, from the proposed PS/PRS site southerly to Thousand Oaks Boulevard. The pipeline will consist of 4,977 linear feet of 30-inch welded steel pipe.

Environmental Review and Documentation:

The Interconnection Agreement between the District and CMWD specified that CMWD would be the lead agency for environmental documentation pursuant to the requirements of the California Environmental Quality Act (CEQA). The final Environmental Impact Report (FEIR) for the project was completed by CMWD. As lead agency, CMWD filed the FEIR and Notice of Determination with Ventura County and Los Angeles County.

On July 7, 2020, the Board consider the FEIR prepared by CMWD as the lead agency under CEQA; found that changes or alterations had been incorporated to substantially lessen all significant environmental effects as identified in the FEIR; approved the project together with the Mitigation Monitoring and Reporting Program; authorized the General Manager to file a Notice of Determination with the Los Angeles County Registrar-Recorder/County Clerk.

Call for Bids:

The District issued a call for bids for the project on July 9, 2020. Six bids were received on August 12, 2020. The call for bids included five bid schedules: two base bid schedules (one for installation of the pipeline and the second for repaving along the pipeline trench) and three alternative or additive bid schedules for optional work that was requested by the City of Westlake Village (City). The two base bid schedules were used for determination of lowest responsible bidder.

Following is a table summarizing the base bids:

	Toro Enterprises, Inc.	MNR Construction, Inc.	Cedro Construction, Inc.	Colich & Sons, LP	Blois Construction	Sully-Miller Contracting Co
Total Base Bid Schedule Price	$2,547,266	$3,458,350	$3,561,029	$4,297,620	$3,902,948	$3,516,170
Base Paving Bid Schedule 1 Price	$156,391	$238,800	$256,327	$180,900	$230,900	$169,977
TOTAL BASE BID PRICE	$2,703,657	$3,697,150	$3,817,356	$4,478,520	$4,133,848	$3,686,147

Attached is a copy of the full bid tabulation and Engineer's Estimate. The bids were almost all less than the Engineer's Estimate, in the amount of $4,478,000 for the base bid items. Toro Enterprises was determined to be the apparent lowest responsible bidder; however, on August 18, 2020, Toro Enterprises submitted a request to withdraw its bid due to a clerical error. Staff reviewed the request with District Legal Counsel and recommends accepting withdraw of the bid. Sully-Miller would be the next lowest responsible bidder for the project.

The Call for Bids included bid schedules for reimbursable work requested by the City, consisting of installation of a new fiber optic conduit and full street repaving along Lindero Canyon Road. These scope items were included as optional items, and the bid results were discussed with City staff who requested that the District proceed with work for two of the bid schedules: Additive Bid Schedule A and Alternative Bid Schedule 2. Additive Bid Schedule A is for the fiber optic conduit, and Alternative Bid Schedule 2 replaces the Base Paving Bid Schedule 1 (trench only) shown above.

Following is a summary of the final items to comprise the scope of work and corresponding bid prices provided by Sully-Miller:

Description	Cost
BASE BID SCHEDULE TOTAL	$3,516,170.00
ADDITIVE BID SCHEDULE A TOTAL	$283,840.00

ALTERNATIVE PAVING BID	
SCHEDULE 2 TOTAL	$883,260.55
TOTAL BID PRICE	$4,683,270.55
Less Base Bid	($3,686,147.00)
Estimated City Reimbursement Amount	$997,123.55

The estimated cost for the above items from the Engineer's Estimate was $5,216,526. Sully Miller's bid is $533,255.45, or 10.2%, less than the Engineer's Estimate.

Staff recommends acceptance of the bid from Sully-Miller Contracting Company and authorization for the General Manager to execute a construction contract in the amount of $4,683,270.55. The amount includes the base bid schedule for the installation of the 30-inch diameter water pipeline, together with a new recycled water pipeline; full street repaving along Lindero Canyon Road; and installation of fiber optic conduit. The cost of the street repaving and fiber optic conduit installation would be reimbursed by the City of Westlake Village.

Construction Management and Inspection Services:

To assist in the construction of the interconnection pipeline, the District issued a Request for Proposals (RFP) for a professional consultant to perform inspection and construction management services. The attached RFP was issued on July 2, 2020.

The District received six proposals that are summarized by total cost and effective cost per hour below:

Proposer	Total Cost	Total Hours	Average cost per hour
MKN and Associates	$ 246,868	1,522	$ 162.20
CannonCorp Engineering	$ 265,990	1,848	$ 143.93
Lee + RO	$ 214,440	1,596	$ 134.36
MNS Engineers	$ 300,590	1,870	$ 160.74
GK and Associates	$ 257,872	1,704	$ 151.33
Cordoba Corporation	$ 331,550	1,944	$ 170.55

Staff reviewed the proposals considering cost, total number of hours proposed, project approach, previous and local experience, project understanding and company resources. Based on the review, the proposal by Cannon Corp was determined to be the best overall for the project. Cannon Corp completed the design of the interconnection and would leverage their experience with the project for the benefit of a new team specialized in delivering construction management and inspection services. Furthermore, Cannon Corp's proposal provides value to the District through a high total number of hours and low relative cost per hour. Cannon Corp also displayed a strong understanding of the project challenges, such as potential delays in steel procurement, and their approach will help the District minimize schedule delays.

Staff recommends the Board accept the proposal from Cannon Corp Engineering Consultants and authorize the General Manager to execute a professional services agreement, in the amount of $265,990, for construction management and inspection services for the project.

Memorandum of Agreement with City of Westlake Village:

A Memorandum of Agreement has been drafted to establish the terms for reimbursement of costs and to address other legal considerations related to the District completing work on behalf of the City of Westlake Village. It is anticipated that the City reimbursement amount will be approximately $997,123.55, as shown in the table above. City staff reviewed the bid tabulation and pricing by Sully-Miller and have requested that the District proceed with award for the work included as part of Additive Bid Schedule A and Alternative Bid Schedule 2. The request is documented in the attached email correspondence from the City Engineer.

Prior to issuance of the Call for Bids, a draft agreement was developed with City staff and reviewed by both parties. A copy of the draft agreement is attached for reference. City staff intends to submit a final agreement for acceptance and approval by City Council on September 23, 2020. To proceed with the construction of the interconnection expeditiously, staff recommends that the Board authorize the General Manager to execute the Memorandum of Agreement with the City upon acceptance by their City Council. If the agreement were to be rejected by the City Council, the District would issue a deductive change order to Sully-Miller, removing the bid schedules for the City's work and reverting back to the base bid schedules.

GOALS:

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

Compatibility

This interconnection would provide a cost-effective means to deliver water between agencies if one were to experience a complete or partial supply interruption that did not significantly affect the other agency. The interconnection would also facilitate the filling of the Las Virgenes Reservoir during the winter months, if needed, and expand recycled water service through construction of new pipeline laterals and service connections.

Prepared by: Oliver Slosser, P.E., Senior Engineer

ATTACHMENTS:

Bid Tabulation
Letter of Withdrawal from Toro
Engineer's Estimate
RFP Construction Management and Inspection
CannonCorp Proposal
Draft MOA w/City of Westlake Village
Email from City of Westlake Village regarding City Work

Calleguas-Las Virgenes Interconnection Project
Owner: Las Virgenes Municipal Water District

Bid Opening: 8/12/2020

					Toro Enterprises, Inc. 2101 E. Ventura Boulevard Oxnard, CA 93036 805-483-4515 **License No: 710580** **Bidder Status: Valid**		MNR Construction, Inc. 1880 Wright Avenue La Verne, CA 91750 909-592-2760 **License No: 891298** **Bidder Status: Valid**		Cedro Construction, Inc. 120 E. Santa Maria Street Santa Paula, CA 93060 805-525-0599 **License No: 775943** **Bidder Status: Valid**		Colich & Sons, LP 547 W. 140th Street Gardena, CA 90248 310-516-6346 **License No: 783522** **Bidder Status: Valid**		Blois Construction 3201 Sturgis Road Oxnard, CA 93030 805-656-1432 **License No: 256065** **Bidder Status: Valid**		Sully-Miller Contracting Co 135 S. State College Blvd, #400 Brea, CA 92821 714-578-9600 **License No: 747612** **Bidder Status: Valid**	
Calleguas-Las Virgenes Interconnection Project					**Bidder #1**		**#2**		**#3**		**#4**		**#5**		**#6**	
BASE BID SCHEDULE-INSTALLATION OF 30 INCH STEEL PIPELINE																
Item #	***Description***	***Pay Ref***	***Unit of Measure***	***QTY***	***Unit Price***	***Item Total***	***Unit Price***	***Item Total***	***Unit Price***	***Item Total***	***Unit Price***	***Item Total***	***Unit Price***	***Item Total***	***Unit Price***	***Item Total***
1	MOBILIZATION	1.02	LS	1	$60,000.00	$60,000.00	$120,000.00	$120,000.00	$50,673.00	$50,673.00	$150,000.00	$150,000.00	$150,000.00	$150,000.00	$330,500.00	$330,500.00
2	DEMOBILIZATION AT PROJECT COMPLETION	1.03	LS	1	$26,000.00	$26,000.00	$20,000.00	$20,000.00	$7,140.00	$7,140.00	$50,000.00	$50,000.00	$25,000.00	$25,000.00	$30,000.00	$30,000.00
3	BONDS AND INSURANCE	1.04	LS	1	$16,000.00	$16,000.00	$67,000.00	$67,000.00	$60,000.00	$60,000.00	$50,000.00	$50,000.00	$30,000.00	$30,000.00	$16,000.00	$16,000.00
4	TRAFFIC CONTROL	1.05	LS	1	$120,000.00	$120,000.00	$100,000.00	$100,000.00	$194,775.00	$194,775.00	$150,000.00	$150,000.00	$255,000.00	$255,000.00	$372,000.00	$372,000.00
5	TRENCHING, SHEETING, & SHORING SAFETY PROTECTION	1.06	LS	1	$26,900.00	$26,900.00	$80,000.00	$80,000.00	$116,676.00	$116,676.00	$100,000.00	$100,000.00	$66,000.00	$66,000.00	$75,000.00	$75,000.00
6	INSTALLATION OF 30" CMLC STEEL WATER MAIN	1.07	FT	4979	$242.00	$1,204,918.00	$350.00	$1,742,650.00	$378.00	$1,882,062.00	$530.00	$2,638,870.00	$412.00	$2,051,348.00	$350.00	$1,742,650.00
7	CONNECTION TO EXISTING PIPE AT STA 56+88.95	1.08	LS	1	$107,500.00	$107,500.00	$173,000.00	$173,000.00	$109,132.00	$109,132.00	$95,000.00	$95,000.00	$87,000.00	$87,000.00	$130,000.00	$130,000.00
8	CATHODIC PROTECTION	1.09	LS	1	$48,000.00	$48,000.00	$33,000.00	$33,000.00	$39,267.00	$39,267.00	$40,000.00	$40,000.00	$52,000.00	$52,000.00	$40,000.00	$40,000.00
9	AIR VACUUM VALVE & BLOW OFF ASSEMBLIES FOR 30" WATER MAIN	1.10	EA	6	$8,300.00	$49,800.00	$12,700.00	$76,200.00	$15,374.00	$92,244.00	$9,000.00	$54,000.00	$9,000.00	$54,000.00	$11,500.00	$69,000.00
10	CURB AND GUTTER FOR AIR VACUUM VALVE & BLOW OFF ASSEMBLIES	1.11	LF	130	$60.00	$7,800.00	$90.00	$11,700.00	$47.00	$6,110.00	$70.00	$9,100.00	$125.00	$16,250.00	$55.00	$7,150.00
11	WATER SAMPLE STATION FOR 30" WATER MAIN	1.12	LS	1	$4,900.00	$4,900.00	$4,300.00	$4,300.00	$4,377.00	$4,377.00	$4,000.00	$4,000.00	$7,500.00	$7,500.00	$14,000.00	$14,000.00
12	SIDEWALK FOR AIR VACUUM VALVES & BLOW OFF ASSEMBLIES	1.13	SF	550	$12.00	$6,600.00	$18.00	$9,900.00	$12.52	$6,886.00	$16.00	$8,800.00	$54.00	$29,700.00	$11.00	$6,050.00
13	30" WATER MAIN - SLURRY BACKFILL	1.14	CY	2500	$178.00	$445,000.00	$140.00	$350,000.00	$109.00	$272,500.00	$115.00	$287,500.00	$200.00	$500,000.00	$115.00	$287,500.00
14	30" WATER MAIN-AC PAVING W/O 2" SURFACE COURSE BETWEEN THOUSAND OAKS BLVD & COUNTY LINE	1.15	TONS	800	$173.00	$138,400.00	$180.00	$144,000.00	$363.00	$290,400.00	$120.00	$96,000.00	$205.00	$164,000.00	$115.00	$92,000.00
15	30" WATER MAIN-AC PAVING BETWEEN COUNTY LINE & STA 7+05	1.15	TONS	120	$142.00	$17,040.00	$180.00	$21,600.00	$363.00	$43,560.00	$120.00	$14,400.00	$205.00	$24,600.00	$250.00	$30,000.00
16	FLUSHING, TESTING AND DISINFECTION OF 30" WATER MAIN	1.16	LS	1	$35,470.00	$35,470.00	$68,000.00	$68,000.00	$21,630.00	$21,630.00	$40,000.00	$40,000.00	$15,000.00	$15,000.00	$14,000.00	$14,000.00
17	INSTALLATION OF 6" & 4" RECYCLED WATER MAIN	1.23	FT	1882	$54.00	$101,628.00	$150.00	$282,300.00	$129.95	$244,565.90	$200.00	$376,400.00	$100.00	$188,200.00	$85.00	$159,970.00
18	4" FUSIBLE HDPE-HORIZONTAL DIRECTIONAL DRILLING	1.24	FT	100	$134.00	$13,400.00	$250.00	$25,000.00	$208.00	$20,800.00	$100.00	$10,000.00	$440.00	$44,000.00	$155.00	$15,500.00
19	RECYCLED WATER MAIN-SLURRY BACKFILL	1.25	CY	250	$184.00	$46,000.00	$140.00	$35,000.00	$151.00	$37,750.00	$115.00	$28,750.00	$195.00	$48,750.00	$115.00	$28,750.00
20	RECYCLED WATER MAIN-AC PAVING W/O 2" SURFACE COURSE	1.26	TONS	120	$327.00	$39,240.00	$200.00	$24,000.00	$166.00	$19,920.00	$115.00	$13,800.00	$205.00	$24,600.00	$110.00	$13,200.00
21	REMOVE AND RELOCATE EXISTING 4" METER	1.27	LS	1	$9,500.00	$9,500.00	$4,900.00	$4,900.00	$7,382.00	$7,382.00	$3,500.00	$3,500.00	$30,000.00	$30,000.00	$7,500.00	$7,500.00
22	AIR VACUUM VALVE & BLOW OFF ASSEMBLIES FOR RECYCLED WATER MAIN	1.28	EA	2	$6,300.00	$12,600.00	$6,900.00	$13,800.00	$6,432.00	$12,864.00	$5,000.00	$10,000.00	$8,500.00	$17,000.00	$9,000.00	$18,000.00
23	FLUSHING, TESTING, & DISINFECTION OF RECYCLED WATER MAIN	1.29	LS	1	$3,100.00	$3,100.00	$17,000.00	$17,000.00	$5,640.00	$5,640.00	$7,500.00	$7,500.00	$6,000.00	$6,000.00	$8,200.00	$8,200.00
24	CONTRACTOR MARKUPS OF THE CONSTRUCTION PLANS OF CHANGES TO PRODUCE RECORD DRAWINGS	1.30	LS	1	$470.00	$470.00	$5,000.00	$5,000.00	$5,775.00	$5,775.00	$10,000.00	$10,000.00	$2,000.00	$2,000.00	$2,200.00	$2,200.00
25	STORMWATER POLLUTION PREVENTION PLAN AND ENVIRONMENTAL PROTECTION REQUIREMENTS FOR THE ENTIRE PROJECT INCLUDING MITIGATION MEASURES	1.31	LS	1	$7,000.00	$7,000.00	$30,000.00	$30,000.00	$8,900.00	$8,900.00	$50,000.00	$50,000.00	$15,000.00	$15,000.00	$7,000.00	$7,000.00
BASE BID SCHEDULE TOTAL						**$2,547,266.00**		**$3,458,350.00**		**$3,561,028.90**		**$4,297,620.00**		**$3,902,948.00**		**$3,516,170.00**

Calleguas-Las Virgenes Interconnection Project
Owner: Las Virgenes Municipal Water District

Bid Opening: 8/12/2020

					Toro Enterprises, Inc. 2101 E. Ventura Boulevard Oxnard, CA 93036 805-483-4515 **License No: 710580** **Bidder Status: Valid**		MNR Construction, Inc. 1880 Wright Avenue La Verne, CA 91750 909-592-2760 **License No: 891298** **Bidder Status: Valid**		Cedro Construction, Inc. 120 E. Santa Maria Street Santa Paula, CA 93060 805-525-0599 **License No: 775943** **Bidder Status: Valid**		Colich & Sons, LP 547 W. 140th Street Gardena, CA 90248 310-516-6346 **License No: 783522** **Bidder Status: Valid**		Blois Construction 3201 Sturgis Road Oxnard, CA 93030 805-656-1432 **License No: 256065** **Bidder Status: Valid**		Sully-Miller Contracting Co 135 S. State College Blvd, #400 Brea, CA 92821 714-578-9600 **License No: 747612** **Bidder Status: Valid**	
Calleguas-Las Virgenes Interconnection Project					**Bidder #1**		**#2**		**#3**		**#4**		**#5**		**#6**	
BASE PAVING BID SCHEDULE 1-AC SURFACE PAVEMENT FOR 30" PIPELINE																
1	MOBILIZATION	1.02	LS	1	$1,300.00	$1,300.00	$10,000.00	$10,000.00	$21,080.00	$21,080.00	$15,000.00	$15,000.00	$4,000.00	$4,000.00	$13,500.00	$13,500.00
2	DEMOBILIZATION AT PROJECT COMPLETION	1.03	LS	1	$4,700.00	$4,700.00	$5,000.00	$5,000.00	$9,357.00	$9,357.00	$15,000.00	$15,000.00	$4,000.00	$4,000.00	$1,500.00	$1,500.00
3	BONDS AND INSURANCE	1.04	LS	1	$2,000.00	$2,000.00	$10,000.00	$10,000.00	$3,000.00	$3,000.00	$10,000.00	$10,000.00	$2,000.00	$2,000.00	$760.00	$760.00
4	TRAFFIC CONTROL	1.05	LS	1	$5,900.00	$5,900.00	$30,000.00	$30,000.00	$40,000.00	$40,000.00	$25,000.00	$25,000.00	$6,000.00	$6,000.00	$24,887.00	$24,887.00
5	30" WATER MAIN-AC SURFACE PAVING	1.15	TONS	900	$123.00	$110,700.00	$170.00	$153,000.00	$175.00	$157,500.00	$110.00	$99,000.00	$205.00	$184,500.00	$115.00	$103,500.00
6	RECYCLED WATER MAIN-AC SURFACE PAVING	1.26	TONS	90	$275.00	$24,750.00	$170.00	$15,300.00	$175.00	$15,750.00	$110.00	$9,900.00	$205.00	$18,450.00	$215.00	$19,350.00
7	CONTRACTOR MARKUPS OF THE CONSTRUCTION PLANS OF CHANGES TO PRODUCE RECORD DRAWINGS	1.30	LS	1	$470.00	$470.00	$5,000.00	$5,000.00	$1,660.00	$1,660.00	$1,500.00	$1,500.00	$750.00	$750.00	$2,200.00	$2,200.00
8	STORMWATER POLLUTION PREVENTION PLAN AND ENVIRONMENTAL PROTECTION REQUIREMENTS FOR THE ENTIRE PROJECT INCLUDING MITIGATION MEASURES	1.31	LS	1	$3,915.00	$3,915.00	$7,000.00	$7,000.00	$3,675.00	$3,675.00	$2,500.00	$2,500.00	$4,000.00	$4,000.00	$1,800.00	$1,800.00
9	TRAFFIC DECTOR LOOPS TYPE D	1.32	EA	1	$664.00	$664.00	$950.00	$950.00	$1,155.00	$1,155.00	$750.00	$750.00	$1,800.00	$1,800.00	$620.00	$620.00
10	TRAFFIC DETECTOR LOOPS TYPE E	1.32	EA	3	$664.00	$1,992.00	$850.00	$2,550.00	$1,050.00	$3,150.00	$750.00	$2,250.00	$1,800.00	$5,400.00	$620.00	$1,860.00
BASE PAVING BID SCHEDULE 1 TOTAL						**$156,391.00**		**$238,800.00**		**$256,327.00**		**$180,900.00**		**$230,900.00**		**$169,977.00**

BASE BID																
Total Base Bid Schedule Price						**$2,547,266.00**		**$3,458,350.00**		**$3,561,028.90**		**$4,297,620.00**		**$3,902,948.00**		**$3,516,170.00**
Base Paving Bid Schedule 1 Price						**$156,391.00**		**$238,800.00**		**$256,327.00**		**$180,900.00**		**$230,900.00**		**$169,977.00**
TOTAL BASE BID PRICE						**$2,703,657.00**		**$3,697,150.00**		**$3,817,355.90**		**$4,478,520.00**		**$4,133,848.00**		**$3,686,147.00**

Calleguas-Las Virgenes Interconnection Project
Owner: Las Virgenes Municipal Water District

Bid Opening: 8/12/2020

					Toro Enterprises, Inc. 2101 E. Ventura Boulevard Oxnard, CA 93036 805-483-4515 **License No: 710580** **Bidder Status: Valid**		MNR Construction, Inc. 1880 Wright Avenue La Verne, CA 91750 909-592-2760 **License No: 891298** **Bidder Status: Valid**		Cedro Construction, Inc. 120 E. Santa Maria Street Santa Paula, CA 93060 805-525-0599 **License No: 775943** **Bidder Status: Valid**		Colich & Sons, LP 547 W. 140th Street Gardena, CA 90248 310-516-6346 **License No: 783522** **Bidder Status: Valid**		Blois Construction 3201 Sturgis Road Oxnard, CA 93030 805-656-1432 **License No: 256065** **Bidder Status: Valid**		Sully-Miller Contracting Co 135 S. State College Blvd, #400 Brea, CA 92821 714-578-9600 **License No: 747612** **Bidder Status: Valid**	
	Calleguas-Las Virgenes Interconnection Project				**Bidder #1**		**#2**		**#3**		**#4**		**#5**		**#6**	
	ADDITIVE BID SCHEDULE A-INSTALLATION OF 3-2 INCH CONDUIT FROM THOUSAND OAKS BLVD. TO HEDGEWALL DRIVE															
1	MOBILIZATION	1.02	LS	1	$1,300.00	$1,300.00	$10,000.00	$10,000.00	$14,366.00	$14,366.00	$15,000.00	$15,000.00	$3,200.00	$3,200.00	$18,500.00	$18,500.00
2	DEMOBILIZATION AT PROJECT COMPLETION	1.03	LS	1	$4,800.00	$4,800.00	$5,000.00	$5,000.00	$4,399.00	$4,399.00	$10,000.00	$10,000.00	$1,500.00	$1,500.00	$2,000.00	$2,000.00
3	BONDS AND INSURANCE	1.04	LS	1	$1,000.00	$1,000.00	$12,000.00	$12,000.00	$6,200.00	$6,200.00	$10,000.00	$10,000.00	$5,500.00	$5,500.00	$1,200.00	$1,200.00
4	TRAFFIC CONTROL	1.05	LS	1	$15,700.00	$15,700.00	$10,000.00	$10,000.00	$42,736.00	$42,736.00	$15,000.00	$15,000.00	$12,000.00	$12,000.00	$31,500.00	$31,500.00
5	TRENCHING, SHEETING, AND SHORING SAFETY PROTECTION	1.06	LS	1	$1,800.00	$1,800.00	$15,000.00	$15,000.00	$767.00	$767.00	$10,000.00	$10,000.00	$550.00	$550.00	$35,000.00	$35,000.00
6	INSTALLATION OF 3-2" PVC CONDUIT	1.17	LF	2374	$38.00	$90,212.00	$40.00	$94,960.00	$119.00	$282,506.00	$65.00	$154,310.00	$20.00	$47,480.00	$55.00	$130,570.00
7	3-2" PVC CONDUIT-SLURRY BACKFILL	1.18	CY	200	$212.00	$42,400.00	$145.00	$29,000.00	$80.85	$16,170.00	$115.00	$23,000.00	$185.00	$37,000.00	$115.00	$23,000.00
8	3-2" PVC CONDUIT-AC PAVING W/O 2" SURFACE COURSE	1.19	TONS	150	$130.00	$19,500.00	$200.00	$30,000.00	$199.00	$29,850.00	$110.00	$16,500.00	$255.00	$38,250.00	$215.00	$32,250.00
9	PULL BOX	1.20	EA	6	$3,000.00	$18,000.00	$1,500.00	$9,000.00	$596.00	$3,576.00	$1,500.00	$9,000.00	$2,200.00	$13,200.00	$420.00	$2,520.00
10	CURB AND GUTTER FOR PULL BOXES	1.21	LF	30	$108.00	$3,240.00	$120.00	$3,600.00	$128.00	$3,840.00	$70.00	$2,100.00	$155.00	$4,650.00	$55.00	$1,650.00
11	SIDEWALK FOR PULL BOXES	1.22	SF	150	$21.00	$3,150.00	$20.00	$3,000.00	$25.56	$3,834.00	$16.00	$2,400.00	$45.00	$6,750.00	$11.00	$1,650.00
12	CONTRACTOR MARKUPS OF THE CONSSTRUCTION PLANS OF CHANGES TO PRODUCE RECORD DRAWINGS	1.30	LS	1	$470.00	$470.00	$5,000.00	$5,000.00	$3,000.00	$3,000.00	$2,000.00	$2,000.00	$550.00	$550.00	$2,200.00	$2,200.00
13	STORMWATER POLLUTION PREVENTION PLAN AND ENVIRONMENTAL PROTECTION REQUIREMENTS FOR THE ENTIRE PROJECT INCLUDING MITIGATION MEASURES	1.31	LS	1	$3,900.00	$3,900.00	$10,000.00	$10,000.00	$6,980.00	$6,980.00	$4,000.00	$4,000.00	$2,300.00	$2,300.00	$1,800.00	$1,800.00
	ADDITIVE BID SCHEDULE A TOTAL					**$205,472.00**		**$236,560.00**		**$418,224.00**		**$273,310.00**		**$172,930.00**		**$283,840.00**
	ADDITIVE BID SCHEDULE B-INSTALLATION OF 3-2 INCH CONDUIT FROM THOUSAND OAKS BLVD TO COUNTY LINE															
1	MOBILIZATION	1.02	LS	1	$1,300.00	$1,300.00	$20,000.00	$20,000.00	$14,366.00	$14,366.00	$15,000.00	$15,000.00	$3,200.00	$3,200.00	$38,000.00	$38,000.00
2	DEMOBILIZATION AT PROJECT COMPLETION	1.03	LS	1	$4,800.00	$4,800.00	$10,000.00	$10,000.00	$6,796.00	$6,796.00	$10,000.00	$10,000.00	$1,600.00	$1,600.00	$4,000.00	$4,000.00
3	BONDS AND INSURANCE	1.04	LS	1	$2,000.00	$2,000.00	$22,000.00	$22,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$1,300.00	$1,300.00	$1,850.00	$1,850.00
4	TRAFFIC CONTROL	1.05	LS	1	$31,400.00	$31,400.00	$20,000.00	$20,000.00	$67,725.00	$67,725.00	$20,000.00	$20,000.00	$8,500.00	$8,500.00	$28,000.00	$28,000.00
5	TRENCHING, SHEETING, AND SHORING SAFETY PROTECTION	1.06	LS	1	$2,700.00	$2,700.00	$25,000.00	$25,000.00	$1,591.00	$1,591.00	$15,000.00	$15,000.00	$800.00	$800.00	$34,800.00	$34,800.00
6	INSTALLATION OF 3-2" PVC CONDUIT	1.17	LF	4642	$38.00	$176,396.00	$40.00	$185,680.00	$89.00	$413,138.00	$65.00	$301,730.00	$20.00	$92,840.00	$46.00	$213,532.00
7	3-2" PVC CONDUIT-SLURRY BACKFILL	1.18	CY	400	$207.00	$82,800.00	$145.00	$58,000.00	$111.00	$44,400.00	$115.00	$46,000.00	$185.00	$74,000.00	$120.00	$48,000.00
8	3-2" PVC CONDUIT-AC PAVING W/O 2" SURFACE COURSE	1.19	TONS	300	$130.00	$39,000.00	$180.00	$54,000.00	$161.00	$48,300.00	$110.00	$33,000.00	$255.00	$76,500.00	$155.00	$46,500.00
9	PULL BOX	1.20	EA	11	$3,000.00	$33,000.00	$1,500.00	$16,500.00	$412.00	$4,532.00	$1,500.00	$16,500.00	$1,300.00	$14,300.00	$420.00	$4,620.00
10	CURB AND GUTTER FOR PULL BOXES	1.21	LF	55	$118.00	$6,490.00	$120.00	$6,600.00	$148.00	$8,140.00	$70.00	$3,850.00	$100.00	$5,500.00	$55.00	$3,025.00
11	SIDEWALK FOR PULL BOXES	1.22	SF	275	$23.00	$6,325.00	$25.00	$6,875.00	$46.14	$12,688.50	$16.00	$4,400.00	$40.00	$11,000.00	$11.00	$3,025.00
12	CONTRACTOR MARKUPS OF THE CONSTRUCTION PLANS OF CHANGES TO PRODUCE RECORD DRAWINGS	1.30	LS	1	$470.00	$470.00	$5,000.00	$5,000.00	$2,104.00	$2,104.00	$2,500.00	$2,500.00	$550.00	$550.00	$2,200.00	$2,200.00
13	STORMWATER POLLUTION PREVENTION PLAN AND ENVIRONMENTAL PROTECTION REQUIREMENTS FOR THE ENTIRE PROJECT INCLUDING MITIGATION MEASURES	1.31	LS	1	$3,900.00	$3,900.00	$20,000.00	$20,000.00	$2,730.00	$2,730.00	$6,000.00	$6,000.00	$2,300.00	$2,300.00	$1,800.00	$1,800.00
	ADDITIVE BID SCHEDULE B TOTAL					**$390,581.00**		**$449,655.00**		**$636,510.50**		**$483,980.00**		**$292,390.00**		**$429,352.00**

Calleguas-Las Virgenes Interconnection Project
Owner: Las Virgenes Municipal Water District

Bid Opening: 8/12/2020

					Toro Enterprises, Inc. 2101 E. Ventura Boulevard Oxnard, CA 93036 805-483-4515 **License No: 710580** **Bidder Status: Valid**		MNR Construction, Inc. 1880 Wright Avenue La Verne, CA 91750 909-592-2760 **License No: 891298** **Bidder Status: Valid**		Cedro Construction, Inc. 120 E. Santa Maria Street Santa Paula, CA 93060 805-525-0599 **License No: 775943** **Bidder Status: Valid**		Colich & Sons, LP 547 W. 140th Street Gardena, CA 90248 310-516-6346 **License No: 783522** **Bidder Status: Valid**		Blois Construction 3201 Sturgis Road Oxnard, CA 93030 805-656-1432 **License No: 256065** **Bidder Status: Valid**		Sully-Miller Contracting Co 135 S. State College Blvd, #400 Brea, CA 92821 714-578-9600 **License No: 747612** **Bidder Status: Valid**	
Calleguas-Las Virgenes Interconnection Project					**Bidder #1**		**#2**		**#3**		**#4**		**#5**		**#6**	
ALTERNATIVE PAVING BID SCHEDULE 2-AC SURFACE PAVEMENT LINDERO CANYON RD ALL LANES FROM THOUSAND OAKS BLVD TO COUNTY LINE																
1	MOBILIZATION	section 01270 1.02	LS	1	$27,000.00	$27,000.00	$30,000.00	$30,000.00	$14,366.00	$14,366.00	$25,000.00	$25,000.00	$13,000.00	$13,000.00	$75,000.00	$75,000.00
2	TRAFFIC CONTROL	section 0127 1.05	LS	1	$46,000.00	$46,000.00	$50,000.00	$50,000.00	$23,659.00	$23,659.00	$20,000.00	$20,000.00	$40,000.00	$40,000.00	$48,200.00	$48,200.00
3	BONDS AND INSURANCE	section 0127 1.04	LS	1	$6,000.00	$6,000.00	$25,000.00	$25,000.00	$12,000.00	$12,000.00	$10,000.00	$10,000.00	$2,200.00	$2,200.00	$3,750.00	$3,750.00
4	2" COLD MILL	908-6	SF	336,879	$0.36	$121,276.44	$0.40	$134,751.60	$0.40	$134,751.60	$0.44	$148,226.76	$0.70	$235,815.30	$0.45	$151,595.55
5	ARHM OVERLAY	909-4	TN	4,155	$112.75	$468,476.25	$104.70	$435,028.50	$109.72	$455,886.60	$115.00	$477,825.00	$185.00	$768,675.00	$120.00	$498,600.00
6	HIGH TENSILE FIBER	909-4	LB	4,155	$12.00	$49,860.00	$12.00	$49,860.00	$12.60	$52,353.00	$13.00	$54,015.00	$20.00	$83,100.00	$17.00	$70,635.00
7	ADJUST MANHOLE COVER	913-2	EA	8	$1,220.00	$9,760.00	$970.00	$7,760.00	$984.00	$7,872.00	$1,000.00	$8,000.00	$1,600.00	$12,800.00	$550.00	$4,400.00
8	ADJUST WATER VALVE COVER SLIP-CANS	914-2	EA	3	$80.00	$240.00	$500.00	$1,500.00	$176.00	$528.00	$300.00	$900.00	$1,200.00	$3,600.00	$200.00	$600.00
9	TRAFFIC DETECTOR LOOPS TYPE D	916-2	EA	1	$664.00	$664.00	$950.00	$950.00	$1,942.50	$1,942.50	$750.00	$750.00	$6,000.00	$6,000.00	$620.00	$620.00
10	TRAFFIC DETECTOR LOOPS TYPE E	916-2	EA	3	$664.00	$1,992.00	$850.00	$2,550.00	$1,100.00	$3,300.00	$750.00	$2,250.00	$2,700.00	$8,100.00	$620.00	$1,860.00
11	STRIPING, PAVEMENT MARKINGS, PAVEMENT MARKERS, AND TRAFFIC SIGNS	915-8	LS	1	$20,135.00	$20,135.00	$46,900.00	$46,900.00	$26,250.00	$26,250.00	$20,000.00	$20,000.00	$31,000.00	$31,000.00	$28,000.00	$28,000.00
ALTERNATIVE PAVING BID SCHEDULE 2 TOTAL						**$751,403.69**		**$784,300.10**		**$732,908.70**		**$766,966.76**		**$1,204,290.30**		**$883,260.55**

Calleguas-Las Virgenes Interconnection Project
Owner: Las Virgenes Municipal Water District

Bid Opening: 8/12/2020	**Toro Enterprises, Inc.**	**MNR Construction, Inc.**	**Cedro Construction, Inc.**	**Colich & Sons, LP**	**Blois Construction**	**Sully-Miller Contracting Co**
	2101 E. Ventura Boulevard Oxnard, CA 93036 805-483-4515 **License No: 710580** **Bidder Status: Valid**	1880 Wright Avenue La Verne, CA 91750 909-592-2760 **License No: 891298** **Bidder Status: Valid**	120 E. Santa Maria Street Santa Paula, CA 93060 805-525-0599 **License No: 775943** **Bidder Status: Valid**	547 W. 140th Street Gardena, CA 90248 310-516-6346 **License No: 783522** **Bidder Status: Valid**	3201 Sturgis Road Oxnard, CA 93030 805-656-1432 **License No: 256065** **Bidder Status: Valid**	135 S. State College Blvd, #400 Brea, CA 92821 714-578-9600 **License No: 747612** **Bidder Status: Valid**
Calleguas-Las Virgenes Interconnection Project	**Bidder #1**	**#2**	**#3**	**#4**	**#5**	**#6**
Listed Subs:	**Traffic Control** Total Barricade	**Grind & Cap** All-American Asphalt	**Underground drilling** Ventura Directional Drilling	**Asphalt Grind & Cap** All American Asphalt	**Welding** Loren Brugger Welding	**Striping/Marking** Sterndahl Enterprises
	Survey Benner & Carpenter	**Welding** Loren Brugger Welding	**Striping** Sterndahl Entreprises, Inc.	**Striping** Sterndahl Enterprises	Traffic Control Total Barricade Service	**Traffic Control** Total Barricade Service
	Directional Drill Southwest	**Striping** Superior Pavement Striping	**Traffic Control** Total Barricade	Direct Drilling Ventura Directional Drilling	Paving Hardy & Harper, Inc.	
	Traffic Loops Taft Electric	**Traffic Loops** Traffic Loops & Crack filling	**Surveyor** Benner & Carpenter			
	Striping CHRISP		**Paver** All American Asphalt			
Listed Materials:	**valves** Mueller/Pratt	**BFV/Gate valves/service material** Mueller Company	**BFV/Gate valves/service material** Mueller Company	**30"CML/C steel** West Coast Pipe	**Butterfly Valves** Pratt/Southwest Valves	**BFV/Gate valves/Service material** Mueller Company
	Air Vac Vent-O-Mat	**Air/Vacuum** Vent-O-Mat	**Air/Vacuum** Vent-O-Mat	**PVC Pipe** Diamond	**Gate Valves** Mueller	**Air/Vacuum** Vent-O-Mat
	PVC Pipe Diamond	**PVC Pipe** JM-Eagle/Diamond	**PVC Pipe** JM-Eagle	**Air/Vacuum** Vent-O-Matic	**Ductile Fittings** Tyler Fittings	**PVC Pipe** JM-Eagle
	Service Brass Ford	**DI Fittings** SIP/Star/Sigma	**DI Fittings** SIP/Star/Sigma	**DI Fittings** Star/SIP	**Air/Vacs** Vent-O-Mat	**DI Fittings** SIP/Star/Sigma
	Fittings Star/SIP		**AWWAC200 Pipe** West Coast Pipe	**Valves** Mueller/Pratt	**AWWA C200 Pipe** West Coast Pipe	**CMLC Pipe** West Coast Pipe
	AWWA C200 Pipe West Coast Pipe					**AC Material** Blue Diamond Materials

BID BOND 10%	*YES*	*YES*	*YES*	*YES*	*YES*	*YES*
BID SCHEDULE CORRECT	*YES*	*YES*	*NO*	*NO*	*YES*	*YES*
REFERENCES	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
RELATED EXPERIENCE	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
CONTRACTORS LISENSE	*YES "A"*	*YES "A"*	*YES "A"*	*YES "A"*	*YES "A"*	*YES "A"*
DIR REGISTRATION	*YES*	*YES*	*YES*	*YES*	*YES*	*YES*
ON TIME	*YES*	*YES*	*YES*	*YES*	*YES*	*YES*

GENERAL ENGINEERING
CONTRACTORS

August 18,2020

Via E-Mail & Fax #818-251-2109

Mr. Oliver Slosser, P.E.
Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 91302-1994
oslosser@lvmwd.com

Re: Toro Enterprises Requests LVMWD to Allow Withdrawal of its Bid
Calleguas – LVMWD Interconnection Project
Bid Opening Date: 8.12.2020

Dear Mr. Slosser,

I regret to inform you that Toro Enterprises erred in its bid for the subject project, and therefore we request LVMWD's consent to allow us to withdraw our bid.

Reason for Bid Withdrawal:
When inserting our material unit cost for 30" CMLC Steel Water Main into the estimating program (i.e. Bid Item 6 in the Base Bid Schedule), we erroneously inserted "$15.10" per lineal foot before 9.5% tax. The correct material unit cost should have been "$115.10" per lineal foot before 9.5% tax.

The erroneous price input created the following bid mistake:

- The mistaken material price that was inserted to the bid: 4,979 LF X 15.10 X 1.095 = $82,326
- Less the correct material price that should have been inserted: 4,979 LF X 115.10 X 1.095 = ($627,526)

Amount of Toro's Reduced Bid Price Due to Mistaken Material Price Input: ($545,200)

Conclusion:
It is Toro's contention that based on Section 5103 of California Public Contract Code, the circumstances described above constitute bid mistake that made Toro's bid materially different than Toro intended it to be. Accordingly, Toro requests from the LVMWD consent to withdraw its bid.

Respectfully submitted,

Sean Castillo, President
Sean@ToroEnterprises.Com

Cannon

Opinion of Probable Construction Costs

LVMWD Calleguas - LV Interconnection
City of Westlake Village
Base Bid - 30" and Recycled Water Line

NO.	ITEM	QUANTITY		UNIT PRICE	TOTAL COST
1	Mobilization	1	LS	$150,000	$150,000
2	Demolization at Project completion	1	LS	$50,000	$50,000
3	Bonds and Insurance	1	LS	$75,000	$75,000
4	Traffic Control	1	LS	$65,000	$65,000
5	Trenching, Sheeting, and Shoring Safety Protection	1	LS	$75,000	$75,000
6	Installing of 30" CMLC Steel Water Main	4979	LF	$440	$2,190,760
7	Connection to Existing Pipe at STA 56+88.95	1	LS	$160,000	$160,000
8	Cathodic Protection	1	LS	$65,000	$65,000
9	Air Vacuum Valve and Blow Off Assemblies for 30" Water Main	6	EA	$10,000	$60,000
10	Curb and Gutter for Air Vacuum Valve, Blow Off Assemblies, and Water Stample Station	130	LF	$55	$7,150
11	Water Sample Station for 30" Water Main	1	EA	$45,000	$45,000
12	Sidewalk for Air Vacuum Valves and Blow Off Assemblies	550	SF	$12	$6,600
13	30" Water Main - Slurry Backfill Between T.O. and STA 7+05	2500	CY	$132	$330,000
14	30" Water Main - AC Paving w/o 2" Surface Course Between T.O and County Limit	800	TON	$132	$105,600
15	30" Water Main - AC Paving Between County Limit and STA 7+05	120	TON	$132	$15,840
16	Flushing, Testing, and Disinfection of 30" Water Main	1	LS	$35,000	$35,000
17	Installation of 6" and 4" PVC Recycled Water Main	1882	LF	$65	$122,330
18	4" Fusible HDPE - Horizontal Directional Drill	100	LF	$375	$37,500
19	Recycled Water Main - Slurry Backfill	250	CY	$132	$33,000
20	Recycled Water Main - AC Paving w/o 2" Surface Course	120	TON	$132	$15,840
21	Remove and Relocate Existing 4" Meter	1	LS	$12,000	$12,000
22	Air Vacuum Valve and Blow Off Assemblies for Recycled Water Main	2	EA	$6,500	$13,000
23	Flushing, Testing, and Disinfection of Recylced Water Main	1	LS	$3,500	$3,500
24	Contractor Markups of the Construction Plans of Changes to Produce Record Drawings	1	LS	$8,500	$8,500
25	Stormwater Pollution Prevention Plan and Environmental Protection Requirements for the Entire Project including Mitigation Measures	1	LS	$25,000	$25,000
	Total				**$3,707,000**
	15% Contingency				**$556,000**
	Grand Total With Contingency				**$4,263,000**

In providing opinions of probable construction costs, the client must understand that Cannon has no control over the costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinions of probable costs provided herein are made on the basis of Cannon qualifications and experience. Cannon makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to bid or actual costs.

Abbreviations: EA = Each, SY = Square Yard, LF = Lineal Feet, LS = Lump Sum, SF = Square Feet, CY = Cubic Yard.

Opinion of Probable Construction Costs

LVMWD Calleguas - LV Interconnection

City of Westlake Village

Additive Bid Schedule A

AC Surface Pavement of 30" and Recycled Water Line

NO.	ITEM	QUANTITY		UNIT PRICE	TOTAL COST
1	Mobilization	1	LS	$8,000	$8,000
2	Demolization at Project completion	1	LS	$3,500	$3,500
3	Bonds and Insurance	1	LS	$15,000	$15,000
4	Traffic Control	1	LS	$16,000	$16,000
5	30" Water Main - Top 2" of AC Paving from T.O to County Line	900	TON	$132	$118,800
6	Recycled Water Main - Top 2" of AC Paving	90	TON	$132	$11,880
7	Contractor Markups of the Construction Plans of Changes to Produce Record Drawings	1	LS	$3,500	$3,000
8	Stormwater Pollution Prevention Plan and Environmental Protection Requirements for the Entire Project including Mitigation Measures	1	LS	$9,000	$8,000
9	Traffic Loop	1	LS	$3,000	$3,000
	Total				**$187,000**
	15% Contingency				**$28,000**
	Grand Total With Contingency				**$215,000**

In providing opinions of probable construction costs, the client must understand that Cannon has no control over the costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinions of probable costs provided herein are made on the basis of Cannon qualifications and experience. Cannon makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to bid or actual costs.

Abbreviations: EA = Each, SY = Square Yard, LF = Lineal Feet, LS = Lump Sum, SF = Square Feet, CY = Cubic Yard.

Cannon

Opinion of Probable Construction Costs

LVMWD Calleguas - LV Interconnection

City of Westlake Village

Conduit between T.O and Hedgewall

NO.	ITEM	QUANTITY		UNIT PRICE	TOTAL COST
1	Mobilization	1	LS	$5,000	$5,000
2	Demolization at Project completion	1	LS	$3,500	$3,500
3	Bonds and Insurance	1	LS	$5,500	$5,500
4	Traffic Control	1	LS	$4,000	$4,000
5	Trenching, Sheeting, and Shoring Safety Protection	1	LS	$4,500	$4,500
6	Installation of (3) 2" PVC Conduit	2374	LF	$40	$94,960
7	(3) 2" PVC Conduit - Slurry Backfill	200	CY	$132	$26,400
8	(3) 2" PVC Conduit - AC Paving w/o 2" Surface Course	150	TON	$132	$19,800
9	Pull Box	6	EA	$1,500	$9,000
10	Curb and Gutter for Pull Boxes	30	LF	$55	$1,650
11	Sidewalk for Pull Boxes	150	SF	$12	$1,800
12	Contractor Markups of the Construction Plans of Changes to Produce Record Drawings	1	LS	$1,000	$1,000
13	Stormwater Pollution Prevention Plan and Environmental Protection Requirements for the Entire Project including Mitigation Measures	1	LS	$2,500	$2,500
	Total				**$180,000**
	15% Contingency				**$27,000**
	Grand Total With Contingency				**$207,000**

In providing opinions of probable construction costs, the client must understand that Cannon has no control over the costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinions of probable costs provided herein are made on the basis of Cannon qualifications and experience. Cannon makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to bid or actual costs.

Abbreviations: EA = Each, SY = Square Yard, LF = Lineal Feet, LS = Lump Sum, SF = Square Feet, CY = Cubic Yard.

Cannon

Opinion of Probable Construction Costs

LVMWD Calleguas - LV Interconnection

City of Westlake Village

Conduit between T.O and County Line

NO.	ITEM	QUANTITY		UNIT PRICE	TOTAL COST
1	Mobilization	1	LS	$10,000	$10,000
2	Demolization at Project completion	1	LS	$10,000	$10,000
3	Bonds and Insurance	1	LS	$7,500	$7,500
4	Traffic Control	1	LS	$8,000	$8,000
5	Trenching, Sheeting, and Shoring Safety Protection	1	LS	$8,000	$8,000
6	Installation of (3) 2" PVC Conduit	4642	LF	$40	$185,680
7	(3) 2" PVC Conduit - Slurry Backfill	400	CY	$132	$52,800
8	(3) 2" PVC Conduit - AC Paving without 2" Surface Course	300	TON	$132	$39,600
9	Pull Box	11	EA	$1,500	$16,500
10	Curb and Gutter for Pull Boxes	55	LF	$55	$3,025
11	Sidewalk for Pull Boxes	275	SF	$12	$3,300
12	Contractor Markups of the Construction Plans of Changes to Produce Record Drawings	1	LS	$1,000	$1,000
13	Stormwater Pollution Prevention Plan and Environmental Protection Requirements for the Entire Project including Mitigation Measures	1	LS	$5,000	$5,000
	Total				**$350,000**
	15% Contingency				**$53,000**
	Grand Total With Contingency				**$403,000**

In providing opinions of probable construction costs, the client must understand that Cannon has no control over the costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinions of probable costs provided herein are made on the basis of Cannon qualifications and experience. Cannon makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to bid or actual costs.

Abbreviations: EA = Each, SY = Square Yard, LF = Lineal Feet, LS = Lump Sum, SF = Square Feet, CY = Cubic Yard.

Opinion of Probable Construction Costs

LVMWD Calleguas - LV Interconnection

City of Westlake Village

Base Bid	
Base Bid Schedule Installation of 30 Inch Steel Pipeline	$4,263,000
Base Paving Bid Schedule 1 AC Surface Pavement for 30" Pipeline	$215,000
TOTAL BASE BID	***$4,478,000***
Additive/Alterenate Bids	
Additive Bid Schedule A Installation of 3-2 Inch Conduit from Thousand Oaks Blvd. to Hedgewall Dr.	$207,000
Additive Bid Schedule B Installation of 3-2 Inch Conduit from Thousand Oaks Blvd. to County Line	$403,000
Alternative Paving Bid Schedule 2 AC Surface Pavement Lindero Canyon Rd. All Lanes From Thousand Oaks Blvd. to County Line	$746,526

In providing opinions of probable construction costs, the client must understand that Cannon has no control over the costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinions of probable costs provided herein are made on the basis of Cannon qualifications and experience. Cannon makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to bid or actual costs.

REQUEST FOR PROPOSALS
FOR

Calleguas-Las Virgenes Interconnection Project

Construction Management and Inspection Services

PROPOSALS DUE July 28, 2020 at 3:00 p.m.

LAS VIRGENES MUNICIPAL WATER DISTRICT
4232 LAS VIRGENES ROAD
CALABASAS CA 91302
818.251.2100

July 2020

REQUEST FOR PROPOSALS
Las Virgenes Municipal Water District

TABLE OF CONTENTS

I. Introduction
II. Background Information
III. Scope of Work
IV. Outside Services Provided by District
V. Minimum Consultant Qualifications
VI. Proposal Requirements
VII. Evaluation Criteria
VIII. RFP Schedule

ATTACHMENTS (Electronic)

Agreement for Professional Services (see below)

PLANS AND SPECIFICATIONS (Electronic)

Plans and specifications for the construction of the interconnection can be found at the following FTP Site Location beginning on July 9, 2020:

https://www.dropbox.com/sh/ohf5qurcgttzfq2/AACVuA0DI6sIKvb8FxTLf_5ma?dl=0

I. INTRODUCTION

The Las Virgenes Municipal Water District (District) invites your firm to submit a proposal to provide engineering services during construction of the Calleguas-Las Virgenes Interconnection Project. Engineering services during construction will include:

- Construction Management
- Inspection
- Administration

A scope of work is included to assist you in the preparation of your proposal. Failure to submit information in accordance with the requirements in this Request for Proposal (RFP) may be cause for disqualification.

Questions regarding this Request for Proposals can be submitted to Project Manager, Oliver Slosser, P.E. at (818) 585-7123 or via email at oslosser@LVMWD.com. All questions regarding this request must be submitted before July 17, 2020 at 5:00 p.m. The District will provide responses to questions by July 21, 2020 through addendum to be posted on the District website.

II. BACKGROUND INFORMATION

The Las Virgenes Municipal Water District is a special district established in 1958. The service area encompasses 122-square miles in western Los Angeles County and includes the incorporated cities of Hidden Hills, Calabasas, Agoura Hills, Westlake Village, and Chatsworth as well as unincorporated areas. The District provides potable water, recycled water and wastewater service to a population of approximately 70,000. The sanitation and recycled water services are provided through a Joint Powers Authority (JPA) with Triunfo Water and Sanitation District (TWSD).

The District maintains a water distribution system that includes 24 potable water tanks, 24 pump stations, 107 pressure-reducing stations, approximately 400 miles of potable water pipelines, and Westlake Filtration Plant. The District also maintains 2 recycled water tanks, 1 recycled water reservoir, miles of recycled water mains, Rancho Las Virgenes Compost Facility, and Tapia Water Reclamation Facility as part of the JPA agreement.

The District currently employs one full time staff member whom inspects construction and several employees who perform construction management for various projects; however, at times it is necessary to augment the District staff due to additional workload and schedule conflicts. The District is currently seeking professional services from a qualified firm to provide construction management and inspection for the Calleguas-Las Virgenes Interconnection Project to ensure successful, timely, and cost effective completion.

Calleguas-Las Virgenes Interconnection Project is a Capital Improvement Project being constructed in order to increase water reliability and availability for both agencies and provide flexibility during times of emergency, scarcity, or outage. Both the District's and Calleguas' potable water systems are subject to scheduled and unscheduled interruptions of water deliveries that can negatively impact their' ability to deliver potable water to their respective customers. The District and Calleguas have determined that an interconnection between their potable water systems would be of mutual benefit and improve system reliability.

This project will primarily consist of open-cut installation of roughly one mile of 30-inch diameter, cement-mortar lined and coated welded steel pipe installed from the intersection of Thousand Oaks Boulevard and Lindero Canyon Road, north along Lindero Canyon Road to the County line. In addition, multiple additive bid schedules have been defined and may be included in the final scope. These items consist of paving overlay of the open-cut trench (either paving of the trench only or full street paving within the project limits), as well as installation of a new recycled water main, and installation of fiber optic conduit in the open-cut trench. These additive items rely upon participation in the project by the City of Westlake Village and a final approved scope will be determined upon award of bid to the contractor. The selected consultant will need to track costs and hours for any City of Westlake Village work separately in order to facilitate reimbursement and grant compliance.

III. SCOPE OF WORK

The District is seeking the professional services from qualified firms to provide construction management and inspection services for the Calleguas-Las Virgenes Interconnection Project. The consultant will provide project management through the construction phase. The scope includes providing day-to-day administrative, technical, budget management, site observation, and coordination for the project to meet scope, schedule, and budget objectives. Proposals shall include construction manager(s) and inspector(s) resumes, which highlight certifications and experience delivering similar projects.

The anticipated scope of includes:

1) Project Administration
    a. Facilitating progress meetings, generating meeting minutes, tracking action items
    b. Submittal routing and tracking
    c. RFI's routing and tracking
    d. Project Punch list - the consultant shall prepare a comprehensive preliminary final punch list. After the contractor has completed substantial lists of those deficiencies, consultant shall prepare a final punch list.
    e. Review contractor-supplied/on-hand redlines.
    f. Provide Monthly Reports of construction activities and status of project budget, progress, photos, etc.
    g. Budget and Time Management
        i. Progress Payment Request Review
        ii. Potential and Approved Change Order tracking and routing
        iii. Review of contractor schedule, and tracking of delays
    h. Closeout of project – the consultant shall closeout all project activities with the contractor. Consultant shall deliver all project files to the District.
2) Pre-Construction Phase:
    a. The Consultant shall visit, and become familiar with the project site and associated construction areas. Consultant shall review the project documents and become familiar with the following:
        i. Construction drawings and specifications
        ii. Phasing, scheduling, and sequencing of construction.
        iii. Local, state, and federal regulations pertaining to the project
        iv. District policy and procedure
        v. Environmental documents and required mitigation measures

b. Consultant will attend a kick-off meeting with the District Project Manager, District Inspector, and the Design Engineer to become familiar with the scope of work and the District's construction management and inspection procedure.
c. Consultant will provide constructability input to assist owner and engineer in review of submittals and RFI's

3) Construction Management, Inspection & Coordination: The Consultant shall provide construction management and inspection services to include but not be limited to the following:
   a. Provide as-needed onsite management and inspection.
   b. Site Observation
      i. The District will provide minimal Construction Inspection services.
      ii. Selected consultant will act as a field representative for the District and report conflicts and complaints by local residents and other stakeholders throughout the project
      iii. The selected firm will provide site observation and coverage of inspection as needed outside of what the District provides.
      iv. Site observation includes coordination, general inspection, progress tracking, and notifications to staff regarding additional inspections required.
      v. It is anticipated that District Inspection Staff will have limited availability and District's Inspector will not be available on-site. On-site activities will be handled by the selected firm.
      vi. Provide inspection report highlighting the field inspected (civil, mechanical, etc.), progress, construction activities, deviations from the contract documents, weather conditions, and other pertinent information.
      vii. Provide photographic record in the inspection report. Each photo is to be properly labelled with a date stamp and description.
      viii. Coordinate with District inspector on monitoring contractor's workmanship and materials for a general conformance to the Contract Documents. Conflicts with plans and specifications brought up by contractor during field inspections must be included in the inspection report, and brought to the attention of the District's inspector.
      ix. Consultant will be responsible for observing and enforcing the EIR mitigation measures. Final EIR prepared by Calleguas Municipal Water District (CMWD) is available at http://www.calleguas.com/cmwd-lvmwd-feir.pdf.
      x. Inspector may be asked to establish punch list, and conduct a completion walk through.
      xi. Enforce contract requirements, District code, and compliance to various city ordinances where applicable.
   c. Coordination
      i. Coordinate with contractor, District staff, District Project Manager and Inspector.
      ii. Coordinate with the District inspector on monitoring contractor's workmanship and materials for the general conformance to the Contract Documents.
      iii. Coordinate closely with District staff to ensure contractor phasing and construction meets the District requirements.
      iv. Coordinate and communicate with the District's public outreach staff regarding scheduling, notifications, and communications.

4) Construction managers and inspectors are expected to keep records on hours. The selected consultant will need to track costs and hours for any City of Westlake Village work separately in order to facilitate reimbursement and grant compliance.

The consultant shall provide overall construction management for the purpose of determining compliance with the technical provisions of the project's Contract Documents, which includes communicating with the Contractor, attending construction meetings, and coordinating with the District throughout the construction period.

This Scope of Work is for the District's portion of the interconnection only; CMWD will be constructing a pump and pressure reducing station and 30-inch diameter pipeline concurrently with this project.

This project is partially funded through a Prop 84 IRWM Grant. The consultant shall administer the construction management, inspection, and administrative tasks in compliance with the grant. The grant agreement has been included as Attachment A for reference. Consultant will assist in grant quarterly reporting and other grant requirements as needed. Invoicing shall be structured in a way that meets the grant requirement for reimbursement eligibility. The IRWM agreement will be made available on the District ftp listed above.

The anticipated duration of this contract shall be 210 calendar days. The construction contract will have a period of performance of 180 calendar days; we anticipate a further 15 calendar days both before and after the construction contract for the construction management and inspection consultant to perform their work.

This contract, particularly the inspection portion, may require the consultant to work night time hours.

IV. OUTSIDE SERVICES PROVIDED BY DISTRICT

As part of the overall project, the District will do the below services:

- Cannon Corporation (Cannon), will be under contract to provide design support services during construction.
- The District has a labor compliance program (LCP) which is currently being administered by the District's consultant, Contractor Compliance and Monitoring, Inc. Selected consultant shall assist as needed for support of the LCP Program
- LVMWD will retain the services of a consultant to perform cultural resources training for the selected construction management /inspection firm and the selected contractor.

V. MINIMUM CONSULTANT QUALIFICATIONS

The firm who is awarded construction management services will have oversight staff on their team that has a State of California Professional Engineer License, and on-site personnel need not have a Professional Engineer License. On-site personnel shall serve as the District's point of contact, and shall be proficient in water facility construction management and constructability.

The District's standard Agreement for Professional Services is included as an attachment. The consultant shall have the ability to execute the agreement in this form. Professional liability insurance in the amount of $2 million is required.

VI. PROPOSAL REQUIREMENTS

1) Legal name of firm with address, telephone number and the name of at least one principal.
2) Project understanding and approach, including resource capacity to perform work on several projects simultaneously.
3) A recommended scope of work which clearly displays an understanding of the project, using as a basis the preliminary scope of work outlined above.
4) Names and résumés of individual(s) proposed to perform the services, including proof of professional registrations, as appropriate.
5) Description of the firm's internal quality control process.
6) Names, qualifications and principals of any sub-consultants to be utilized in providing the service(s).
7) References for 3 recently completed projects of similar size and scope, including contact person and telephone number.
8) Certificate of professional liability insurance.
9) Cost to perform the delineated services and schedule of rates. The proposal shall have both the qualifications and cost in one package.
10) List any assumptions.

VII. EVALUATION CRITERIA

Proposals will be evaluated based upon the following:

1) The quality of performance on past projects, including those on which the proposed team has worked together.
2) Expertise in the field of water facilities construction management and inspection
3) The ability to provide a comprehensive and understandable scope of work.
4) The firm's history and resource capacity to perform the requested service.
5) The experience and qualifications of assigned personnel.
6) The firm's approach to provide a cost effective solution while providing sufficient resources to meet the needs of the project
7) The ability to meet time schedules

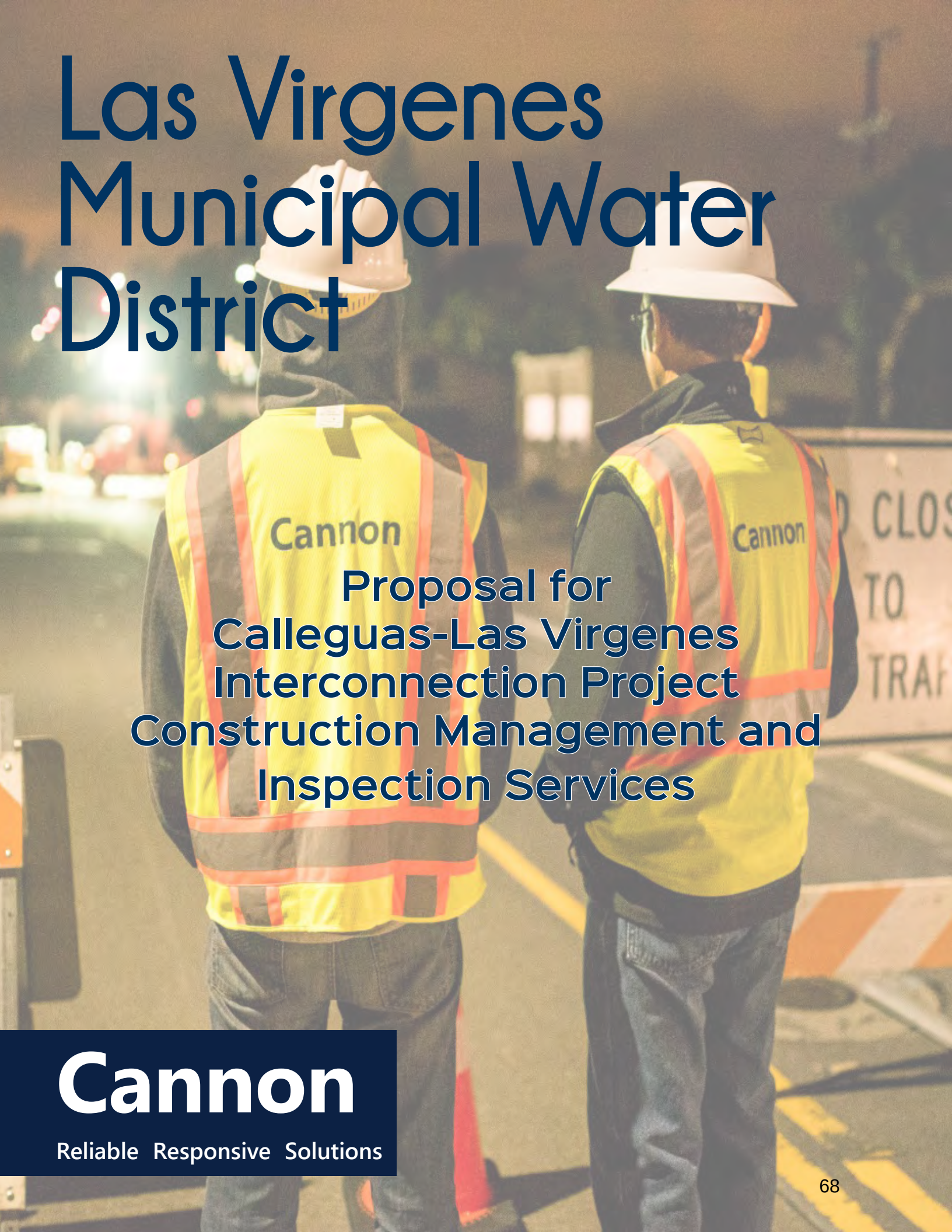
VIII. REQUEST FOR PROPOSAL SCHEDULE

Questions due (5:00 p.m.)	July 17, 2020
District Responses to Questions	July 21, 2020
Proposal Due Date (3:00 p.m.)	July 28, 2020
Acceptance of Proposal and Notice to Proceed (Board meeting)	August 18, 2020

Please submit one (1) digital copy of your proposal no later than 3:00 p.m. on July 28, 2020 by emailing them to:

Oliver Slosser, PE
oslosser@lvmwd.com

Las Virgenes Municipal Water District



Proposal for Calleguas-Las Virgenes Interconnection Project Construction Management and Inspection Services

Cannon

Reliable Responsive Solutions

Oliver Slosser, PE, Project Manager
Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 91302
via email @ oslosser@lvmwd.com

July 28, 2020

Subject: Proposal for Construction Management and Inspection Services for the Calleguas-Las Virgenes Interconnection Project

Dear Mr. Slosser:

The Las Virgenes Municipal Water District (District) has a cri cal role in providing reliable water resources to exis ng and future clients. As communi es grow, water infrastructure must expand to meet the demands of new developments. Con rma on that new infrastructure is installed properly, milestones and deadlines are met, and proper documenta on is maintained throughout will help secure the integrity of construc on for this important interconnec on between the District and the Calleguas Municipal Water District (CMWD).

In general, the upgrades consist of the following major work scope items:

- One mile of new 30-inch cement mortar-lined and coated welded steel pipe, including;
  - Appurtenances for the new waterline including blowo s, air and vacuum release valves, sample sta ons, cathodic test sta ons,
  - Mul ple crossings under large (up to 60") exis ng u li es,
  - Repair of cement mortar lining and coa ng at welds,
  - Connec on to the District's distribu on system, and
  - Back ll with sand bedding and cement slurry.
- Almost 2,000-LF of 4" and 6" PVC recycled waterline
  - About 100-LF of the recycled waterline will be horizontal direc onal drilled.
- Three 2-inch PVC conduits for future ber op c cable.
- Pavement Repair.

The District is currently seeking a construc on management and inspec on team that understands the design documents, is familiar with administering projects of this size and scale, is forward-thinking and capable of handling unforeseen challenges, and has a history of success in managing projects on me and within budget.

Cannon's construc on management and inspec on team includes experienced construc on managers, inspectors, construc on engineers, resident engineers, and can be supplemented with our in-house technical experts in civil, electrical, mechanical, structural, and automa on. We are very familiar with this type of construc on project and will proac vely work with your sta , the contractor, the City of Westlake Village, and the design engineer to an cipate project challenges before they impact the project cost, schedule, or quality of the nished product.

Being located on a busy commuter route, we understand that in addi on to the installa on of the improvements listed above, one of the greatest challenges of this project will be maintaining good public rela ons and minimizing the disturbance to motorists. We are experienced with projects located in busy roads and state highways, and will ensure the contractor is mee ng the requirements of the City of Westlake Village Encroachment Permit, following approved tra c control plans, and following other miscellaneous construc on requirements that can o en be overlooked or neglected.

In addi on, our sta is well versed in the record keeping and document control requirements for grant funded projects. We have provided construc on management and inspec on services for many projects receiving various types of state or federal funding, including one project for the Crescenta Valley Water District that received the same Prop 84 IRWM Grant as this project.

As the Principal in Charge, I will personally provide oversight of this project with Charlie Gray managing the overall progress of the project as Project Manager and Resident Engineer. Charlie, with the assistance of our O ce Engineer Ka e Morris, will provide project administra on including facilita ng project mee ngs, managing submi als and RFI's, reviewing schedules pay applica ons, change orders, and more. Construc on Inspectors, Jameson Farr or Matt N vidad will also be instrumental team members on this project and will be the "boots on the ground" and "eyes and ears" for the dura on of the project construc on. We expect that Jameson or Matt ill coordinate daily with the District's inspector or engineer and contractor's personnel. We also expect that they will coordinate frequently with City of Westlake Village encroachment permit inspectors and the design engineer.

We will be the District's advocate and look forward to providing the level of service and leadership needed to successfully manage and inspect the construc on work for the Calleguas-Las Virgenes Interconnec on project. We look forward to further discussions about this opportunity to work with the District on such a cri cal project

Sincerely,

Pat Riddell, PE No. 72034, Senior Resident Engineer/Principal-In-Charge
11900 West Olympic Blvd., Suite 530, Los Angeles, CA 90064
☎ 805.503.4586 805.235.0576 805.503.4446 ✉ PatR@CannonCorp.us

Table of Contents

Section 1: **Firm Profile**
Introduction
Project Understanding and Approach

Section 2: **Proposed Scope of Work**
Proposed Schedule
Assumptions and Recommendations

Section 3: **Project Team**
Project Organizational Chart
Team Summary

Section 4: **Quality Control Process**

Section 5: **References & Project Experience**

Section 6: **Cost & Schedule of Rates**

Appendix **Required Materials**
Resumes
Proof of Professional Registration
Certificate of Professional Liability Insurance

Cannon Corporation- Providing Reliable Responsive Solutions since 1976

As a full-service construc on management, surveying, and engineering rm, we take pride in our ability to o er clients a broad range of services. Our commitment to providing clients Reliable Responsive Solu ons, whether the project scope is expansive or more specialized, spans 44 years. During that me, we have worked with many ci es, coun es, and agencies to maintain secure and dependable water and wastewater systems, make streets safer and more pedestrian and bicycle-friendly, and construct buildings and facili es that are structurally sound. Likewise, we are dedicated to crea ng sustainable landscapes and providing a high level of technical exper se in areas of low impact development (LID) design. These characteris cs have been an integral part of the capital improvement projects we have completed throughout California.

Cannon's team also includes specialists in public infrastructure design and construc on for projects involving water treatment, storage, distribu on, and transmission systems. We have performed a wide range of construc on management, funding administra on, and engineering services for numerous public improvement projects involving hundreds of miles of pipelines, roadways, and municipal facility sites.

Our experience gives us tremendous insight on the services required to accurately provide Construc on Management and Inspec on Services for the Calleguas-Las Virgenes Interconnec on Project. Cannon is able to provide the following resources to the District:

- Registered Civil, Electrical, Structural, and Mechanical Engineers
- Licensed Land Surveyors and Survey Technicians
- Licensed Landscape Architects
- Caltrans Cer ed Construc on Managers, Inspectors, and Resident Engineers
- Quali ed Stormwater Prac oners and Developers

Principal-In-Charge

Pat Riddell, PE, CPII
11900 West Olympic Blvd, Ste 530
Los Angeles, CA 90064
☎ 805.503.4586
✉ PatR@CannonCorp.us
805.503.4446

Special es:
- Water Resources
- Pipelines
- Roadways and Pavement

Project Manager/ Resident Engineer

Charlie Gray, PE
11900 West Olympic Blvd, Ste 530
Los Angeles, CA 90064
☎ 805.503.4527
✉ CharlieG@CannonCorp.us
805.503.9331
CannonCorp.us

Special es:
- Water Resources
- Pipelines
- Roadways and Pavement

Experience Counts

Our project team o ers exper se in the following areas relevant to your request for professional services for this project:

Construction Management & Inspection

Pipeline Replacement/ Rehabilitation

Pump Stations

Roadway and Pavement

Water Tanks

Inter-Agency Coordination

Summary of Cannon's Construction Management and Inspection Services

Pre-Construc on Ac vi es

- Construc on Management Procedure Prepara on
- Constructability Review
- Bid Prepara on, Evalua on, and Administra on
- Bid Analysis
- Contract Document Evalua on
- Pre-Construc on Conference
- Project Budget Review/Prepara on
- Baseline Schedule Analysis
- Storm Water Pollu on Preven on Plan (SWPPP) Review
- Pre-Construc on Submi al Reviews

Contract Administra on

- Contract Management Plans
- Contract Change Management
- Construc on Records and Procedures

Progress Documenta on

- Weekly Progress Mee ngs
- Look Ahead Schedule
- Weekly Statement of Working Days
- Photo and Video Documenta on
- Weekly/Monthly Progress Reports
- Daily Construc on Reports

Quality Assurance

- Construc on Inspec on
- Special Inspec on
- Contract Compliance Monitoring
- QA/QC Monitoring
- Independent Assurance Coordina on
- Submi al Review
- Request for Informa on (RFI) Processing
- Construc on Document Review

Coordina on and Compliance

- Third Party Coordina on
- U lity Coordina on
- Environmental Compliance Assurance
- Storm Water Pollu on Preven on Plan (SWPPP) Monitoring and Repor ng
- Labor Compliance Programs
- Federal Funding Requirements

Materials

- Materials Exper se/Selec on
- Materials Inspec ons and Records
- Compac on Records
- Sampling and Tes ng Records
- Hazardous Materials Management
- Construc on Waste Monitoring

Forensics

- Inves ga on
- Expert Witness

Surveying

- Quan ty Surveys
- Horizontal and Ver cal Control
- Construc on Staking and Layout
- Grade Checking

Cost Controls and Claims

- Payment Request Review
- Quan ty Calcula ons
- Materials on Hand Payments
- Progress Payments
- Contract Change Order Management
- Extra Work/Adjustments of Compensa on
- Reten on/Deduc ons/Liquidated Damages
- Claims Review and Nego a ons

Schedules

- CPM Scheduling
- CPM Baseline and Updates
- Time Impact Analysis

Project Closeout

- Final Payment
- Final Inspec on of Work
- Punch Lists
- Substan al Comple on and Contract Acceptance
- As-Built Record Drawings
- Final Documents and Construc on Records
- Final Project Report(s)

Understanding

The Las Virgenes Municipal Water District (District) plans to improve its water reliability by connec ng its water system with the Calleguas Municipal Water District (CMWD) with a mile long 30-inch diameter welded steel waterline in Lindero Canyon Road in the City of Westlake Village

Upon comple on of this project, and the comple on of a pump and pressure reducing sta on by the CMWD, both agencies will be able to exchange up to 870 AFY of water and the District will be able ll the Las Virgenes Reservoir by and addi onal 1,300 AF of water each year. The goal of the project is improve system reliability and reduce unscheduled interrup ons of water deliveries to customers.

The construc on Work generally consists of a mile long open cut 30-inch diameter cement mortar lined and coated welded steel pipeline. The pipeline will have several air and vacuum valves, blow o s, and cathodic protec on test sta ons throughout its length. Installa on of the pipeline will include back ll with sand bedding and cement slurry, hauling trench spoils o site, and repairing the pavement and tra c signal detector loops. In addi on, full-width street paving, ber-op c conduit and pull-boxes, and a recycled waterline may be included in the project scope as addi ve bid items. The recycled waterline includes a sec on that will be installed by horizontal direc onal drilling.

Contractor bids are due on August 12th, 2020 and the District expects to provide a no ce to proceed to a construc on management consultant on August 18th. For purposes of this proposal, we assumed the pre-construc on phase services would begin in late August, while the District would issue a No ce to Proceed to the contractor in September.

To verify the project dura on and to validate expected costs, we prepared an independent cost-loaded preliminary schedule to cross-check the $4.2M engineer's es mate and to es mate our level of e ort for construc on management services. Our analysis indicates that a 6-month construc on period (approximately 180 working days) is reasonable to build the improvements. Given a start date in early September 2020, construc on would be complete by the end of February 2021. ***See Preliminary Construction Schedule, Preliminary Expected Cash Flow Detail, and Preliminary Expected Cash Flow Summary on pages 6, 7, and 8 respectively.***

The District intends to hire a professional services consul ng rm to provide assistance with Construc on Management and implementa on of the project. Services under this contract will include Construc on Management du es, Construc on Observa on/Inspec on, and Project Administra on. The selected rm shall demonstrate its ability to perform quality work, control costs, and meet me schedules; provide quali ed leadership through a proven Resident Engineer and suppor ng team sta ; understand the requirements and documenta on associated with the project; and, be able to provide and substan ate its success on previous projects and have the references to back it up.

Approach

Cannon has thoroughly evaluated the District's Request for Proposal dated July 2020 and both addendums, reviewed the June/ July Project Plans and Technical Speci ca ons, reviewed applicable sec ons of the Prop 84 Grant Agreement, and has developed a detailed understanding of the overall goals and ming of the project as discussed above. Based on this research and on our experience with public infrastructure projects related to potable water systems, we have iden ed the following key elements for successful comple on of the Calleguas-Las Virgenes Interconnec on Project. Our overall goal is to apply this knowledge and experience to deliver the high-quality project on- me and within budget.

Construc on Management Exper se

We o er the District exper se with the following services: construc on management, inspec on and engineering; cost controls; schedule review; communica on and documenta on; weekly or monthly progress repor ng; management of RFI's, submi als, and change orders; tracking of labor and equipment hours, and poten al claims management; and payment applica ons. In addi on, our project team has recently completed construc on management of similar improvement projects throughout Central and Southern California.

Technical Exper se

Knowledge and experience in the design, construc on, and sequencing of water/pipeline systems and overall construc on work are cri cal prerequisites for the construc on management team responsible for overseeing the safe and e ec ve construc on of the project. In addi on to being in mately familiar with the project plans, speci ca ons, grant agreement, and District standards, the construc on management team must have a thorough understanding of applicable codes, standards, and technical guidelines such as ANSI, ASTM, AWS, AWWA, CBC, SPPWC and others. Our team provides this knowledge and experience.

Project Approach and Par cipa on from District Sta

The District's priori es are our priori es. Our purpose in managing the construc on is to protect the District's interests and promote goals and objec ves through the successful implementa on and comple on of a project. We believe it is our responsibility to be the District's representa ve in all things related to construc on. To this end, we study the project history, impetus behind the project, people involved in the planning and development process, funding sources and history, the District's speci c goals and interests, and the community at large. We will maintain close coordina on with the District's Project Manager and Inspector regarding any non-compliance, requested eld changes, nal loca ons of appurtenances, and more. Since each project is unique, speci c informa on required by District staff ill be determined at the onset of each project. In general, for each project that Cannon is requested to provide services, we will facilitate a kicko /scoping mee ng with District staff at he onset of each project. At that me, speci c informa on and par cipa on of District staff ill be further developed.

Communica on Strategy & Inter-Agency Coordina on

Communica on is essen al in successfully avoiding or resolving problems that may be encountered during the course of a project. Understanding our role in rela on to the roles of the District Engineer, City of Westlake, and other team members will be a top priority on this project.

We will work closely with all of the project stakeholders from beginning to end. Stakeholders may include District sta , water district customers, City of Westlake Village, grant managers, the design team, residents and businesses owners, tourists, and patrons or motorists from both the local and surrounding communi es. It is impera ve that the construc on manager stay a uned to how each por on of the project impacts each of the stakeholders, and be able to communicate e ec vely (verbally and in wri ng) in the event adjustments are necessary. Onsite staff s responsible to keep all par es informed about the progress of the project. We will develop clear and concise procedures for communica ons that will expedite and facilitate project work. This will make sure informa on is available to the construc on team in the shortest possible me.

E ec ve communica on is the basic founda on of good rela ons. In collabora on with the District, Mr. Gray will implement and assure compliance with established records management procedures for recording and distribu ng project documents. The more complete the documenta on, the more e ec ve the resolu on of any problems that may arise. In addi on, this informa on can be used to avoid claims if the evidence is su cient and clear. Writt n correspondence and notes are of the highest importance.

Tra c Control, Public Safety, and Convenience

The construc on work, being located within busy Lindero Canyon Road, will directly impact nearby businesses and residences. In an e ort to minimize disrup on, Cannon will be responsible for ensuring the contractor provides a clean and safe project site, and that work is scheduled to limit the inconvenience to the residences and businesses located in, or near, the work site. Tra c control, access, dust control, and public safety will be of paramount importance. Our Resident Engineer and Construc on Inspector will work closely with the contractor and City of Westlake Village to ensure that public disrup ons and inconveniences are kept to a minimum, and tra c control plans and encroachment permit requirements are being followed. This project has many unique requirements related to tra c control and public convenience that must be strictly enforced, including working hour restric ons, prohibi ons on staging equipment or stockpiling dirt on local roads, limita ons of consecu ve crosswalks that can be closed, and ensuring signal detector loops are repaired in a mely manner. In addi on, we understand the importance of coordina ng all construc on work with public safety and re staff o that known emergency routes can be modi ed while roadway construc on is taking place.

We understand that the allowable tra c control hours were extended in Addendum 1. The contractor can close southbound lanes between 9:00am and 7:00pm Monday through Friday and northbound lanes 7:00 am to 3:00 pm. The contractor is allowed to work on both the 30" waterline (located in the southbound lanes) and the recycled line (located in the northbound lanes) on the same

day. This creates the poten al for a working day up to 12 hours long. While we are willing to provide onsite inspec on for a 10 or 12 hour day, if needed, for the purpose of this proposal we are assuming the contractor will work a standard 8-hour work day.

Maintaining Water Service

The main purpose of this project is to improve water reliability and minimize unscheduled interrup ons of water deliveries to the District's customers. Considering this, we also want to minimize water service disrup ons during construc on, par cularly during e-ins. This requires advance planning on the Engineer's part, careful execu on on the Contractor's part, and close coordina on with District Opera ons staff a d the CM team. Having worked through numerous water connec on cut-overs on a variety of projects, Cannon's CM team will use its experience and begin coordina on discussions early in the project to an cipate problems and develop solu ons with all par es. Tes ng, ushing, disinfec on, commissioning, and customer no ca ons are factors that need to be considered. We are very aware that District Opera ons is essen al for making this a success.

As currently writt n in the speci ca ons, all new water distribu on system components must be NSF 61 cer ed. This par cular standard establishes minimum health e ects requirements for the chemical contaminants and impuri es that are indirectly imparted to drinking water from products, components, and materials used for drinking water systems. Our construc on inspec on team will look closely at the material-submi als to verify materials meet these standards and are clearly marked prior to incorpora on into the project work.

Shee ng, Shoring, and Bracing

Safety—of workers, the public, and property—is paramount on any construc on project. Given that this project consists of over 5,000 linear feet of pipeline construc on—much of which will require shee ng, shoring, and/or bracing—it is impera ve that all involved stay vigilant and follow the necessary safety precau ons. Contractor requirements include understanding soil condi ons; developing a plan signed by a CA registered engineer; having the means and methods for retaining the trench walls; protec ng exis ng u li es in place; having the ability to construct bedding, pipe, and back ll in accordance with the contract documents; and having the experience to know when changes are necessary to protect workers, the public, and property. These requirements will be at the forefront of our CM sta 's mind from the pre-construc on mee ng through the end of construc on.

U lity Loca ng

Prior to beginning construc on of permanent underground improvements, the Contractor is required to locate and iden fy the horizontal and ver cal loca on of exis ng u li es a ec ng the work. This is not only essen al for safety but also for iden fying discrepancies between the plans and actual condi ons prior to mobiliza on and the possibility of right-of-way delays. Enforcing this requirement at the pre-construc on mee ng will allow that informa on is given to the Engineer in a mely manner such that changes can be made with minimal disrup on and/or cost impacts.

Records, Documenta on, and Grant Funding Requirements

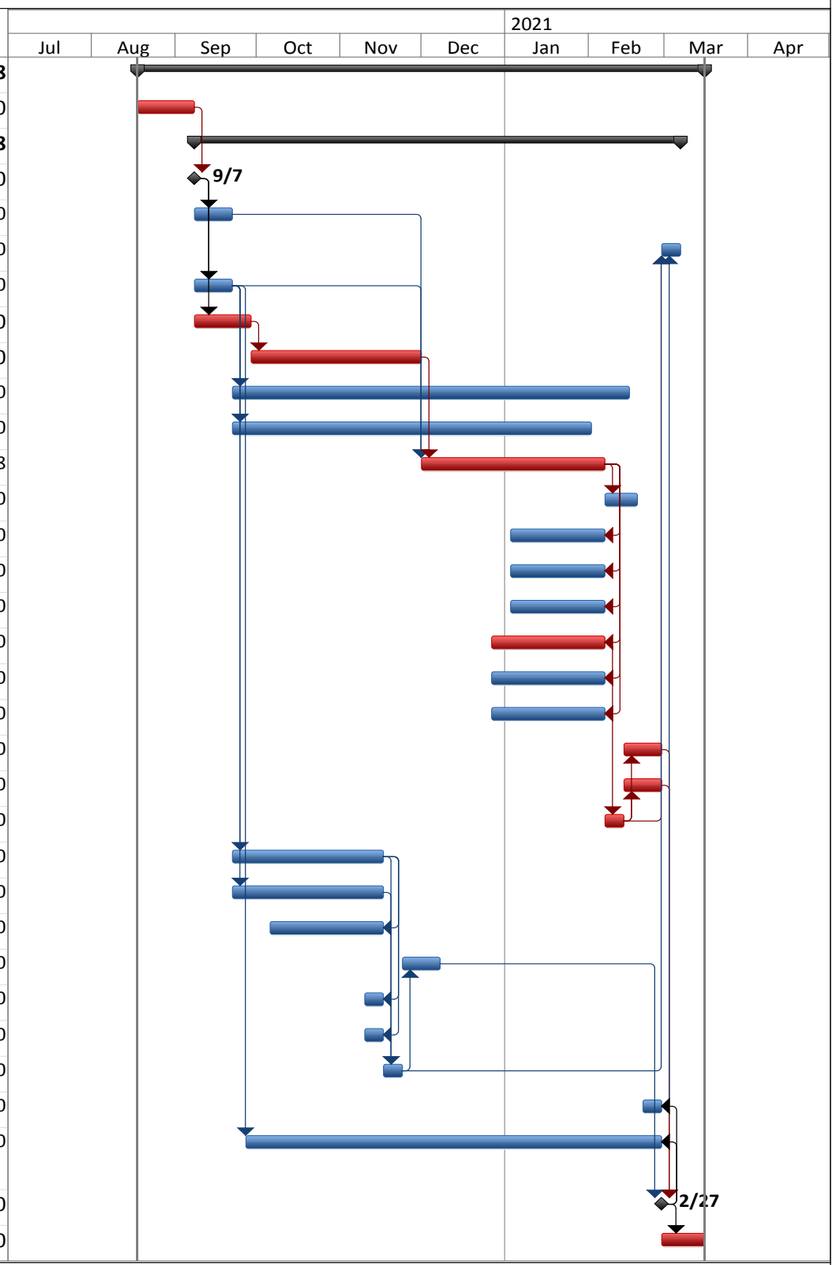
This project is funded in part through a Prop 84 IRWM grant administered by the California Department of Water Resources. Receiving the grand funds is con ngent on the District mee ng all of the grant requirements. Cannon has provided construc on management and grant funding services for numerous projects that received funding from various state and federal agencies, including Prop 84 IRWM funding. We are familiar with the strings that are a ached to these funding sources and have developed record keeping and documenta on procedures necessary to meet all the grant condi ons. This requires having a full- me construc on observer onsite who will create a daily inspec on report including the names and labor categories of workers on the job. We will also provide the District with monthly summary reports, photo documenta on, project schedules, and nal records that can be incorporated into the District's required repor ng to the State. In addi on, we will coordinate closely with the District's labor compliance and environmental monitoring consultants.

Regardless of the funding source, clear and organized documenta on is cri cal for any project's success. Cannon currently has a subscrip on with Procore, a web-based Construc on Management pla orm and we typically use Procore for RFI and submi al management, daily repor ng, and document control. Documents stored on Cannon's Procore pla orm are instantly available to our inspectors and engineers, from any device with internet access. We can provide the District access to our Procore pla orm for this project or can email PDF's of daily reports and other documents if desired. In addi on, our inspector will collect and le material ckets, cer ca ons, safety inspec on reports, and other documenta on from the contractor. All documents will be delivered to the District along with Cannon's project photos taken during the dura on of the project once the project is complete.

Preliminary Project Schedule

Las Virgenes Municpal Water District
Proposal for Construction Mangement Services
Calleguas-LV Interconnection
PRELIMINARY CONSTRUCTION SCHEDULE

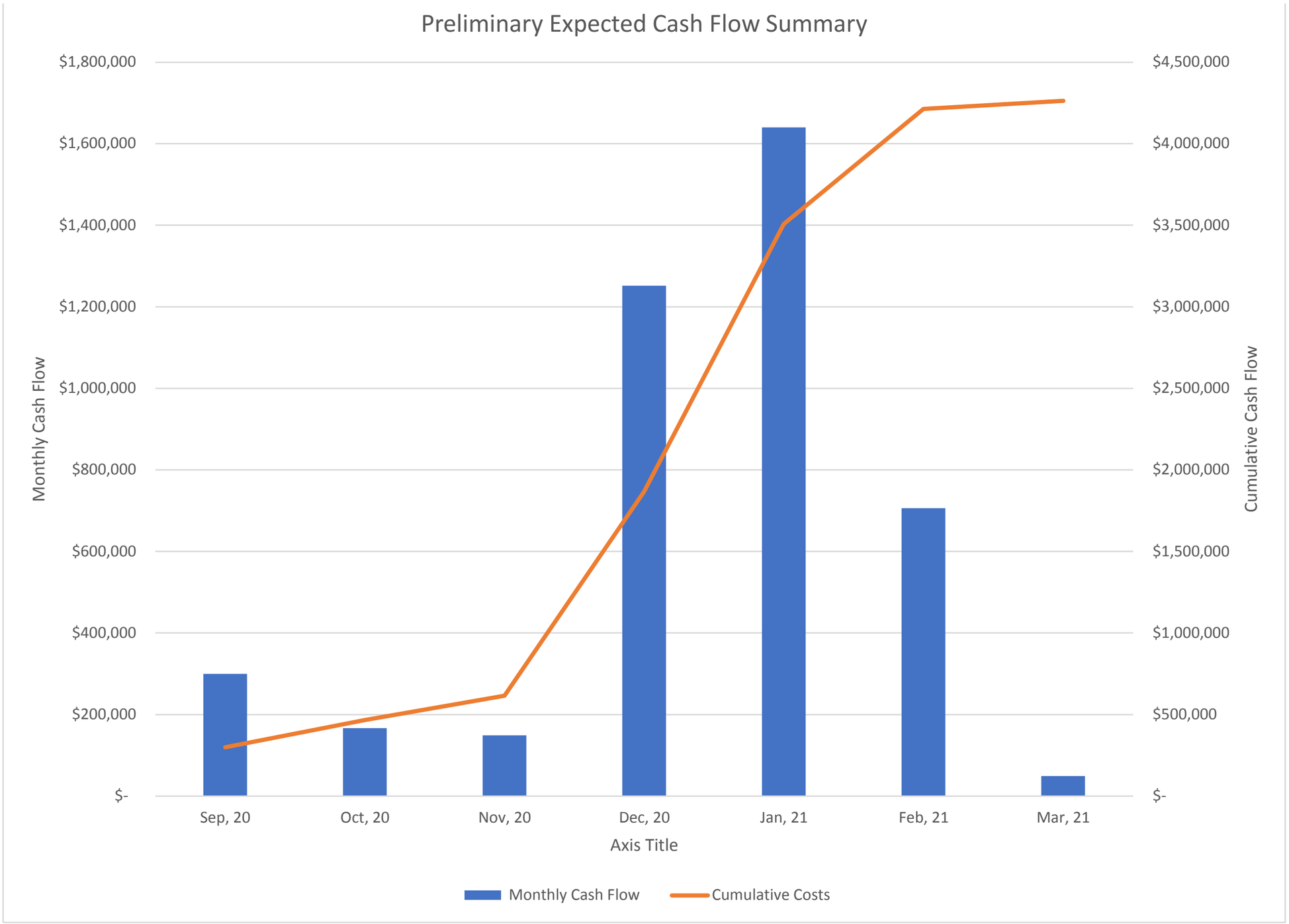
ID	Task Name	Duration	Start	Finish	Predecessors	Cost
1	**LV Interconnection**	**210 days**	**Tue 8/18/20**	**Mon 3/15/21**		**$4,262,613.08**
2	**Pre-Construction**	21 days	Tue 8/18/20	Mon 9/7/20		$0.00
3	**Construction**	**180 days**	**Mon 9/7/20**	**Sat 3/6/21**		**$4,262,613.08**
4	***Issues Notice To Proceed***	0 days	Mon 9/7/20	Mon 9/7/20	2	$0.00
5	1 -Mobilization	14 days	Tue 9/8/20	Mon 9/21/20	4	$172,500.00
6	2 -Demolization at Project completion	7 days	Sun 2/28/21	Sat 3/6/21	22,29,30	$57,500.00
7	3 -Bonds and Insurance	14 days	Tue 9/8/20	Mon 9/21/20	4	$86,250.00
8	***Submittal, Review, and Approval of Critical Lead Time Submittals***	21 days	Tue 9/8/20	Mon 9/28/20	4	$0.00
9	***Manufacturing, Testing, and Delivery of Critical Lead Time Items***	63 days	Tue 9/29/20	Mon 11/30/20	8	$0.00
10	4 - Traffic Control	147 days	Tue 9/22/20	Mon 2/15/21	7	$74,750.00
11	5 - Trenching, Sheeting, and Shoring Safety Protection	133 days	Tue 9/22/20	Mon 2/1/21	7	$86,250.00
12	6 - Installing of 30" CMLC Steel Water Main	68 days	Tue 12/1/20	Sat 2/6/21	5,7,9	$2,519,374.08
13	7 - Connection to Existing Pipe at STA 56+88.95	12 days	Sun 2/7/21	Thu 2/18/21	12	$184,000.00
14	8 - Cathodic Protection	35 days	Sun 1/3/21	Sat 2/6/21	12FF	$74,750.00
15	9 - Air Vacuum Valve and Blow Off Assemblies for 30" Water Main	35 days	Sun 1/3/21	Sat 2/6/21	12FF	$69,000.00
16	10 - Curb and Gutter for Air Vacuum Valve, Blow Off Assemblies, and Water Stample Station	35 days	Sun 1/3/21	Sat 2/6/21	12FF	$8,222.50
17	11 - Water Sample Station for 30" Water Main	42 days	Sun 12/27/20	Sat 2/6/21	12FF	$51,750.00
18	12 - Sidewalk for Air Vacuum Valves and Blow Off Assemblies	42 days	Sun 12/27/20	Sat 2/6/21	12FF	$7,590.00
19	13 - 30" Water Main - Slurry Backfill Between T.O. and STA 7+05	42 days	Sun 12/27/20	Sat 2/6/21	12FF	$379,500.00
20	14 - 30" Water Main - AC Paving w/o 2" Surface Course Between T.O and County Limit	14 days	Sun 2/14/21	Sat 2/27/21	22	$121,440.00
21	15 - 30" Water Main - AC Paving Between County Limit and STA 7+05	14 days	Sun 2/14/21	Sat 2/27/21	22	$18,216.00
22	16 - Flushing, Testing, and Disinfection of 30" Water Main	7 days	Sun 2/7/21	Sat 2/13/21	17	$40,250.00
23	17 - Installation of 6" and 4" PVC Recycled Water Main	56 days	Tue 9/22/20	Mon 11/16/20	7	$140,679.50
24	18 - 4" Fusible HDPE - Horizontal Directional Drill	56 days	Tue 9/22/20	Mon 11/16/20	7	$43,125.00
25	19 - Recycled Water Main - Slurry Backfill	42 days	Tue 10/6/20	Mon 11/16/20	23FF	$37,950.00
26	20 - Recycled Water Main - AC Paving w/o 2" Surface Course	14 days	Tue 11/24/20	Mon 12/7/20	29	$18,216.00
27	21 - Remove and Relocate Existing 4" Meter	7 days	Tue 11/10/20	Mon 11/16/20	23FF	$13,800.00
28	22 - Air Vacuum Valve and Blow Off Assemblies for Recycled Water Main	7 days	Tue 11/10/20	Mon 11/16/20	23FF	$14,950.00
29	23 - Flushing, Testing, and Disinfection of Recylced Water Main	7 days	Tue 11/17/20	Mon 11/23/20	23,24	$4,025.00
30	24 - Contractor Markups of the Construction Plans of Changes to Produce Record Drawings	7 days	Sun 2/21/21	Sat 2/27/21	32FF	$9,775.00
31	25 - Stormwater Pollution Prevention Plan and Environmental Protection Requirements for the Entire Project including Mitigation Measures	154 days	Sun 9/27/20	Sat 2/27/21	7,32FF	$28,750.00
32	***Construction Complete***	0 days	Sat 2/27/21	Sat 2/27/21	20,21,26	$0.00
33	**Post-Construction**	16 days	Sun 2/28/21	Mon 3/15/21	32	$0.00



Preliminary Expected Cash Flow Detail

	Aug '20	Sep '20	Oct '20	Nov '20	Dec '20	Jan '21	Feb '21	Mar '21	Apr '21	Total
LV Interconnection										
Pre-Construction										
Construction										
Issues Notice To Proceed										
1 -Mobilization		$172,500.00								$172,500.00
2 -Demolization at Project completion							$8,214.29	$49,285.71		$57,500.00
3 -Bonds and Insurance		$86,250.00								$86,250.00
Submittal, Review, and Approval of Critical Lead Time Submittals										
Manufacturing, Testing, and Delivery of Critical Lead Time Items										
4 - Traffic Control		$4,576.53	$15,763.61	$15,255.10	$15,763.61	$15,763.61	$7,627.55			$74,750.01
5 - Trenching, Sheeting, and Shoring Safety Protection		$5,836.47	$20,103.38	$19,454.89	$20,103.38	$20,103.38	$648.50			$86,250.00
6 - Installing of 30" CMLC Steel Water Main					$1,148,538.18	$1,148,538.18	$222,297.71			$2,519,374.07
7 - Connection to Existing Pipe at STA 56+88.95							$184,000.00			$184,000.00
8 - Cathodic Protection						$61,935.71	$12,814.29			$74,750.00
9 - Air Vacuum Valve and Blow Off Assemblies for 30" Water Main						$57,171.43	$11,828.57			$69,000.00
10 - Curb and Gutter for Air Vacuum Valve, Blow Off Assemblies, and Water Stample Station						$6,812.93	$1,409.57			$8,222.50
11 - Water Sample Station for 30" Water Main					$6,160.71	$38,196.43	$7,392.86			$51,750.00
12 - Sidewalk for Air Vacuum Valves and Blow Off Assemblies					$903.57	$5,602.14	$1,084.29			$7,590.00
13 - 30" Water Main - Slurry Backfill Between T.O. and STA 7+05					$45,178.57	$280,107.14	$54,214.29			$379,500.00
14 - 30" Water Main - AC Paving w/o 2" Surface Course Between T.O and County Limit							$121,440.00			$121,440.00
15 - 30" Water Main - AC Paving Between County Limit and STA 7+05							$18,216.00			$18,216.00
16 - Flushing, Testing, and Disinfection of 30" Water Main							$40,250.00			$40,250.00
17 - Installation of 6" and 4" PVC Recycled Water Main		$22,609.21	$77,876.15	$40,194.14						$140,679.50
18 - 4" Fusible HDPE - Horizontal Directional Drill		$6,930.80	$23,872.77	$12,321.43						$43,125.00
19 - Recycled Water Main - Slurry Backfill			$23,492.86	$14,457.14						$37,950.00
20 - Recycled Water Main - AC Paving w/o 2" Surface Course				$9,108.00	$9,108.00					$18,216.00
21 - Remove and Relocate Existing 4" Meter				$13,800.00						$13,800.00
22 - Air Vacuum Valve and Blow Off Assemblies for Recycled Water Main				$14,950.00						$14,950.00
23 - Flushing, Testing, and Disinfection of Recylced Water Main				$4,025.00						$4,025.00
24 - Contractor Markups of the Construction Plans of Changes to Produce Record Drawings							$9,775.00			$9,775.00
25 - Stormwater Pollution Prevention Plan and Environmental Protection Requirements for the Entire Project including Mitigation Measures		$746.75	$5,787.34	$5,600.65	$5,787.34	$5,787.34	$5,040.58			$28,750.00
Construction Complete										
Post-Construction										
Total		$299,449.76	$166,896.11	$149,166.35	$1,251,543.36	$1,640,018.29	$706,253.50	$49,285.71		$4,262,613.08

Preliminary Expected Cash Flow Summary



Scope of Work

Cannon intends to provide all Scope of Work Services listed in the Request for Proposal (RFP) Dated July 2020. As part of the scope of work listed in the RFP, Cannon will provide the following services and complete the following tasks:

Phase I. Construc on Services

Task 1.1 Bidding Assistance (Op onal)

Our Resident Engineer (RE) can assist Las Virgenes Municipal Water District (District) and Design Engineer in evalua ng and reviewing bid proposals, subcontractors, suppliers, and requests for subs tute materials and equipment. We will also examine, organize, and inventory the Escrow Bid Documents submitt d by the two lowest bidders if requested by District.

Task 1.2 – Preconstruc on Conference

Upon District award of the construc on contract, and prior to the issuance of the No ce to Proceed, we will conduct a pre-construc on conference and site tour with District sta , City of Westlake Village and any other involved City or County agencies, u li es such as SCE, Gas Co., and others, and the Contractor's team as they prepare to mobilize for the project. The RE and support staff ill review plans and speci ca ons with the Contractor to facilitate the Contractor's understanding of the project. In addi on, we will conduct the following:

- Review of the Contractor's construction schedule or the project, including equipment, labor, and supervision planning;
- Review of appropriate protocols and procedures detailed in the construction docume tation;
- Apprise the Contractor of contract requirements regarding security ma ers such as fences, lightin , and posting of signs; and,
- Prepare the meeting minu es for the pre-construction me ting

Task 1.3 – Preconstruc on Documents

Upon award of the contract, we will review the Contractor's surety bonds, cer cates of insurance, preliminary schedules and other documents required prior to construc on for general compliance with the contract documents. We will thoroughly review the contract documents and will provide constructability input to assist District and the engineer for reviews of submi als and RFI's. We will provide District with recommenda ons based on the ndings of the preconstruc on documents review.

Task 1.4 – Community Outreach Assistance

We will coordinate and communicate with District Public Outreach Staff egarding scheduling, no ca ons, and communica ons. As directed by District, we will also provide any requested assistance in no fying and upda ng a ected residences and businesses of upcoming construc on ac vi es and schedule.

Task 1.5 - Construc on Management Plan

We will use Cannon's construc on standards and procedures manual to develop a Construc on Management Plan speci c for this project. This will include organiza onal structure, QA/QC protocols, and project controls including reviewing and processing of all project documenta on and change order management. We will work closely with District staff o develop a clear understanding of our web-based project documenta on system for quick access to informa on about the project (see Task 2.4).

Phase 2 - Construction Se vices

Task 2.1 – Scheduling

We will review the Contractor's schedule to confirm th t the project is being executed in general accordance with the requirements of the contract documents and monitor the Contractor's compliance with the agreed-upon scheduling requirements.

- Review the Contractor's schedule to determine that it is properly prepared, that the milestones dates meet the overall schedule, and that no major conflicts xist;
- Review progress a ained against the approved schedule to adequately record work-in-place, detect any potential del ys, and review the Contractor's plan for implementation of emedial measures when appropriate, to recover or maintain progress; and,
- In conjunction with Di trict Sta , negoti te schedule adjustments with the Contractor, which may be required due to weather, change orders, or other impacts requiring schedule adjustments.

Task 2.2 – Progress Mee ngs

We will conduct weekly progress meetings with the Co tractor and District representati es. The principal purpose of the project coordination me tings will be o:

- Review progress and quality;
- Review submi al and RFI logs;
- Noti y the a endees of any construction d ficiencies
- Discuss labor, material, and equipment related to upcoming work;
- Address team coordination m ers; and,
- Review maintenance of "as-built" drawings throughout construction

We will chair these mee ngs and conduct each mee ng according to a published agenda and have mee ng summaries prepared and promptly distributed. Mee ng summaries will detail ac on items, the discussions that ensued, and announce the me and date of the next mee ng.

NOTE: With the current COVID pandemic affecting all aspects of normal face to face communications, we anticipate weekly meetings may need to be held onsite, provided the appropriate CDC guidelines can be met, or we can chair meetings using other acceptable methods to the District that may include Microsoft Teams, Zoom, or other video conference platform District deems acceptable.

Task 2.3 – Project File Database

We will provide a web-based, centralized document system using Procore. The development and implementa on of the centralized document system will include:

- Design of the centralized document system to support project file d tabase.
- Procurement of the soft are and licenses for the system. We will administer the project database by establishing access and read/write permissions to District, Contractor, and Design Engineer.
- Documents to be tracked in the system include the following:
  - Project drawings
  - Project speci ca ons
  - Drawings and speci ca on addendums
  - Correspondence
  - Submi als / shop drawings
  - Requests for informa on (RFI)
  - Change orders and change order requests
  - Mee ng agendas and mee ng summaries
  - Daily reports
  - Daily Photos

  - Inspec on reports
  - Tes ng reports
  - Project schedules
  - Progress payments
  - Permits
  - Warran es
- Centralized document system will be web-based.
- District will require the Contractor to use the centralized document system for management and transfer of the project related documenta on and correspondence.

If requested by District Sta , we have the capability to use alternate web-based, centralized document management system including EADocs, Share Point, One Drive, or other cloud-based le sharing systems.

In addi on to maintaining a web based document management system, and to assure that records are organized, complete, and will allow for ease of document retrieval, we will also set up hard copies of all documents in project binders following procedures outlined in Chapter 5 of the Caltrans Construc on Manual. As a matt r of prac ce, we follow methods of record keeping outlined in Caltrans Construc on Manual but will incorporate any district required policies as needed.

Task 2.4 – Submi al Management

We will receive from Contractor the required submi als and O&M manuals and will transmit these to design engineer for review, maintain a log, and manage shop drawings and sample/submi al review process to determine the following:

- Short-term look-ahead schedules contain cri cal submi al dates, and the logs re ect the same.
- Submi als are reviewed in accordance with the contract documents and returned to the Contractor.
- Logs are updated on a regular basis.
- Shop drawings have been reviewed and returned before associated work has begun.
- A copy of submi als is maintained in the le.
- Subsequent to the review, return submi al to the Contractor and forward a copy to District.

Task 2.5 – Construc on Observa on

We will implement observa on guidelines for monitoring the quality of the Contractor's work. We will conduct eld observa on and prepare documenta on (daily reports) of construc on tasks including but not limited to construc on staging, u lity coordina on, process, mechanical, electrical, instrumenta on, tra c access, pedestrian access, drainage, Environmental and NPDES requirements, concrete, grading, pipeline, base, concrete slurry, and surfacing , landscaping and/or irriga on restora on, and erosion control.

Upon witnessing (and discussing with District sta) materials, erec on or installa on process, or levels of quality that do not meet the requirements of the construc on contract documents, Cannon will issue a Non-Conformance Report(s) no fying the Contractor of such devia on and inquire about the Contractor's proposed correc ve ac on. Copies will be forwarded to District.

The Contractor has sole responsibility for compliance with safety requirements on the construc on contract. Cannon's staff ill monitor the Contractor's general compliance with its safety program and advise District of observed de ciencies.

We will obtain and manage delivery slips for checking payment requests and will maintain a photographic log of construc on ac vi es and provide District copies of signi cant photographs. We have assumed full me onsite construc on inspec on and observa on for approximately 5 months of the 6 month (180 calendar day) construc on period with the rst month of construc on reserved for submi al reviews and material procurement.

NOTE: As requested in the RFP, we will track costs and hours for any City of Westlake Village work separately to facilitate District reimbursement and grant compliance. Hours will be detailed and include all labor materials tools and incidentals used in completing the work.

Task 2.6 - Construc on Surveys and Staking Coordina on

We will observe and review Contractor's surveys and staking and coordinate with the Contractor and the Contractors licensed Surveyor to quan fy and compute quan es of work performed by the Contractor if required.

Task 2.7 – Stormwater Pollu on Preven on Plan and Environmental Monitoring Coordina on

We will review the Storm Water Pollu on Preven on Plan (SWPPP) submitt d by the Contractor and will monitor and document the Contractor's general conformance with the SWPPP. Filing of the SWPPP with the State Water Resources Control Board SMARTS System is assumed to be completed by District.

We will Coordinate with the District to ensure the contractor follows all requirements of the nal EIR prepared by Calleguas Municipal Water District (CMWD), including observing and enforcing the EIR mi ga on measures.

Task 2.8 – Request for Informa on (RFI)

We will coordinate e orts regarding change orders and RFIs submitt d by the contractor or requested by District as follows:

- Compile change order suppor ng documenta on, such as inspec on reports, test reports, drawings, sketches, photographs, and other materials as required.
- Review and evaluate the appropriateness of all proposed change orders; advise District as to their e ect on the contract me and cost; and perform independent es mates of the proposed change order work when necessary or when directed by District.
- Nego ate change orders and recommend approval or denial with direc on and nal approval by District.
- Maintain change order and request for informa on (RFI) logs.
- Con rm consultants and engineers respond within the contract me frame.

Task 2.9 – Change Orders

We will inves gate proposed change orders submitt d by the Contractor or requested by District. Change order submi als will include suppor ng records. Our inves ga on will include the impacts on the project schedule and budget and will include a recommenda on for approval or disapproval.
We will:

- Assemble documenta on to include such items as inspec on reports, test reports, drawings, sketches, photographs, and other materials as required.
- Prepare change order es mates consis ng of a cost es mate conforming to District procedures and forms; assess the impacts of the proposed change on the Contractor's schedule and opera ons; and prepare a writt n report summarizing the impact of the proposed change in terms of extra cost, cost savings, schedule, and e ect on Contractor's obliga ons.
- Evaluate the Contractor's price proposals for reasonableness and accuracy of construc on quan es, rates and unit prices, and me and schedule impacts.
- Maintain a change order log to track change order proposals through the review and approval process.

Task 2.10 – Progress Pay Es mates

We will review, for general compliance with contract documents, Contractor's monthly progress payment requests, and construc on contract records and reports speci ed to be submitt d. We will maintain an es mate of overall construc on cost based on Contractor's bid and earned value of work completed and compile recommenda ons for Contractor payment and forward to District.

Task 2.11 – Project Progress Repor ng

We will monitor and report on project progress, cost, and schedule and report to the District. A monthly progress report will be prepared and submitt d to District. We will review, analyze, and comment on the contractor's schedule along with all the monthly schedule updates. In addi on, we will establish a cost control system for monitoring and upda ng the status of the project costs and budget throughout the project.

Task 2.12 – Claims Management

We will maintain a poten al claims log and prepare a separate le for each poten al claim issue. We will evaluate, analyze, and coordinate nego a on to achieve claims and disputed resolu ons in line with District direc ons and nal approvals.

Phase 3 - Post Construc on Services

Task 3.1 – Final Inspec on and Punch List

We will evaluate the substan ally complete facili es to con rm general compliance and/or iden fy discrepancies and de ciencies in the work performed by the Contractor. We will compile a punch list, transmit to the Contractor, and monitor comple on of the punch list items. We will report to District on the comple on of the project, and make recommenda ons regarding project acceptance, reten on of funds, and nal payment to the Contractor.

Task 3.2 – Coordinate Closeout Procedures

We will coordinate closeout procedures. We will monitor the contractor's, the subcontractor's, and other project sta 's progress to nalize all project records, complete and correct record drawings, and other documenta ons required by District.

Task 3.3 – Project Closeout Documents

We will obtain all record (as-built) drawings; O&M materials, contract required documents, lien releases, and writt n warran es from the contractor. We will review and circulate to District for nal acceptance. We will provide District with complete project documenta on for permanent records.

Task 3.4 – Final Report

We will prepare and submit a nal Construc on Report, including the following:

- Opera ons manuals for equipment furnished by the Contractor.
- All tes ng records.

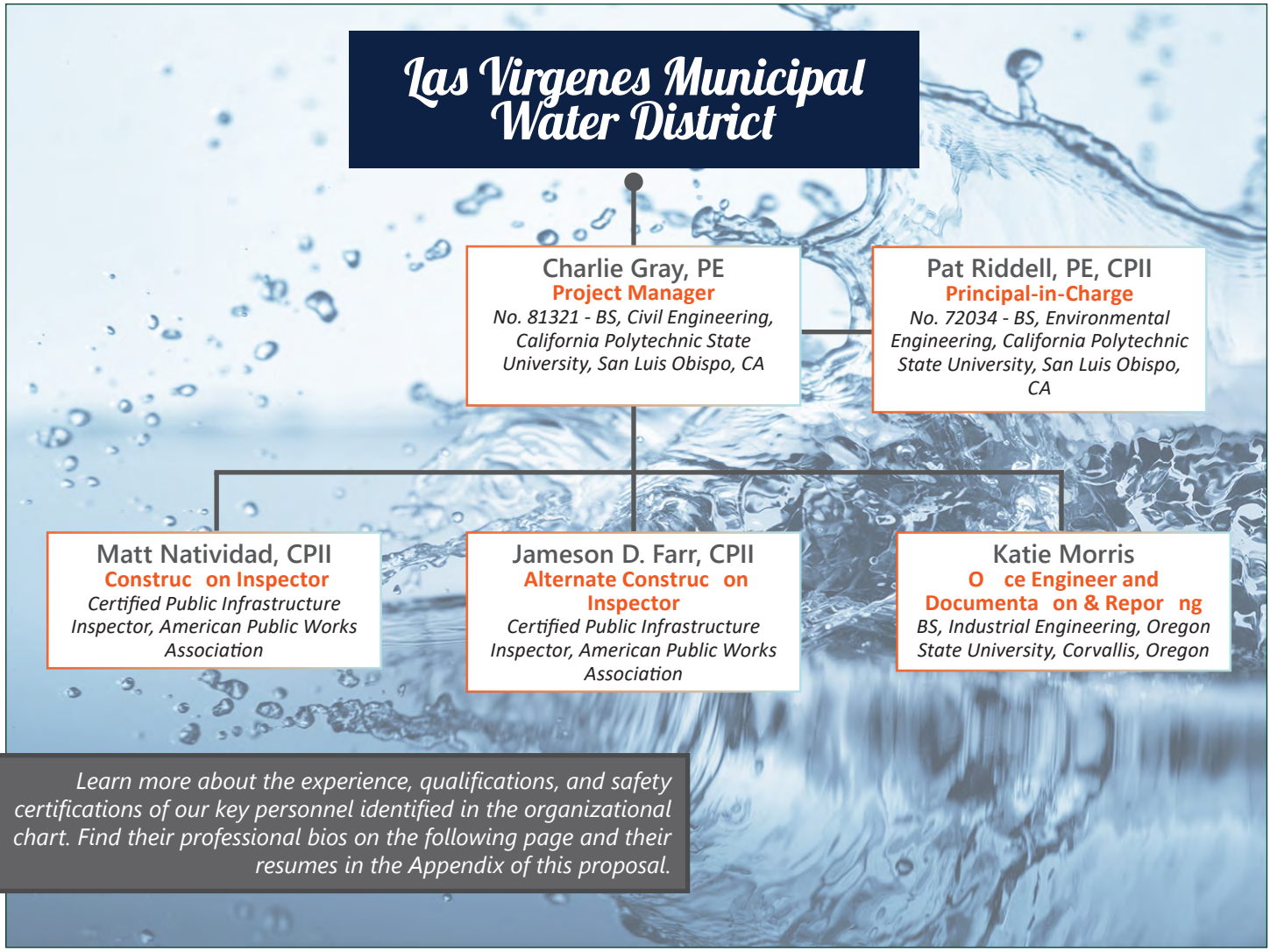
Task 3.5 – Processing of Record Drawings

We will maintain a hard copy le of the construc on drawings at the onsite o ce for the purpose of documen ng eld changes, as-built condi ons and approved changes. A er receiving the Contractor's mark-ups of changes and as-built condi ons we will transmit the nal as-builts to the Design Engineer for processing of record drawings.

Task 3.6 – Claims Assistance (if required)

We will evaluate any contractor nal payment and/or claim. We will nego ate and resolve claim issues. If project disputes cannot be resolved in a manner acceptable to both the District and contractor, we will assist with claims resolu on as outlined below:

- Informa on gathering, " nding of facts"- examine per nent documenta on, eld condi ons, and other related details as necessary to determine the facts of the dispute. We will provide the District a writt n status report which discusses the facts of the dispute and makes recommenda ons as to the contractor's claim.



Learn more about the experience, qualifications, and safety certifications of our key personnel identified in the organizational chart. Find their professional bios on the following page and their resumes in the Appendix of this proposal.

Our team of professionals includes the following:

- Licensed Civil, Structural, Mechanical, Automa on/Control Systems, and Electrical Engineers
- Automa on and Field Service Technicians
- Licensed Land Surveyors and Survey Technicians
- Licensed Landscape Architects
- Caltrans Academy Construc on Managers, Inspectors, and Administrators
- Quali ed Stormwater Prac oners and Developers
- Federal, State, and Local Funding Administrators and Planners

Resource Capacity

Role	Availability
Project Manager	50%
Principal-In-Charge	20%
Construc on Inspector	100%
O ce Engineer	33%

Redundancy and Con nuity of Sta

In addi on to our key project team members in the organiza onal chart, Cannon is home to comprehensive engineering design and construc on support staff ho are ready to commence project work immediately. Members of our assigned project team will not be subs tuted without prior approval of the District.

Key Team Members

Charlie Gray, PE, QSD/P Project Manager

Mr. Gray has developed experience in water resource projects for 10 years. He provides construction management, inspec on, and observation, esign engineering, and has served as Engineer of Record on projects involving water resource infrastructure, including water/wastewater distribution pipelines, treatment facilities, and water storage. s Project Manger, Mr. Gray will con rm the District's goals are met, provide coordina on and technical support to inspectors, manage RFIs, submi als, and CCO's, facilitate mee ngs, facilitate coordina on between various par es. Mr. Gray played a major role in many of the referenced projects listed on pages 15-17.

Pat Riddell, PE, CPII, QSD/P Principal-in-Charge

Pat Riddell, PE, CPII brings more than 20 years of construc on engineering and management experience. He will serve as the Principal-in-Charge and authorized representa ve. He is a dedicated team player who priori zes du es in order to obtain maximum produc on while always maintaining an honest, dependable, and safety-minded approach to his work. In addi on, he has established accurate recordkeeping, e ec ve project and budget management, and reliable schedule and cost control.

Matt Natividad, CPII Construction Inspector

As Construction Inspec or, Mr. Natividad p ovides construction inspection s vices on projects ranging from pipelines, pump stations, o complex, large-scale traffic im ovements. His responsibilities typi ally include monitoring work site safety, inspecting onstruction ork, coordinating and managing l yout work in the field, establishing optimum engineering p actices during onstruction, ompleting daily eports, conducting p e-construction me tings and egular safety meetings, p oviding civil engineering oversight and management, and keeping track of labor and materials. Mr. Natividad typi ally coordinates daily with agency sta , contractor's foreman or superintendent, and with the Engineer of Record and encroachment permit inspector as needed.

Jameson Farr, CPII Alternate Construction Inspector

As a Construction Inspec or, Mr. Farr serves as the client's onsite representati e. He provides coordination and oversight of the contractor to ensure plans and specifi ations a e met and schedule and cost are maintained. Mr. Farr's responsibilities include per orming professional engineering activities such as: eparation of plans, specifi ations, and special p ovisions; ensuring projects meet all safety aspects; reviewing projects for errors and/or discrepancies; negoti ting and impleme ting orrecti e actions; and per orming engineering calculations. Other duties ompose of performing project/program management activities: planning and scheduling ojects, estim ting and tracking costs, monitoring progress, keeping daily logs and reports; ensuring quality control, preparing change orders, interpret, communicate and verify that projects are in compliance with plans, as well as specifi ations and special p ovisions.

Katie Morris Office Engineer / Project Coordinator

Ms. Morris brings 15 years of experience in Project Controls and Industrial Engineering, including Scheduling, Cost Engineering, Project Coordination, and Lean Six Sigma se vices for projects in the Oil & Gas Industry, Electrical Utilities, ood Manufacturing, and Retail Distribution. Ms. Morris p ovides support and coordination orts across a multi-discipline eam and multiple takeholders. She is responsible for providing project document control for plans and specifi ations, p oject documentation, submi als, RFI's, meeting a endas and minutes, project closeout documents, project contacts, daily reports, and project correspondence.

Construction Management Plan Checklist

We are prepared to provide our clients services for each phase of their project, from bid support through preconstruction preparations, onstruction, and p oject close-out. As the fi st order of work on a project, we develop a unique Construction Management Plan which is customized to the type of work, the plans and specifi ations, and ontractual requirements of the project. Below is our Construction Mana ement Plan Checklist. So that we can assign suffici t staff or your projects, this checklist will be used in collaboration with the Di trict during scoping meetings o determine which specific asks are needed for each project.

This checklist forms the basis of Cannon's approach. This is the framework in which we monitor and enforce contract compliance, and in which we document and record the thorough inspections, m terials sampling and testin , and other Quality Assurance procedures required by the contract for the successful completion of a p oject.

Construction Management Plan Checklist

Pre-Construction Conference:

1. City staff will schedule the meeting; invite contractor, consultant, affected City staff, utility companies and regulating agencies. ☐
2. The pre-construction meeting will be conducted by consultant staff and held in a City building. City staff assigned to the project will attend to answer and unusual questions. ☐
3. The CM firm conducting the meeting must understand that the pre-construction conference sets the tone for the project. It is the contractor's first impression of the City/Consultant staff and how we operate. Be on time, professional, organized, knowledgeable of the project, convey any special requirements or concerns. ☐
   a. Provide a sign in sheet for all attendees. ☐
   b. Keep meeting minutes that show subjects discussed, direction given and response received. ☐
   c. Document items submitted by the contractor such as: the emergency response sheet, schedule, submittals and other items of importance. ☐
   d. Confirm the authority and responsibility of all parties involved. ☐
   e. Verify the start date of construction. ☐
   f. Address the concerns and needs of affected utility companies. ☐
   g. Discuss unusual working conditions and permit requirements. ☐
   h. Verify that the contractor will give proper notification to the residents and businesses of the start date of construction and what kind of work is being performed. ☐

After Pre-Construction Conference:

1. Review progress schedules submitted by the contractor and accept when satisfactory. ☐
2. Log and review submittals and ship drawings as needed. Route submittals as needed for project engineer/architect's approval. Do not exceed the turnaround time. ☐
3. Document any approved changes to the scheduled start date with a change order. ☐
4. Disburse pre-construction meeting minutes. ☐

During Construction:

1. Inspect and perform construction management services to ensure the project is built as designed and specified. ☐
2. Log and route RFIs. ☐
3. Prepare and route Draft Change Orders as required. ☐
4. Prepare correspondence necessary to maintain control over the construction contract. ☐
5. Coordinate materials testing for the project. ☐
6. Notify City contact at any point in the project when a dispute arises, an unknown condition is discovered or at any time the contractor believed extra work/change order work is warranted. ☐

We have included a portion of our Construction Management Plan Checklist to the left. If requested, we can provide the complete checklist to the District.

5 References and Relevant Project Experience

Well No. 2 and Well No. 16 Inspection Services, Crescenta Valley Water District, La Crescenta, California

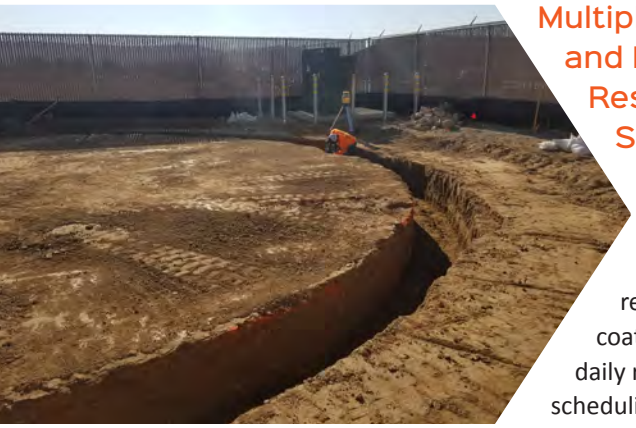
This pair of projects consisted of equipping two wells originally constructed decades ago. They included installa on of a Biological Nitrate Removal Treatment Plant, opera ons building, new electrical service from Glendale Water & Power, motor control center (MCC), well discharge line, and site and u lity improvements. CVWD selected Cannon to provide construc on management and inspec on of the installa on of both wells. The scope of work included weekly progress mee ng with agendas and minutes; coordina on with CVWD, the contractor, design engineer, and City of Glendale; keeping complete and organized construc on les using Procore; daily site observa on/inspec on with daily reports; management of RFI and submi al reviews, exhibits for design changes as needed based on eld condi ons and CVWD's requested changes, coordina on of material tes ng; and management of contract change orders. Cannon also provided engineering and design services for Well No. 16. Well No. 16 was funded in part through a grant to the Greater Los Angeles County (GLAC) Region of the Integrated Regional Water Management (IRWM) Group for Proposi on 84 Drought Relief.

Project Owner/Reference: David Gould, PE, District Engineer, Crescenta Valley Water District / 818.248.3925 / dgould@cvwd.com

Magic Mountain Pipeline Phases 4, 5 & 6a; Vista Canyon Pipeline Project, Santa Clarita Valley Water Agency, Santa Clarita, California

Cannon was selected to provide Construc on Management and Inspec on/Tes ng services for several SCVWA pipeline projects. Project 6a includes installa on of over 3,000 linear feet of a 42-inch diameter welded steel pipeline, three large valve vaults, and two precast manway structures. Cannon's scope of work included inspec on of the pipeline and vault/structure installa on, coordina on with the SCVWA regarding changes or non-compliance, submi al, RFI, and payment review, review of as-built drawings, and nal punch list assistance.

Elizabeth Sobzcak, Project Manager, Santa Clarita Valley Water Agency / 661.297.1600 / esobczak@scvwa.org



Multiple Projects for Golden State Water Company, Santa Maria and Los Osos Customer Service Area, California. Pinewood Reservoir & Booster Pump Station, Groves Booster Pump Station, Doris Lane Water Main Installation

Golden State Water Company has selected Cannon to provide construction inspectio services for several projects in their Santa Maria and Los Osos Customer Service Areas. Projects included a new welded steel tank, two new pump stations, n w or replaced water mains within County roads, a cathodic protection ystem, specialty coatings, and electri al improvements. Cannon provided construction inspection an daily reportin , coordinated with contractor and GSWC staff egarding field onditions, scheduling, and non-compliance issues, coordinated materials testing and specialty inspections, assi ted with submi al and RFI reviews, and prepared final punch li ts.

Project Reference: Megan Panofsky, Project Engineer, Golden State Water Company / 805.349.7407 /megan.panofsky@gswater.com

Shell Beach Road Streetscape Project, Pismo Beach, California

Cannon provided construc on management, inspec on, material tes ng, and administra ve services for this challenging $10M+ construc on project. The project included undergrounding overhead electrical line, replacing a 12-inch water main, and various other underground and surface improvements on the main thoroughfare of the Shell Beach community. This project presented several unique challenges. First, a signi cant por on of the work (approx. 64%) occurred below the surface in the replacement of underground u li es and undergrounding of exis ng overhead u lity lines. However, Shell Beach Road already contained a hodgepodge of underground u li es, requiring many eld changes. Cannon's construc on management team worked closely with eld representa ves from all local u lity providers to surmount these complexi es and to facilitate the overall success of the underground work. Second, the project greatly impacted the main business district and arterial of the ght-knit and vocal Shell Beach community and was located adjacent to the Shell Beach Elementary School, requiring working hour restric ons during school drop off a d pickup mes and unique tra c control to allow business access and parking. Lastly, the project involved Horizontal Direc onal Drilling (HDD) that crossed Caltrans right-of-way. Cannon facilitated conformance to Caltrans Encroachment Permit requirements and road se lement monitoring.

Project Owner/Reference: Eric Eldridge, PE, Senior Engineer, City of Pismo Beach / 805.773.4657 /eeldridge@pismobeach.org

West Main Tank, City of Paso Robles, California

In an e ort to con nue improvement to its water system, the City of Paso Robles (City) is currently replacing the exis ng 21st Street Reservoir—an unconven onally-shaped earthen reservoir lined with both gunite and HDPE. Constructed in 1925, and having reached the end of its useful life, the exis ng reservoir was covered with a wood roof and trust system supported by a concrete stem wall at the perimeter of the tank and interior columns.

The City selected Cannon to provide construc on management and inspec on for the replacement of this reservoir with a new 4.0 MG par ally buried pre-stressed concrete tank (AWWA D110 Type I). The facility was renamed the Main West Tank—a descrip on that portrays its func on as the main facility providing the required storage for the City's Main West pressure zone. The construc on work of the tank included appurtenances, such as ladders, hatches, railing, air vent, safety equipment, and various SCADA and electrical equipment; and various other items for a complete and func oning potable water storage system. The project also included 1,700 linear feet of new or replaced 18-inch diameter duc le iron and welded steel waterline to connect the tank to the City's distribu on system. Cannon provided construc on management, inspec on, and material tes ng services for the project.

Project Owner/Reference: Merceditas Esperanza, Capital Projects Engineer, City of Paso Robles / 805.237.3861 /ditas@prcity.com

Airport Area Infrastructure Improvements, Paso Robles, California

The City of Paso Robles has seen signi cant development over past years near the Municipal Airport area. To support this growth, the City iden ed replacement of exis ng water and sewer mains, lift ta on, and various linear infrastructure improvements. The City hired Cannon to provide construc on management and implementa on of the project. Cannon's scope included construc on management, construc on observa on, and materials engineering, sampling and tes ng.

Project Owner/Reference: Merceditas Esperanza, Capital Projects Engineer, City of Paso Robles / 805.237.3861 /ditas@prcity.com

CSA23 Emergency Intertie Improvements, Santa Margarita, California

The County of San Luis Obispo constructed an approximately 3 mile long inter e between the County's service area in Santa Margarita, Atascadero Mutual Water Company (AMWC), and Garden Farms Community Services District (GFCSD) in order to provide emergency water from AMWC to communi es relying on groundwater. The project helped alleviate drought impacts and assisted local public agencies in mee ng long-term water supply needs, protec ng water quality, and augmen ng/restoring environmental condi ons. The inter e pipeline was located within or immediately adjacent to El Camino Real and several known Na ve American cultural sites. Construc on impacted both tra c and bike lanes of this arterial street, which is the only connec on between the three communi es other than Hwy. 101. As the Engineer of Record, Mr. Gray assisted the County with contract bidding assistance, and construc on support services, which included coordina on with various agencies and departments, suppor ng the construc on management team and nal inspec on/cer ca on. The project was par ally funded through a USDA rural development grant and a California Department of Water Resources grant.

Project Owner/Reference: Jeff ee, PE, Project Manager/Civil Engineer, County of San Luis Obispo/ 805.781.5252 / jlee@co.slo.ca.us

Construction Management & inspection for Plant 209, Suburban Water Systems, California

Cannon provided Construc on Management for the demoli on of an exis ng pump building with associated pumping equipment and piping; construc on of a new pump building with a conference room, o ce, and restroom; installa on of three new pumps and motors including suc on header piping, discharge header piping, and other associated piping; electrical upgrades including a new SCE service, MCC, power distribu on, and a diesel emergency back-up power system complete with an automa c transfer switch; instrumenta on upgrades including a new SCADA panel; landscaping and irriga on improvements; and site improvements. The scope of work also included coordina on with the City of Whi er for obtaining the permits and connec on of the on-site sewer to the City's sewer system. Cannon provided full- me on-site observa on and inspec on, daily reports, weekly progress mee ngs, agency coordina on, Cannon's design engineers, geotech tes ng rm and specialty tes ng rms, as well as coordina on of RFIs and submi als. We used Procore as the so ware for organizing the project les and communica on.

Project Owner/Reference: Jose Lopez, Engineering Director, Suburban Water Systems /626.543.2500 /jlopez@swwc.com

Various Traffic Signal Projects: Sherwood Road, Paso Robles; Five Cities Drive, Pismo Beach; and Depot Street & Hwy 166, Santa Maria, California

Cannon has provided construc on management and inspec on services for mul ple tra c signal replacement projects. The three projects listed above included replacement of tra c signal detector loops. Cannon is familiar with the challenges and impacts of disturbing busy signalized intersec ons.

Las Virgenes Municipal Water District
Calleguas-Las Virgenes Interconnection Project Construction Management and Inspection Services

Cannon
11900 West Olympic Blvd, Ste 530
Los Angeles, CA 90064
805.544.7407

Staffing Plan and Cost Estimate

July 28th, 2020

Phase	Role	Name	Rate	2020 Aug	2020 Sep	2020 Oct	2020 Nov	2020 Dec	2021 Jan	2021 Feb	2021 Mar	2021 Apr	2021 May	2021 Jun	2021 Jul	Est. Hours	Estimated Cost
Pre-Construction																	
	Principal Construction Engineer	Patrick Riddell, PE	$185.00		16											16	$2,960.00
	Resident Engineer	Charlie Gray, PE	$155.00		48											48	$7,440.00
	Office Engineer	Katie Morris	$110.00		40											40	$4,400.00
	Inspector	Matt Natividad CPII/Jameson Farr CPII	$140.00		40											40	$5,600.00
Construction																	
	Principal Construction Engineer	Patrick Riddell, PE	$185.00			32	16	32	16	24						120	$22,200.00
	Resident Engineer	Charlie Gray, PE	$155.00			84	76	80	76	76						392	$60,760.00
	Assistant Resident Engineer/Office Engineer	Katie Morris	$110.00			56	50	54	50	50						260	$28,600.00
	Inspector	Matt Natividad CPII/Jameson Farr CPII	$140.00			168	152	160	152	152						784	$109,760.00
Post-Construction																	
	Principal Construction Engineer	Patrick Riddell, PE	$185.00								16					16	$2,960.00
	Resident Engineer	Charlie Gray, PE	$155.00								52					52	$8,060.00
	Assistant Resident Engineer/Office Engineer	Katie Morris	$110.00								40					40	$4,400.00
	Inspector	Matt Natividad CPII/Jameson Farr CPII	$140.00								40					40	$5,600.00
			Total Estimated Hours		144	340	294	326	294	302	148					1848	
															Total Estimated Cost of Labor		**$262,740.00**

Direct Expenses			
	Sub Consultant Company Name	Basis	Estimated Cost
	Reimbursable	Misc.reimbersibles, field materials, photo copies, software	$ 3,250.00
		Total Estimated Direct Expenses	**$3,250.00**

Total Estimated Cost of CM Services	**$265,990.00**

Appendix

Required Materials

- Resumes
- Professional Certifications
- Liability Insurance

Resumes

Charlie Gray, PE Project Manager

Professional Registratio

- Registered Civil Engineer, California, No. 81321

Educatio

- Bachelor of Science, Civil Engineering, California Polytechnic State University, San Luis Obispo, California

Certi atio

- OSHA Con ned Space Entry
- First Aid/CPR C**er fi d**

Professional Affil tion

- American Society of Civil Engineers

As a Project Manager and Resident Engineer, Mr. Gray manages various construction project for public agencies, coordinates or self-performs inspection, finds solution o problems that arrise during construction, eviews RFI's and submi als, and coordinates with the design team and agency sta . Previously, Mr. Gray has worked for a heavy civil general engineering contractor, and spent several years designing public facilities, which gives him a unique perspecti e as a Construction Mana er and Resident Engineer.

West Main Tank, Paso Robles, California: The City selected Cannon to provide construction mana ement and inspection or the replacement of the existing 21 t Street Reservoir—an unconventionall -shaped earthen reservoir lined with both gunite and HDPE with a new 4.0 MG partially buried p e-stressed concrete tank (AWWA D110 Type I). The facility was renamed the Main West Tank. The construction ork of the tank included appurtenances, such as ladders, hatches, railing, air vent, safety equipment, and various SCADA and electrical equipment; and various other items for a complete and functioning po able water storage system. Mr. Gray served as Project Manager and Resident Engineer and provides daily construction inspection, an coordinated with Earth Systems and ATS for special inspections and m terial testing on this project.

Pinewood Plant Reservoir and Booster Pump Station, Golden S ate Water Company, Tanglewood, California: Cannon provided construction inspection, onstruction coordination, submi al, and RFI review services for the installation of a 0.238 million gallon steel reservoir (42' D x 30' H), booster pump station, enerator, and sound-attuning ence in Santa Barbara County. The reservoir included subdrain system, steel stairway, and various hatches, cleanouts, and piping a achments. The steel reservoir is protected by a cathodic protection ystem consisting of (6) 13' long magnesium rod anodes suspended from the tank roof. As Cannon's Project Manager and Lead Construction Inspec or for this project, Charlie reviewed contractor submi als and RFI's, a ended pre-construction me tin , and provided coordination with the contractor and GSWC personnel. He provided regular on-site inspection of the ork and incorporated materials, including footin , earthwork, tank erection, pump in tallation, athodic protection, ab ve and below ground piping, generator, and sound-attuning ence installation. Charlie oordinated with a subconsultant for special welding and coating inspection

Additional Project Experience Summary

Mr. Gray has served as Assistant Resident Engineer, Engineer of Record, Construction Inspec or, Construction O server, or Project Engineer on the following projects:

- Design and Construc on Management for Golf Course Well No. 7, Ventura, California
- Design and Construc on Management for Sulphur Springs Road Waterline, Paso Robles, California

Pat Riddell, PE, CPII, QSD/P Principal-in-Charge

Professional Registratio

- Registered Civil Engineer, California, No. 72034
- Cer ed Public Infrastructure Inspector, American Public Works Associa on
- Excava on Safety Training for Competent Persons (CPT), United Academy, ID: 1544359
- Quali ed SWPPP Developer/ Prac oner, California, No. C72034

Educatio

- Bachelor of Science, Environmental Engineering, California Polytechnic State University, San Luis Obispo, California
- Caltrans Resident Engineer Academy

Training

- First Aid/CPR Cer ed

Professional Affil tion

- American Society of Civil Engineers
- American Public Works Associa on

As Principal-in-Charge, Mr. Riddell makes decisions and recommendations ecognized as authoritati e that have a far-raching impact on Cannon's team. As a seasoned Resident Engineer and Construction Mana er, Mr. Riddell can negoti te criti al and controversial issues. In addition, M . Riddell exhibits a superior level of creativit , foresight, and judgement in planning, organizing, and guiding project teams. Recognized as an expert in Construction Mana ement, he applies his extensive knowledge and experience to complex projects and assumes responsibility for the department of construction mana ement at Cannon.

Pismo Streetscape-Shell Beach Road, Pismo Beach, California: As a major component of the City's overall Complete Street Plan, the well-traveled corridor lacked multi-modal transportation or connections o key destin tions. The City etained Cannon to provide construction mana ement, inspection, m terials testin , and administrati e services. This project presented unique challenges in that a signifi ant portion of the ork (approximately 64%) occurred below the surface, in the replacement of underground utilities ater and storm drain) and the undergrounding of existing verhead utility lines (PG&E, AT&T, and Charter). Cannon's construction mana ement team worked closely with local utility p oviders and in cooperation with Cultu al Miti ation Measu e CUL/MM-2. Because this project involved Horizontal Directional Drilling (HDD) th t crossed Caltrans right-of-way, Cannon facilitated conformance to their Encroachment Permit requirements and road settleme t monitoring. Mr. Riddell was responsible for providing oversight of preconstruction, onstruction, and po t-construction phases of this project. He was responsible for verifying improvement construction in ac ordance with the plans and specifi ations and epresenting the City t the construction si e, coordinating with the Cit , Contractor, and the Design Team.

Airport Area Infrastructure Improvements, Paso Robles, California: The City of Paso Robles has seen signifi ant development over past years near the Municipal Airport area. To support this growth, the City identified eplacement of existing ater and sewer mains, lift tation, and arious linear infrastructure improvements. The City hired Cannon to provide construction mana ement and implementation of the p oject. Cannon's scope included construction mana ement, construction o servation, and materials engineering, sampling and testing Mr. Riddell currently serves as Principal-in-Charge.

Additional Project Experience Summary

Mr. Riddell has served as Project Engineer, Manager, QA/QC Engineer, or Construction Mana er/Resident Engineer on the following projects:

- Construc on Inspec on for Nacimiento Pipeline Turnout, County of San Luis Obispo, Santa Margarita, California
- Construc on Management, Inspec on, and Design for Well No. 16, Crescenta Valley Water District, Montrose, California
- CSA23 Emergency Inter e Improvements, Santa Margarita, California
- Construc on Management for Five Ci es Drive Turn Signal Project, Pismo Beach, California
- West Main Tank, Paso Robles, California

Matt Natividad, CPII Construction Inspector

Professional Registratio

- Cer ed Public Infrastructure Inspector, American Public Works Associa on
- Cer ed Concrete Tes ng Inspector
- Earthwork Inspec on Inspector
- Quali ed SWPP Developer (QSD

Educatio

- Bachelor of Science, Civil Engineering, Western Mindanao State University, Zamboanga City, Philippines

Training

- First Aid/CPR Cer ed

As Construction Inspec or, Mr. Natividad p ovides construction inspection s vices on projects ranging from pipelines, pump stations, o complex, large-scale traffi improvements. His responsibilities typi ally include monitoring work site safety, inspecting onstruction ork, coordinating and managing l yout work in the field, establishing optimum engineering p actices during onstruction, ompleting daily reports, conducting p e-construction me tings and egular safety meetings, p oviding civil engineering oversight and management, and keeping track of labor and materials. Mr. Natividad typi ally coordinates daily with agency sta , contractor's foreman or superintendent, and with the Engineer of Record and encroachment permit inspector as needed.

Airport Area Infrastructure Improvements, Paso Robles, California: The City of Paso Robles has seen signifi ant development over past years near the Municipal Airport area. To support this growth, the City identified eplacement of existing s wer mains, lift tation, and arious linear infrastructure improvements. The City hired Cannon to provide construction mana ement and implementation of the p oject. Cannon's scope included construction mana ement, construction o servation, and m terials engineering, sampling and testing

Construction Admini tration and Inspection S vices for North Depot & Highway 166 Improvement Project, Santa Maria, California: This project involved realigning the a major City intersection o improve vehicular and pedestrian safety, including traffi signal modifi ation o provide protected left turns. Cannon as selected to provide construction mana ement services for this project. Specific p oject tasks included new sidewalk, curb and gu er, curb ramps, bulbouts, and medians/pedestrian islands; HMA paving and slurry seal; new striping and signage; criti al traffic ontrol as stop control on the intersection as altered; three new field fi ed DIs; and modified triping and signage configu ation. Cannon mai tained complete and organized construction files a required for Federal Aid projects and also reviewed traffic ontrol plans and regularly monitored traffic ontrol; coordinated material testing or compaction and CIDH pile foundations; p ovided field erifi ation or ADA compliance.

Additional Project Experience Summary

Mr. Natividad has se ved as Construction Inspec or on the following projects:

- Construc on Management, Inspec on, and Design for Wastewater Treatment Plant, McFarland, California
- Construc on Management for U.S. Highway 101 and State Route 46 East Improvements, Paso Robles, California
- Construc on Management for Five Ci es Drive Turn Signal Project, Pismo Beach, California
- Construc on Management, Inspec on, and Design for Leanna Drive Waterline Creek Crossing, Arroyo Grande, California
- Construc on Management, Inspec on, and Design for Sulphur Springs Road Waterline, Paso Robles, California

Jameson D. Farr, CPII Construction Inspector

Certi ation

- Cer ed Public Infrastructure Inspector, American Public Works Associa on
- OSHA- Cer ed Con ned Space Entry, No. 130815
- American Concrete Ins tute No. 01383421
- Nuclear Gauge Operator, No. 17943
- Con ned Space
- California Test Method (CTM) Cer ca ons: 105, 106, 125, 125AGG, 125PCC, 125AC, 201, 202, 206, 207, 216, 217, 226, 227, 231, 234, 301, 370, 375, 382, 504, 518, 533, 539, 540, 556, 557
- First Aid/CPR

Mr. Farr brings over fi e years of experience in materials testing and onstruction inspection. His xperience includes testing and onstruction inspection or FEMA flood repair, roadway and shoulder improvements, guardrail installation and pede trian paths. He has worked extensively for the County of Kern and is well-versed in the Caltrans and Green Book for Public Works specifi ations.

Magic Mountain Pipeline Phase 6A Project, Santa Clarita Valley Water Agency, Santa Clarita, California: Cannon was selected to provide inspection se vices for the Magic Mountain Pipeline project. Phase 6A includes a 42-inch diameter pipeline approximately 2,400 feet long, a 24-inch interconnection pipeline app oximately 250 feet long and three valve vaults. Phase 5 included a 42-inch diameter pipeline approximately 2,900 feet long. Construction Inspection ope of work included inspection of arious sizes of ductile i on pipe ranging from 8" to 30", including all accessories (valves, seals, etc), as well as the vault construction omprised of concrete and rebar. Mr. Farr serves as Construction Inspec or for this Project.

Santa Clarita Valley Water Agency, Magic Mountain Pipeline Phase 4 & 5 Project - Inspection Se vices, Santa Clarita, California: Cannon was selected to provide inspection se vices for the Magic Mountain Pipeline project. Phase 4 include a 42-inch diameter pipeline approximately 2,400 feet long, a 24-inch interconnection pipeline approximately 250 feet long and three valve vaults. Phase 5 included a 42-inch diameter pipeline approximately 2,900 feet long. Mr. Farr served as Construction Coordinator for this project.

Additional Project Experience Summary

Mr. Farr has provided Construction O servation and or Inspection the ollowing project:

- Modjeska Park Underground Stormwater Deten on and in ltra on System, Anaheim, California
- Construc on Management for Vista Canyon Recycled Water Main Extension, Santa Clarita Valley Water Agency, Santa Clarita, California
- Construc on Coordina on, San Ardo, California

Katie Morris Office Engineer / Document & Reporting

Educatio

- Bachelor of Science, Industrial Engineering, Oregon State University, Corvallis, Oregon

Certi atio

- Six Sigma Black Belt Cer ca on

Soft are Skills

- MS Project
- SPS Project Management
- Primavera P6

Ms. Morris brings 15 years of experience in Project Controls and Industrial Engineering, including Scheduling, Cost Engineering, Project Coordination, and Lean Six Sigma services for projects in the Oil & Gas Industry, Electrical Utilities, ood Manufacturing, and Retail Distribution. Ms. Morris p ovides support and coordination orts across a multi-discipline eam and multiple takeholders. She is responsible for providing project document control for plans and specifi ations, p oject documentation, submi als, RFI's, meeting a endas and minutes, project closeout documents, project contacts, daily reports, and project correspondence.

Construction Inspection or Groves Booster Pump Station, O cutt, Cali ornia: Golden State Water Company (GSWC) selected Cannon to provide construction inspectio services for the the Greenfield Boo ter Pump Station in O cutt, Cali ornia (Santa Barbara County). This project includes civil/site work of the new facility site; the construction of a boo ter pump station; in tallation of enerator; and instrumentation and SCADA commissioning. Cannon's scope of work involved professional services in one phase, including a endance at the pre-construction onference, review of contractor submi als, support of GSWC on contractor requests for information; coordination with the ontractor regarding ongoing construction schedule; and inspection se vices for onsite work as proposed in the plans and specifi ations, including inspection of oundation, ank, coatings, athodic protection ystem, and safety and structural modifi ations, boo ter pump station, and enerator install by qualified pe sonnel. Ms. Morris provided Office Engineering and Docum t Control Services.

Well No. 2 Inspection Se vices, La Crescenta, California: CVWD selected Cannon to provide construction mana ement of the installation of the necessa y facilities for Well No. 2. The scope of work included weekly progress meetings with a endas and minutes; coordination with CVW , the contractor, design engineer, and City of Glendale; keeping complete and organized construction files using oCore; daily site observation/inspection with daily eports; review and response to RFIs; exhibits for design changes as needed based on field onditions and CVW 's requested changes or additions; oordination of m terial testing; mana ement of contract change orders (including review and analysis before presenting o CVWD). Ms. Morris provided Offic Engineering and Document Control Services.

Additional Project Experience Summary

Ms. Morris has served as Office Engineer or Docum t Control on the following projects:

- Construc on Management for Train Sta on Expansion Project, Grover Beach, California
- Construc on Management for Airport Pipeline Infrastructure, Paso Robles, California
- Construc on Management for Sherwood Rd - Creston to Fontana Street Improvements, Paso Robles, California
- Construc on Inspec on Nacimiento Pipeline Turnout, San Luis Obispo County, California
- Engineering Design for Suburban Water Systems Plant 209, Covina, California

Professional Registrations/Certifications

The American Public Works Association

has conferred upon

Patrick Riddell, CPII, PE

the designation of Certified Public Infrastructure Inspector
(CPII)

Date of Certification: October 15, 2015
Certified Until: October 14, 2020

for demonstrating a high level of competence for infrastructure inspection by successfully completing an examination, documenting education and work experience, and fulfilling prescribed standards of conduct and performance required for CPII.

Keith Duncan, PE
Chair, Certification Commission

Michael Wilhelm, PE, CPII
Chair, CPII Council

The American Public Works Association

has conferred upon

Matthew Natividad, CPII

the designation of Certified Public Infrastructure Inspector
(CPII)

Date of Certification: February 9, 2016
Certified Until: February 8, 2021

for demonstrating a high level of competence for infrastructure inspection by successfully completing an examination, documenting education and work experience, and fulfilling prescribed standards of conduct and performance required for CPII.

Keith Duncan, PE
Chair, Certification Commission

Michael Wilhelm, PE, CPII
Chair, CPII Council

BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

This Is To Certify That Pursuant
To The Provisions of Chapter 7, Division 3 of the Business and Professions Code

Charles Gray

IS DULY LICENSED AS A
PROFESSIONAL ENGINEER
IN
Civil Engineering

In The State of California, and Is Entitled To All The Rights and Privileges Conferred In Said Code

WITNESS OUR HAND AND SEAL

Certificate No. C 81321

This 29th day of May, 2013, at Sacramento, California.

BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

Richard B. Moore, P.L.S. – Executive Officer

William "Paul" Wilburn, P.E. – Board President

THE AMERICAN PUBLIC WORKS ASSOCIATION

HAS CONFERRED UPON

Jameson Farr, CPII

THE DESIGNATION OF

CERTIFIED PUBLIC INFRASTRUCTURE INSPECTOR (CPII)

FOR DEMONSTRATING A HIGH LEVEL OF COMPETENCE FOR INFRASTRUCTURE INSPECTION BY SUCCESSFULLY COMPLETING AN EXAMINATION, DOCUMENTING EDUCATION AND WORK EXPERIENCE, AND FULFILLING PRESCRIBED STANDARDS OF CONDUCT AND PERFORMANCE REQUIRED FOR CPII.

Date of Certification: 12/10/2019
Certified Until: 12/09/2024

Lowell Patton, CPII
Chair, Certification Council

BOARD FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

This Is To Certify That Pursuant
To The Provisions of Chapter 7, Division 3 of The Business and Professions Code

Patrick Ryan Riddell

IS DULY LICENSED AS A
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

In The State of California, and Is Entitled To All The Rights and Privileges Conferred In Said Code

WITNESS OUR HAND AND SEAL

Certificate No C 72034

This 25th day of January, 2008, at Sacramento, California.

BOARD FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

Executive Officer

President

American Red Cross
Training Services

Charles Gray

has successfully completed requirements for

Adult First Aid/CPR/AED: valid 2 Years

Date Completed: 07/25/2019
conducted by: American Red Cross
Instructor: Emilie Bard

ID: GY7NDS
Scan code or visit:
redcross.org/confirm

Certificate of Professional Liability Insurance

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 8/31/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Dealey, Renton & Associates
P. O. Box 12675
Oakland CA 94604-2675

CONTACT NAME:
PHONE (A/C, No, Ext): 510-465-3090 **FAX (A/C, No):** 510-452-2193
E-MAIL ADDRESS: certificates@dealeyrenton.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Transportation Insurance Company	20494
INSURER B : Continental Insurance Company	35289
INSURER C : Hartford Fire Ins. Co.	19682
INSURER D : Beazley Insurance Company, Inc.	37540
INSURER E : Valley Forge Insurance Company	20508
INSURER F :	

INSURED CANNOCORP
Cannon Corporation
PENCO a Cannon Corporation
1050 Southwood Drive
San Luis Obispo CA 93401

COVERAGES **CERTIFICATE NUMBER:** 326609253 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
E	X **COMMERCIAL GENERAL LIABILITY** CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT X LOC OTHER:	Y	Y	6079204724	9/1/2019	9/1/2020	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG 	$ 1,000,000 $ 1,000,000 $ 15,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 $
A	**AUTOMOBILE LIABILITY** X ANY AUTO OWNED AUTOS ONLY HIRED AUTOS ONLY SCHEDULED AUTOS NON-OWNED AUTOS ONLY	Y	Y	6079209373	9/1/2019	9/1/2020	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) 	$ 1,000,000 $ $ $ $
B	**UMBRELLA LIAB** X OCCUR X **EXCESS LIAB** CLAIMS-MADE DED RETENTION $	Y	Y	6079210751	9/1/2019	9/1/2020	EACH OCCURRENCE AGGREGATE 	$ 9,000,000 $ 9,000,000 $
C	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A	Y	51WEAA5OF4	9/1/2019	9/1/2020	PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
D	Professional Liability			V27737190101	6/8/2019	9/1/2020	Limit Aggregate	2,000,000 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
For Informational Purposes Only!!!

Carrier AM Best Ratings:
American Casualty Company of Reading PA - A (Excellent)
Transportation Insurance Company - A (Excellent)
Continental Insurance Company - A (Excellent)
Hartford Fire Ins Co.- A+ (Superior)
Beazley Insurance Company, Inc.
See Attached...

CERTIFICATE HOLDER

SAMPLE

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2016/03) **The ACORD name and logo are registered marks of ACORD**

AGENCY CUSTOMER ID: CANNOCORP

LOC #:

ADDITIONAL REMARKS SCHEDULE

AGENCY Dealey, Renton & Associates	NAMED INSURED Cannon Corporation PENCO a Cannon Corporation 1050 Southwood Drive San Luis Obispo CA 93401
POLICY NUMBER	
CARRIER / NAIC CODE	EFFECTIVE DATE:

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 FORM TITLE: CERTIFICATE OF LIABILITY INSURANCE

PL Deductible: $100,000/claim

Cannon
11900 West Olympic Blvd, Ste 530
Los Angeles, CA 90064
310.664.1166

MEMORANDUM OF AGREEMENT
FOR THE CALLEGUAS – LAS VIRGENES
INTERCONNECTION PROJECT BETWEEN
LAS VIRGENES MUNICIPAL WATER DISTRICT
AND
THE CITY OF WESTLAKE
VILLAGE

This Memorandum of Agreement (“MOA”) is entered into by and among the Las Virgenes Municipal Water District (“District") and the City of Westlake Village ("City"), collectively referred to herein as the "Parties." The MOA is effective as of the date of execution by the last party to execute the MOA.

RECITALS

A. WHEREAS, on _____September 15_____2019, the District awarded Contract No. ____TK__ ("Contract") to ____Sully-Miller Contracting Co. ("Contractor") for the Calleguas – Las Virgenes Interconnection Project at Lindero Canyon Road (“Project"), a public works project.

B. WHEREAS, the District’s notice inviting bids for the Project also included Additive Bid Schedule A, Additive Bid Schedule B, and Alternative Paving Bid Schedule 2, attached as Exhibit "A" hereto and incorporated herein by this reference as though set forth in full, for all items for construction and installation of 3-2 inch conduit and AC surface pavement and appurtenances ("City Work").

C. WHEREAS, the District and the City desire to complete the installation of the City Work in the most cost-effective manner with the least amount of disruption to the City’s residents.

D. WHEREAS, the City has asked the District to include the City Work as part of the Project.

E. WHEREAS, the Parties desire to divide responsibilities under this MOA, as described in Exhibit “A”, with the City paying for Contractor’s charges associated with the City Work, the City managing the construction of and inspecting installation of the Alternative Paving Bid Schedule 2, and the District managing the construction of and inspecting installation of the remainder of the Project including Additive Bid Schedule A and Additive Bid Schedule B .

F. WHEREAS, the District will serve as the main agency for the administration of the construction of the Project (including the City Work) on behalf of the Parties; and

G. WHEREAS, the Parties desire to enter into this MOA voluntarily to, among other things: 1) act in a cooperative manner to complete the Project including the City Work; 2) set forth the Parties’ intent to have the Project administered and coordinated

by the District; 3) establish the roles of the Parties relative to each other; and 4) establish the terms of payment from the City to the District.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual benefits and representations made herein, the Parties hereby agree as follows:

1. Purpose — This MOA is entered into by the Parties to provide for the construction and installation of the City Work within Lindero Canyon Road, between Thousand Oak Blvd and Westlake Village City Limits at Los Angeles County Line. The City Work Site is identified and described in Exhibit "B" hereto and incorporated herein by this reference as though set forth in full.

2. Incorporation of Recitals — The recitals above are incorporated by reference and hereby made a part of this MOA.

3. Term of MOA — This MOA shall continue in effect until the City Work is completed and all associated payments to Contractor are made, unless earlier terminated or extended by written agreement of the Parties.

4. Information Sharing — The Parties mutually agree to share, to the extent not otherwise prohibited by law or by legal or trade secret privilege, all information required to develop, prepare, and submit documents required for the City Work.

5. Contractor Payment — The District shall pay Contractor for the City Work in accordance with the terms outlined in the bid documents for the Project.

6. Payment — The City shall pay to the District, in an amount which shall not exceed the costs for the City Work as defined in the Contractor cost proposal attached as Exhibit "A" hereto and incorporated herein by this reference as though set forth in full and as billed by Contractor during the Project. All other costs incurred by the District in connection with the other components of the Project shall be paid by the District, and all costs incurred by the City for the City Work shall be paid by the City. All costs incurred by the District for the City Work in excess of the amounts listed in Exhibit C will be reviewed by the District and the City, and will paid by the City if such excess costs either (i) result from an emergency change order; or (ii) result from a discretionary change order for which the City gave prior approval pursuant to Section 8 below. The District shall incrementally invoice the City for the cost of the City Work *(i.e.,* the City's respective share of Contractor's compensation for the City Work). The City shall promptly pay the District for the amount stated in an invoice, but not later than 30 days after receipt of an invoice.

7. Contracting — The Parties agree that the District shall be considered the contracting agency and the administrator of the City Work. It is the intent of the Parties that Contractor shall look solely to the District for payment and to resolve any issues with the Contract.

8. Supervision of Contractor — The District shall act as the lead agency in the construction and management of the Project, exclusive of Alternative Paving Bid Schedule 2. In such capacity, the District shall award the construction contract for the Project, including all City Work. The District shall be responsible for coordinating all activities of Contractor and resolving all issues with the Contract or the Project, exclusive of management of Alternative Paving Bid Schedule 2. The City will be responsible for managing the construction of and inspection of Alternative Paving Bid Schedule 2. The District shall further be responsible for reviewing and approving all change orders for the Project, including such change orders related to the City Work. The City shall have the opportunity to approve or deny discretionary change orders related to the City Work. The City will inspect the installation of Alternative Paving Bid Schedule 2 and may direct Contractor and subcontractors related to Alternative Paving Bid Schedule 2 within the scope of the Contract. Except for change orders issued on an emergency basis, the District shall notify the City regarding all proposed change orders related to the City Work, including cost and scope changes, and shall offer the City reasonable time for approval or denial of such change orders.

9. Indemnification

A. The City shall indemnify and defend the District and the District's officers, agents, and employees from and against any and all liabilities, actions, suits, proceedings, claims, demands, losses, costs, and expenses, including legal costs and attorney's fees, for injury to or death of person(s), for damage to property (including property owned by the District) resulting from acts or omissions of the City or any of the City's officers, employees, or agents in connection with the City Work.

B. The District shall indemnify and defend the City and the City's officers, agents, and employees from and against any and all liabilities, actions, suits, proceedings, claims, demands, losses, costs, and expenses, including legal costs and attorney's fees, for injury to or death of person(s), for damage to property (including property owned by the City) resulting from acts or omissions of the District or any of the District's officers, employees or agents in connection with the Project (including the City Work). Notwithstanding the preceding, the District shall have no liability to the City for the negligent or intentional acts or omissions of Contractor or District's consultants for the Project. The City's sole recourse for any negligent or intentional act or omission of Contractor or District's consultants shall be against Contractor or such consultants and their insurance.

C. This Section 9 shall survive the termination or expiration of this MOA.

10. Representation — The representative of the District shall be the Director of Facilities and Operations. The representative of the City shall be the Public Works Director/City Engineer. These individuals shall be the primary contact persons for the

Parties regarding the performance of this MOA unless otherwise designated by a Party's representative.

11. Notices — Any notices, bills, invoices, or reports relating to this MOA and any request, demand, statement or other communication required or permitted hereunder shall be in writing and shall be delivered to the representatives of the Parties at the addresses set forth below:

To District: Las Virgenes Municipal Water District
Attn: Oliver Slosser, P.E., Senior Engineer
4232 Las Virgenes Road
Calabasas, CA 91302-1994

To City: City of Westlake Village
Attn: Roxanne Hughes, City Engineer
31200 Oak Crest Drive
Westlake Village, CA 91361

Written notice shall include notice delivered via email. A notice shall be deemed to have been received on (a) the day of delivery, if delivered by hand during regular business hours or by confirmed facsimile or by confirmed email; or (b) on the third business day following deposit in the United States mail, postage prepaid to the addresses set forth herein.

12. Relationship of the Parties — The Parties are, and shall at all times remain as to each other, wholly independent entities. Neither Party to this MOA shall have power to incur any debt, obligation, or liability on behalf of any other Party or otherwise act on behalf of any other Party as an agent except as expressly provided by this MOA. No official, employee, agent, or officer of a Party shall represent that he, she or anyone else from that Party is in any manner an official, agent, employee or officer of the other Party.

13. Governing Law — This MOA shall be governed, interpreted, construed and enforced in accordance with the law of the State of California, excluding California's choice of law rules. Venue for any legal action or other proceeding relating to this MOA shall be in the Los Angeles County Superior Court.

14. Severability — If any provision of this MOA shall be determined by any court to be invalid, illegal or unenforceable to any extent, the remainder of this MOA shall not be affected and this MOA shall be construed as if the invalid, illegal or unenforceable provision had never been contained in this MOA.

15. Amendment — This MOA may be modified or amended, or provisions or breach may be waived, only by subsequent written agreement signed by the Parties.

16. Authority — The persons executing this MOA on behalf of each Party represents and warrants that he or she has the authority to execute this MOA on behalf of such Party and has the authority to bind the Party to the performance of its obligations hereunder.

17. No Presumption in Drafting. The Parties to this MOA agree that the general rule than an agreement is to be interpreted against the Party drafting it, or causing it to be prepared, shall not apply.

18. Entire Agreement — This MOA, including any other documents incorporated herein by specific reference, represents the entire and integrated agreement between the Parties regarding the City Work and supersedes all prior negotiations, representations or agreements, either written or oral, regarding such subject.

19. Counterparts — This MOA may be executed in counterparts, all such executed counterparts shall constitute the same MOA, and the signature of any party to any counterpart shall be deemed a signature, and may be appended to, any other counterpart.

IN WITNESS WHEREOF, the parties have caused their duly authorized representatives to sign below.

LAS VIRGENES MUNICIPAL WATER DISTRICT

CITY OF WESTLAKE VILLAGE

EXHIBIT "A"

Contractor Cost Proposal for All Bid Schedules

EXHIBIT “B”

City Work Site and Full Plan Set

EXHIBIT “C”

PROJECT COST PROPOSAL

From:	Roxanne Hughes
To:	Slosser, Oliver
Cc:	Schlageter, Eric; Mike Bustos; Tucker Graczyk; mwessel@interwestgrp.com
Subject:	RE: Interconnection Project - Toro Withdrawal and Sully-Miller proposal page
Date:	Wednesday, September 2, 2020 11:53:29 AM

HI Oliver – I have a solid direction from City Manager to MOVE FORWARD to award both the Additive Bid Schedule A and Alternative Paving Bid Schedule 2 with the District Contract.

Please forward the MOA for finalizing. We can take this item to City Council on Sept 23rd.

Roxanne Hughes, PE
City Engineer

City of Westlake Village
M. 805.890.8885

From: Slosser, Oliver <OSlosser@lvmwd.com>
Sent: Tuesday, September 1, 2020 5:03 PM
To: Roxanne Hughes <rhughes@willdan.com>
Cc: Schlageter, Eric <ESchlageter@lvmwd.com>; Mike Bustos <mbustos@willdan.com>; Tucker Graczyk <TGraczyk@willdan.com>
Subject: RE: Interconnection Project - Toro Withdrawal and Sully-Miller proposal page

Hi Roxanne,

Sorry I missed your call, I am usually reachable at the 818-585-7123 number. We did include those plans as an addendum as the call for bids had already been posted. I have attached the addendum and attachment for your reference. Thank you.

Best,

Oliver Slosser, PE
Senior Engineer
Las Virgenes Municipal Water District
oslosser@lvmwd.com
(office) (818) 251-2143
(cell) (818) 585-7123
(fax) (818) 251-2159

From: Roxanne Hughes <rhughes@willdan.com>
Sent: Tuesday, September 1, 2020 4:47 PM
To: Slosser, Oliver <OSlosser@lvmwd.com>
Cc: Schlageter, Eric <ESchlageter@lvmwd.com>; Mike Bustos <mbustos@willdan.com>; Tucker

September 15, 2020 LVMWD Regular Board Meeting

TO: Board of Directors

FROM: Engineering and External Affairs

Subject : Rancho Solar Field Facility Landscaping Project: Call for Bids

Up to $100,000 will be reimbursed by Borrego Solar per the power purchase agreement with the JPA. This recommendation is before the LVMWD Board of Directors for action, as administering agent, as authorized in the Joint Powers Authority Agreement. Bids received for this project will be presented to the JPA Board of Directors for further action.

SUMMARY:

The JPA Board approved the Rancho Solar Generation Project Phase II on November 15, 2018. The project is located adjacent to the existing, one-megawatt Phase I solar facility in the North Canyon of the Rancho Las Virgenes Farm Sprayfields. It will add an additional four megawatts of solar generation capacity for a total combined five megawatts. One component of the project consists of landscaping improvements along Las Virgenes Road to help screen the expanded solar facility from public view. The design component for the landscaping improvements was recently completed by L. Newman Design Group, and the work is ready to be advertised for construction bids. The project includes grading and berm construction; installation of a new irrigation system; planting of shrubs and groundcover; and maintenance for a 90-day post-installation period. Staff recommends that the Board authorize the issuance of a Call for Bids for the Rancho Solar Field Facility Landscaping Project.

RECOMMENDATION(S):

Authorize the issuance of a Call for Bids for the Rancho Solar Field Facility Landscaping Project.

FISCAL IMPACT:

No

ITEM BUDGETED:

No

FINANCIAL IMPACT:

There is no financial impact associated with the issuance of a Call for Bids. The Power Purchase Agreement executed with Borrego Solar provides for the JPA to be reimbursed for up to $100,000 in landscaping improvements.

DISCUSSION:

The JPA Board approved the Rancho Solar Generation Project Phase II on November 15, 2018. The project is located adjacent to the existing one-megawatt Phase I solar facility near the District's headquarters. The Phase II project is expected to save the JPA customers $10.3 million over a 25-year period, while providing clean energy for water distribution and wastewater treatment. The reduction of greenhouse gas emissions by utilizing clean, renewable energy will amount to the equivalent of removing 1,200 cars from the road or planting 6,600 acres of trees.

The landscaping project design was recently completed by L. Newman Design Group, and the work is ready to be advertised for construction bids. The project includes grading and berm construction; installation of a new irrigation system; planting of shrubs and groundcover; and maintenance for a 90-day post-installation period.

Following is the proposed bid schedule:

Authorization of Call for Bids	September 15, 2020
1st Advertisement	September 17, 2020
2nd Advertisement	September 24, 2020
Mandatory Pre-Bid Job Walk (by appt.)	September 29 or September 30, 2020
Bid Opening	October 8, 2020
Award of Contract (tentative)	October 20, 2020

The project is being timed to closely follow completion of construction for the solar field and to install the new landscaping before the end of the wet season to allow for the plantings to establish. The District performed public outreach to local residents and solicited their input for the proposed landscaping. Attached for reference is a sample mailer that was circulated. The landscaping work was identified as a mitigation measure in the environmental documentation for the Phase II solar project.

GOALS:

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

This project meets the environmental mitigation measures as presented in the environmental documentation for the Phase II solar project.

Prepared by: Oliver Slosser, P.E., Senior Engineer

ATTACHMENTS:

Call for Bids

Landscaping Plans and Specifications
Public Outreach Mailer
Public Outreach Map

NOTICE INVITING SEALED PROPOSALS (BIDS)
SOLAR FIELD FACILITY LANDSCAPING PROJECT

NOTICE IS HEREBY GIVEN that the Board of Directors of Las Virgenes Municipal Water District invites and will receive sealed proposals (bids) up to the hour of 3:00PM on October 8, 2020, for furnishing the work described in the contract documents. Bids received after the time stated in the Call for Bids will not be accepted and will be returned, unopened, to the bidder. The time shall be determined by the time on the receptionist telephone console in our Headquarters lobby. Proposals will be publicly opened and read aloud at the District headquarters, 4232 Las Virgenes Road, Calabasas, California 91302. Said bids shall conform to and be responsive to the Specifications and Contract Documents for said work as heretofore approved by the District Board of Directors.

Precautions are being taken by the District in response to the novel coronavirus and COVID- 19 outbreak in order to protect employees, customers, and our partners. Until further notice, the District is suspending many in-person meetings relating to bids (including public bid openings and the hand-delivery of bids by company employees) to reduce the number of people coming into District facilities.

This policy is effective, Monday, April 6, 2020, and remains in force until further notice. All bids must be sent by mail or dropped at the District drop box. Bidders must allow enough time for bids to be delivered to the District by the due date. All submittals will be time stamped as soon as they are received. Bids received after the due date and time may be deemed non-responsive and excluded from consideration. The District is allowing proposals to be dropped into a mail box outside the front entrance doors to the main building (4232 Las Virgenes Rd.) This mail box is checked every morning, and will also be checked several times throughout the bid due date. All bids are to be received by the deadline, 3:00pm on October 8, 2020. Bids being sent by mail must allow sufficient time for delivery, to District headquarters, by the deadline. It is also recommended to specify "SOLAR FIELD FACILITY LANDSCAPING PROJECT", somewhere on the envelope to ensure prompt timestamping.

Mandatory pre-bid tours will be conducted on by appointment only and will be conducted September 29 and September 30, 2020. Please contact Oliver Slosser, PE, Project Manager, at (818) 585-7123 or oslosser@lvmwd.com, to schedule a date and time. Attendance at a pre-bid conference is a condition precedent to submittal of the bid and the District will not consider a bid from any bidder not represented at a pre-bid tour. Questions regarding the project may be directed to Project Manager, Oliver Slosser.

Sets of contract documents may be downloaded for free by going to http://www.LVMWD.com/Ebidboard and following the links to this project.

In order to be placed on the plan holder's list, contractors shall register for free as a document holder for this project on Ebidboard by going to www.LVMWD.com/Ebidboard and following the links to this project. Addendum notifications will be issued through

Ebidboard.com, but may also be provided by calling the District's Project Manager. Although Ebidboard will fax and/or email all notifications to registered plan holders after the District uploads the information, Bidders are responsible for obtaining all addenda and updated contract documents.

Each bid must be on the District bid form and shall be sealed and filed with the District at or before the time stated in the Notice.

No Contractor or Subcontractor may be listed on a bid proposal for a public works project submitted on or after March 1, 2015 unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. No Contractor or Subcontractor may be awarded a contract for public work on a public works project awarded on or after April 1, 2015 unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. Effective January 1, 2016, no Contractor or Subcontractor may perform on a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. This project is subject to compliance monitoring and enforcement by the DIR.

All terms and conditions contained in the Specifications and Contract Documents shall become part of the contract. The Board of Directors of the JPA reserves the right to reject any and all bids and to waive any and all irregularities in any bid. No bidder may withdraw his bid after the said time for bid openings until 60-days thereafter or until the JPA has made a final award to the successful bidder or has rejected all bids, whichever event first occurs.

The Board of Directors of the District reserves the right to select the schedule(s) under which the bids are to be compared and contract(s) awarded.

BY ORDER OF THE GOVERNING BODY OF LAS VIRGENES MUNICIPAL WATER DISTRICT

_____ _____

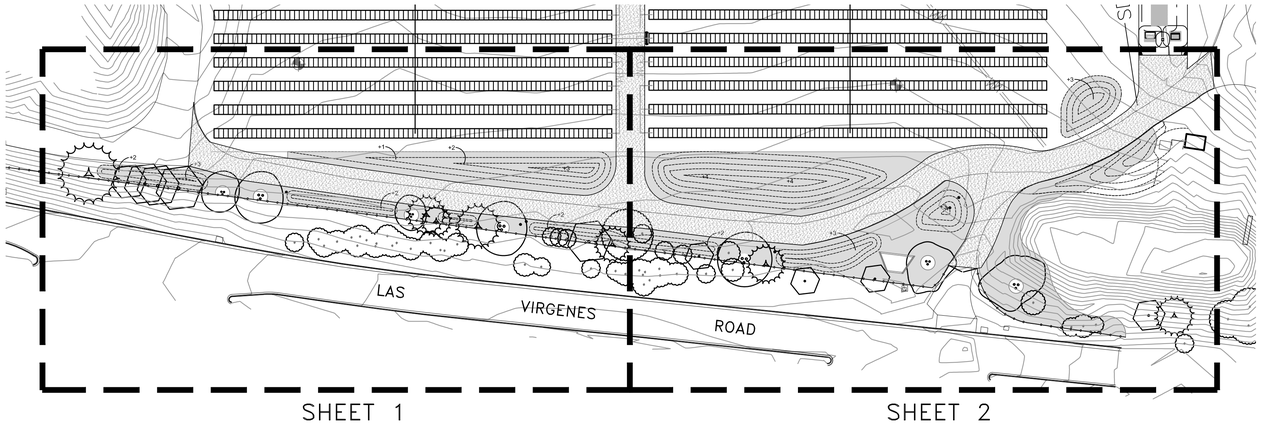
Dated

Charles Caspary
Secretary of the Board

LAS VIRGENES MUNICIPAL WATER DISTRICT

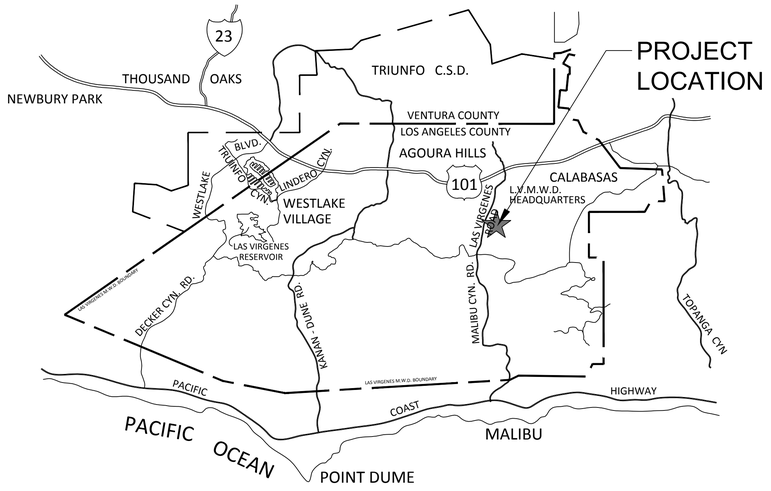
SOLAR FIELD FACILITY

CALABASAS, CA



NOT TO SCALE

KEY MAP



NOT TO SCALE

VICINITY MAP

Signature
7-31-21
Renewal Date
5-26-2020
Date

LIST OF DRAWINGS

		SHEET NO.
LT-1	TITLE SHEET	1
LI-1	IRRIGATION PLAN	2
LI-2	IRRIGATION PLAN	3
LP-1	PLANTING PLAN	4
LP-2	PLANTING PLAN	5
LD-1	DETAILS	6
LS-1	SPECIFICATIONS	7

DESIGN:
DRAWN:
CHECKED:

ENGINEER'S SEAL

REV. NO.	DATE	DESCRIPTION	APPVD.	DATE

REVISIONS

LNDG # 2365-03 DATE: 05/01/2020

L. Newman Design Group, Inc.

■ Landscape Architecture
■ Planning
■ Horticulture
■ Biological Restoration

■ 31300 Via Colinas ■ Suite 104 ■ Westlake Village, CA 91362-3924
■ Phone: (818) 991-5056 ■ Fax: (818) 991-3478 ■ Email: LNDG @ LNDG.net

LAS VIRGENES MUNICIPAL WATER DISTRICT

SOLAR FIELD FACILITY

COVER

PREPARED BY:

LVMWD ENGINEERING
4232 LAS VIRGENES ROAD
CALABASAS, CALIFORNIA 91302

APPROVED FOR LAS VIRGENES MUNICIPAL WATER DISTRICT

BY: _____

PRINCIPAL ENGINEER
R.C.E. 22931

DATE: _____

SCALE:

DATE: May 1, 2020

SHEET 1 OF 7

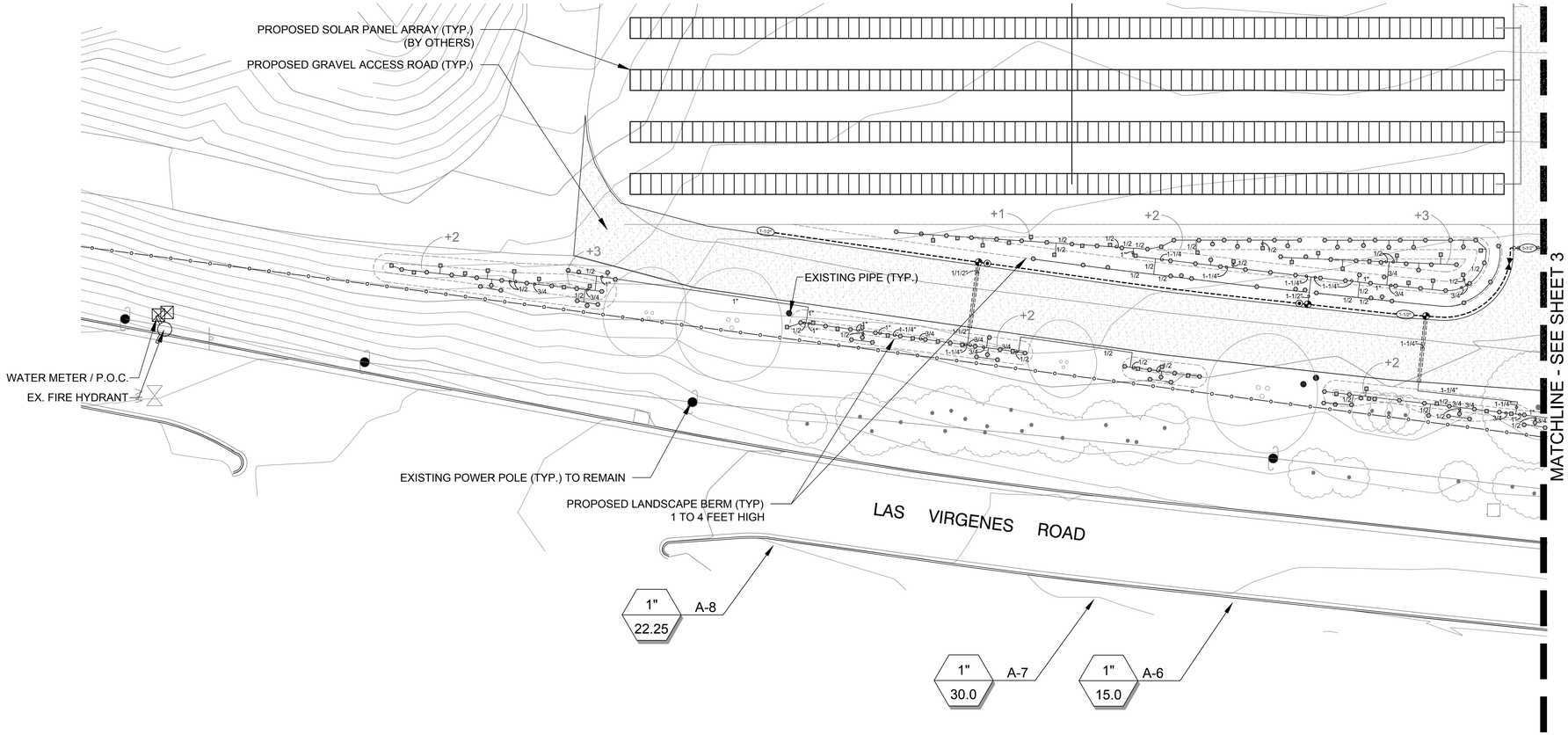
LAS VIRGENES MUNICIPAL WATER DISTRICT / SOLAR FACILITY / LNDG JOB #2365-03

EQUIPMENT LEGEND

SYMBOL	MANUFACTURER / MODEL NUMBER	SIZE	DETAIL
M	IRRIGATION POINT OF CONNECTION - PER CIVIL ENGINEER	1-1/2"	N/A
MV	GRISWOLD NORMALLY OPEN MASTER CONTROL VALVE (2260R)	1-1/2"	'C' - LD-1
PR	WATTS PRESSURE REGULATOR (SET AT 85-90 PSI)	1-1/2"	'D' - LD-1
BF	FEBCO - 825YA, 1-1/2" R/P BACKFLOW PREVENTION ASSEMBLY W/ MODEL 650 2" WYE STRAINER	1-1/2"	'B' - LD-1
FS	RAINBIRD FLOW SENSOR (FS150B)	1-1/2"	'G' - LD-1
A	IRRITROL CONTROLLER - MC-12-E (12 STATION) W/ PEDESTAL (P-2B) & WIRELESS RAINSENSOR (RS-1000)	N/A	'A' - LD-1
	NIBCO T-580-70 BRONZE BALL VALVE - 3" AND SMALLER	LINE SIZE	'H' - LD-1
	RAIN BIRD #33-DLRC QUICK COUPLING VALVE WITH LOCKING COVER	3/4"	'F' - LD-1
	RAIN BIRD 100/150-PESB-PRS-D - REMOTE CONTROL VALVE - W/ LOCKING COVER	PLAN SIZE	'E' - LD-1
1-1/2"	SCH 40 PVC IRRIGATION PRESSURE MAINLINE - (CL 315 FOR PIPE 1-1/2" AND LARGER") - 24" MINIMUM COVER	PLAN SIZE	'J' - LD-1
	PVC NON-PRESSURE LATERAL LINE (SCH. 40 PVC PIPE), 12" MINIMUM COVER	PLAN SIZE	'J' - LD-1
	SCH 40 PVC SLEEVE, 24" MINIMUM COVER UNDER WALKWAYS, 36" MINIMUM UNDER ROADWAYS - EXTEND SLEEVES 18" BEYOND HARDCAPE	PLAN SIZE	'K' - LD-1
NOT SHOWN	IRRIGATION CONTROL WIRE TO BE #14UF AWG DIRECT BURIAL (U.L. APPROVED)	N/A	-
NOT SHOWN	SPEARS- DS 400 PRE-FILLED WIRE CONNECTORS OR EQUAL, FOR ALL WIRE CONNECTIONS.	N/A	-

SPRINKLER LEGEND

SYMBOL	MANUFACTURER / MODEL	NOZZLE	RAD	PSI	FLOW - GPM Q / H / F	DETAIL
INDICATES SHRUB BUBBLER (SEE QUANTITIES PER SHRUB BELOW))						
	HUNTER (1 PER SHRUB)	PCB-25H	1'	30	0.25	'I' - LD-1
	HUNTER (2 PER SHRUB)	PCB-25H	1'	31	0.25	'I' - LD-1



IRRIGATION NOTES:

1. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIM/HERSELF WITH ALL OF THE SITE FEATURES. THIS INCLUDES, BUT IS NOT LIMITED TO GRADES, PAVING, WALL AND BUILDING LOCATIONS, AND UTILITIES, ETC. IF, DURING HIS / HER SITE FAMILIARIZATION, THE CONTRACTOR DETERMINES THAT CONDITIONS EXIST WHICH WOULD HINDER HIM OR HER FROM INSTALLING THE IRRIGATION SYSTEMS AS DESIGNED, HE/ SHE SHALL NOTIFY THE OWNER, OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT WITHIN 24 HOURS OF DETERMINING THAT A PROBLEM EXISTS. DO NOT BEGIN WORK UNTIL ANY AND ALL DISCREPANCIES ARE ELIMINATED. ANY WORK BEGUN PRIOR TO NOTIFICATION IS AT THE CONTRACTORS RISK. ALL CORRECTIONS DUE TO NON-NOTIFICATION BY THE CONTRACTOR SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE.
2. THE SPRINKLER SYSTEM DESIGN IS BASED ON A STATIC PRESSURE OF 200 PSI, AS VERIFIED BY LAS VIRGENES WATER DISTRICT ON 05-14-2020, REGULATED AT 85-90 PSI, AND A MAXIMUM FLOW OF 35 GPM THE IRRIGATION CONTRACTOR SHALL VERIFY THE STATIC PRESSURE AND FLOW PRIOR TO CONSTRUCTION. IF STATIC WATER PRESSURE IS LESS THAN 80 PSI MINIMUM REQUIRED PRESSURE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY FOR DIRECTION ON HOW TO PROCEED AND THE REQUIRED EQUIPMENT NECESSARY. FAILURE TO NOTIFY THE LANDSCAPE ARCHITECT SHALL PLACE ALL REQUIRED EXPENSES FOR REPAIRS, EQUIPMENT AND OTHER RELATED COSTS AS THE FULL RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. ANY VARIANCE FROM THE DESIGN PRESSURE SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT WITHIN 24 HOURS AND PRIOR TO COMMENCEMENT OF ANY WORK. IF IT IS FOUND THAT THE PRESSURE AND/OR FLOW DEVIATE FROM THE DESIGN AND THE CONTRACTOR COMMENCES WORK WITHOUT NOTIFYING THE LANDSCAPE ARCHITECT, ALL CORRECTIVE ACTION NECESSARY TO ESTABLISH A FUNCTIONAL IRRIGATION SYSTEM SHALL BE AT THE LANDSCAPE CONTRACTOR'S EXPENSE.
3. NO SUBSTITUTION OF ANY PRODUCT MAY BE MADE UNLESS THE LANDSCAPE CONTRACTOR PROVIDES A WRITTEN REQUEST TO THE LANDSCAPE ARCHITECT AND THE OWNER. THE LANDSCAPE CONTRACTOR SHALL STATE THE REASON THAT THE CHANGE IS BEING REQUESTED. DO NOT SUBSTITUTE ANY EQUIPMENT WITHOUT THE EXPRESS AUTHORIZATION AND APPROVAL OF THE LANDSCAPE ARCHITECT AND OWNER.
4. THIS DESIGN IS DIAGRAMMATIC. ALL IRRIGATION EQUIPMENT, CONTROLLERS, VALVES, ETC. SHALL BE PLACED WITHIN THE NEAREST GROUND COVER AND SHRUB AREAS. MAIN LINE, WIRES AND LATERAL LINES SHALL ALSO BE PLACED WITHIN PLANTED AREAS. EXCEPTION TO THIS IS TAKEN WHERE THE PLAN SHOWS PIPING CROSSING PAVED AREAS AND SLEEVE SYMBOLS ARE PRESENT.
5. ALL MAIN LINE, LATERAL PIPING AND CONTROL WIRES, UNDER PAVING, SHALL BE IN SEPARATE SLEEVES. MAIN LINE AND LATERAL SLEEVES SHALL BE A MINIMUM OF 4". FOR PIPING LARGER THAN 2", THE SLEEVES SHALL BE TWICE THE PIPE DIAMETER. WIRE SLEEVING SHALL BE 2" OR LARGER TO ACCOMMODATE CONTROL AND COMMON WIRES. SLEEVES UNDER ROADWAYS SHALL BE 36" DEEP; BURY ALL OTHER MAIN LINE SLEEVES 18" DEEP AND ALL LATERALS 12" DEEP, EXCEPT AS NOTED. THESE DEPTHS ARE MINIMUMS.
6. BURY ALL MAIN LINE 18" DEEP AND ALL LATERALS 12" DEEP FROM FINISHED GRADE TO TOP OF PIPE. THESE DEPTHS ARE MINIMUMS.
7. PIPE SIZES SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS. NO SUBSTITUTIONS OF SMALLER SIZED PIPE SHALL BE ALLOWED. LARGER SIZES MAY BE SUBSTITUTED UPON REQUEST AND SUBSEQUENT APPROVAL BY THE LANDSCAPE ARCHITECT.
8. ALL IRRIGATION EQUIPMENT NOT DETAILED SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
9. AFTER MAIN LINE HAS BEEN INSTALLED AND PRIOR TO COVERING THE MAINLINE TRENCH, A PRESSURE TEST SHALL BE CONDUCTED. ALL PRESSURE LINES SHALL BE HYDRAULICALLY TESTED UNDER 160 P.S.I. FOR 24 HOURS. IF LEAKS DEVELOP, THEY SHALL BE REPAIRED AND THE TEST REPEATED UNTIL THE ENTIRE MAIN LINE IS PROVEN TO BE WATERTIGHT. CERTIFICATION, IN WRITING, SHALL BE SUBMITTED TO THE OWNER VERIFYING THAT THE TEST HAS BEEN CONDUCTED SUCCESSFULLY.
10. CONTRACTOR IS TO PROVIDE AN ADDITIONAL PILOT WIRE TO THE END OF THE MAINLINE.
11. CONTRACTOR TO WORK AROUND ROOTS OF EXISTING TREES WHEN DIGGING TRENCH FOR LATERAL LINES IN PLANTER AREAS.
12. ALL IRRIGATION LATERAL LINES UNDER EXISTING OAK TREES SHALL BE HAND TRENCHED.
13. ALL QUICK COUPLER AND GATE VALVES TO BE INSTALLED AS SPECIFIED IN SHRUB OR GROUND COVER AREAS ONLY AND WITHIN 18" OF HARDSCAPE PER DETAIL.
14. CONTRACTOR TO TRIM IRRIGATION AROUND EXISTING OAK TREE CANOPIES TO REMAIN, LIGHT POLES, BOLLARDS, TRANSFORMERS, SIGNS AND ANY OTHER OBSTRUCTIONS THAT MAY BE A HINDRANCE IN ACCOMPLISHING FULL COVERAGE.
15. UPON COMPLETION OF THE IRRIGATION SYSTEM INSTALLATION, A COVERAGE TEST SHALL BE CONDUCTED WITH THE LANDSCAPE ARCHITECT PRESENT AND APPROVED PRIOR TO ANY PLANTING.
16. UPON COMPLETION OF THE IRRIGATION DRIP SYSTEM INSTALLATION AND BEFORE DRIP TRENCHES ARE BACKFILLED, A COVERAGE TEST SHALL BE CONDUCTED WITH THE LANDSCAPE ARCHITECT PRESENT. (SEE NOTE 14 ABOVE).
17. THE CONTRACTOR SHALL PERFORM A COVERAGE TEST WITH THE LANDSCAPE ARCHITECT PRESENT.
18. VERIFY THERE IS ADEQUATE PRESSURE BEING SERVED TO EACH DRIP VALVE.
19. AUTOMATIC CONTROLLER AND RAIN SHUTOFF TO BE PLACED IN CONTROLLER CABINET AS SHOWN. EXACT LOCATION TO BE VERIFIED IN THE FIELD BY THE LANDSCAPE ARCHITECT. ANY CHANGES TO THE FINAL LOCATION OF THE CONTROLLER SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
20. 120 VAC POWER SHALL BE PROVIDED TO THE CONTROLLER LOCATION BY THE OWNER. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL CONNECTION FROM THE POWER SOURCE TO THE CONTROLLER.
21. THE IRRIGATION CONTRACTOR SHALL GUARANTEE ALL MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE.

20 10 0 20 40

SCALE: 1" = 20' - 0"

PRB Signature 7-31-21 Renewal Date 5-26-2020 Date

LNDG # 2365-03 DATE: 05/01/2020

L. Newman Design Group, Inc.

■ Landscape Architecture ■ Planning ■ Horticulture ■ Biological Restoration

■ 31300 Via Colinas ■ Suite 104 ■ Westlake Village, CA 91362-3924
■ Phone: (818) 991-5056 ■ Fax: (818) 991-3478 ■ Email: LNDG @ LNDG.net

LAS VIRGENES MUNICIPAL WATER DISTRICT

SOLAR FIELD FACILITY

IRRIGATION PLAN

DESIGN:	ENGINEER'S SEAL
DRAWN:	
CHECKED:	

REV. NO.	DATE	DESCRIPTION	APPVD.	DATE

REVISIONS

PREPARED BY:

LVMWD ENGINEERING
4232 LAS VIRGENES ROAD
CALABASAS, CALIFORNIA 91302

APPROVED FOR LAS VIRGENES MUNICIPAL WATER DISTRICT

BY: _____

PRINCIPAL ENGINEER
R.C.E. 22931

DATE: _____

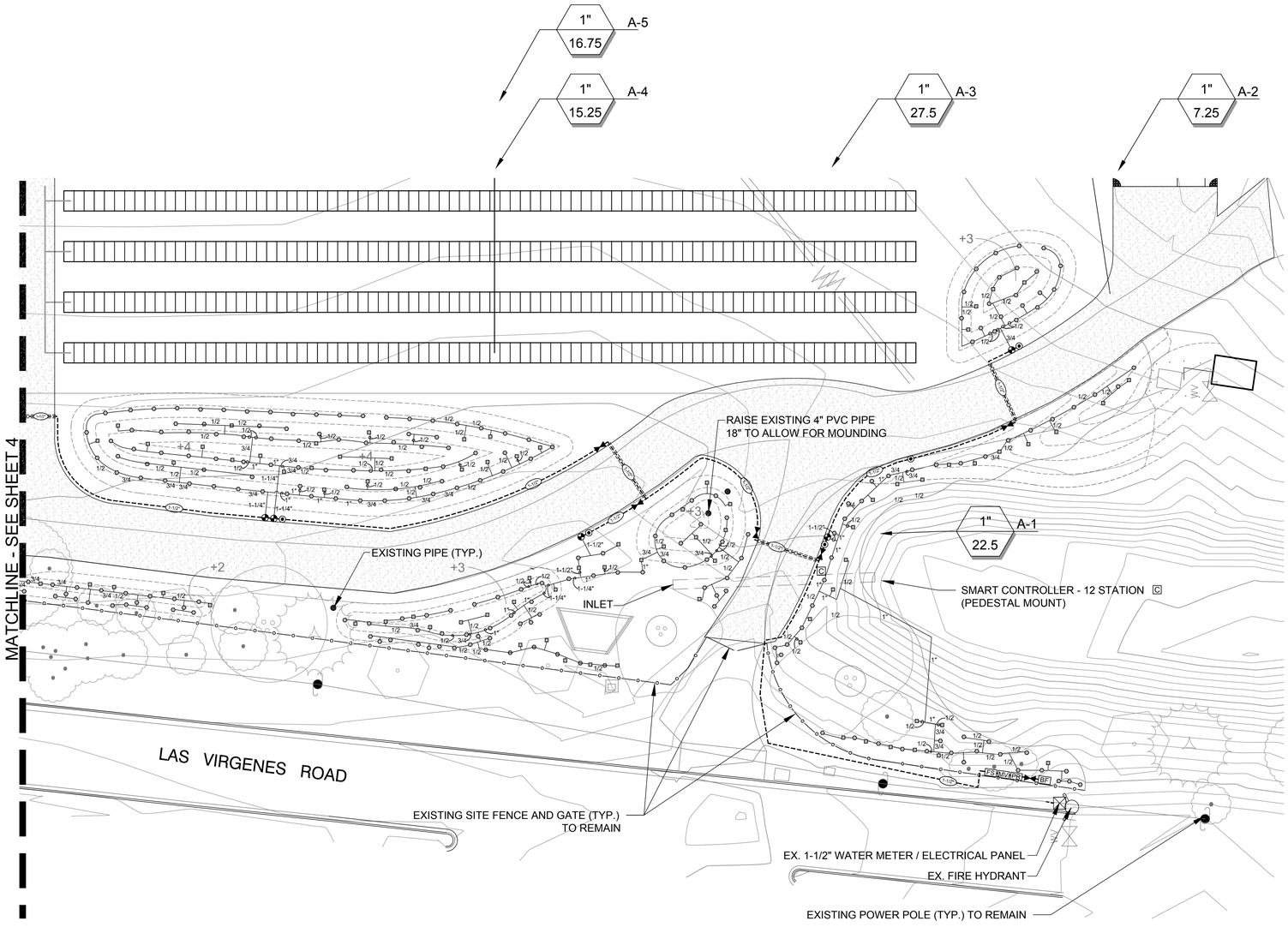
SCALE:

DATE: May 1, 2020

SHEET 2 OF 7

LAS VIRGENES MUNICIPAL WATER DISTRICT / SOLAR FACILITY / LNDG JOB #2365-03

F:\Jobs\2365-03 LVMWD - Solar Facility\ACAD\WORKING DWG\2365-03 Irrigation.dwg



20 10 0 20 40

SCALE: 1" = 20' - 0"

7-31-21 Revised Date

5-26-2020 Date

LNDG # 2365-03 DATE: 05/01/2020

L. Newman Design Group, Inc.
■ Landscape Architecture ■ Planning ■ Horticulture ■ Biological Restoration
■ 31300 Via Colinas ■ Suite 104 ■ Westlake Village, CA 91362-3924
■ Phone: (818) 991-5056 ■ Fax: (818) 991-3478 ■ Email: LNDG @ LNDG.net

LAS VIRGENES MUNICIPAL WATER DISTRICT

SOLAR FIELD FACILITY

IRRIGATION PLAN

PREPARED BY:

LVMWD ENGINEERING
4232 LAS VIRGENES ROAD
CALABASAS, CALIFORNIA 91302

APPROVED FOR LAS VIRGENES MUNICIPAL WATER DISTRICT

BY: _____
PRINCIPAL ENGINEER
R.C.E. 22931
DATE: _____

SCALE:

DATE: May 1, 2020

SHEET 3 OF 7

REV. NO.	DATE	DESCRIPTION	APPVD.	DATE

REVISIONS

DESIGN:
DRAWN:
CHECKED:

ENGINEER'S SEAL

FOR IRRIGATION LEGEND AND NOTES, SEE SHEET 2

F:\Jobs\2365-03 LVMWD - Solar Facility\ACAD\WORKING DWG\2365-03 Irrigation.dwg

37	VARIES	HETEROMELES ARBUTIFOLIA TOYON (15) 15 GALLON, (13) 24" BOX
98	1 GAL	CEANOTHUS GRISEUS HORIZONTALIS 'YANKEE POINT' YANKEE POINT CALIFORNIA LILAC @ 8'-0" O.C.
60	1 GAL	MUHLENBERGIA RIGENS DEER GRASS
19	15 GAL	RHUS OVATA SUGAR BUSH
8,900 sf		EARTHWORKS MULCH (3") OR EQUAL *HOLD 5'-0" MINIMUM FROM EXISTING OAK TREES (LEAVE EXISTING LEAF MULCH AT OAKS)

PROPOSED SOLAR PANEL ARRAY (TYP.)

PROPOSED GRAVEL ACCESS ROAD (TYP.)

EXISTING ON-SITE PINE TREE (TYP.)
ALONG FENCE LINE - TO REMAIN

EXISTING ON-SITE EUCALYPTUS TREE (TYP.)
ALONG FENCE LINE - TO REMAIN

EXISTING ON-SITE OAK TREE (TYP.)
ALONG FENCE LINE - TO REMAIN

EXISTING POWER POLE (TYP.) TO REMAIN

PROPOSED LANDSCAPE BERM (TYP)
1 TO 4 FEET HIGH

EXISTING ON-SITE TIPUANA TIPU TREE
(TYP.) ALONG FENCE LINE - TO REMAIN

EXISTING PIPE (TYP.)

+1 +2 +3

MATCHLINE - SEE SHEET 5

LAS VIRGENES ROAD

20 10 0 20 40
SCALE: 1" = 20' - 0"

FOR PLANTING NOTES AND SOIL SPECIFICATIONS, SEE SHEET 5

DESIGN:
DRAWN:
CHECKED:

ENGINEER'S SEAL

REV. NO.	DATE	DESCRIPTION	APPVD.	DATE
		REVISIONS		

7-31-21
Removed Date
5-26-2020
Date

LNDG # 2365-03 DATE: 05/01/2020

L. Newman Design Group, Inc.
■ Landscape Architecture
■ Planning
■ Horticulture
■ Biological Restoration
■ 31300 Via Colinas ■ Suite 104 ■ Westlake Village, CA 91362-3924
■ Phone: (818) 991-5056 ■ Fax: (818) 991-3478 ■ Email: LNDG @ LNDG.net

LAS VIRGENES MUNICIPAL WATER DISTRICT

SOLAR FIELD FACILITY

PLANTING PLAN

PREPARED BY:
LVMWD ENGINEERING
4232 LAS VIRGENES ROAD
CALABASAS, CALIFORNIA 91302

APPROVED FOR LAS VIRGENES MUNICIPAL WATER DISTRICT
BY: _____
PRINCIPAL ENGINEER
R.C.E. 22931
DATE: _____

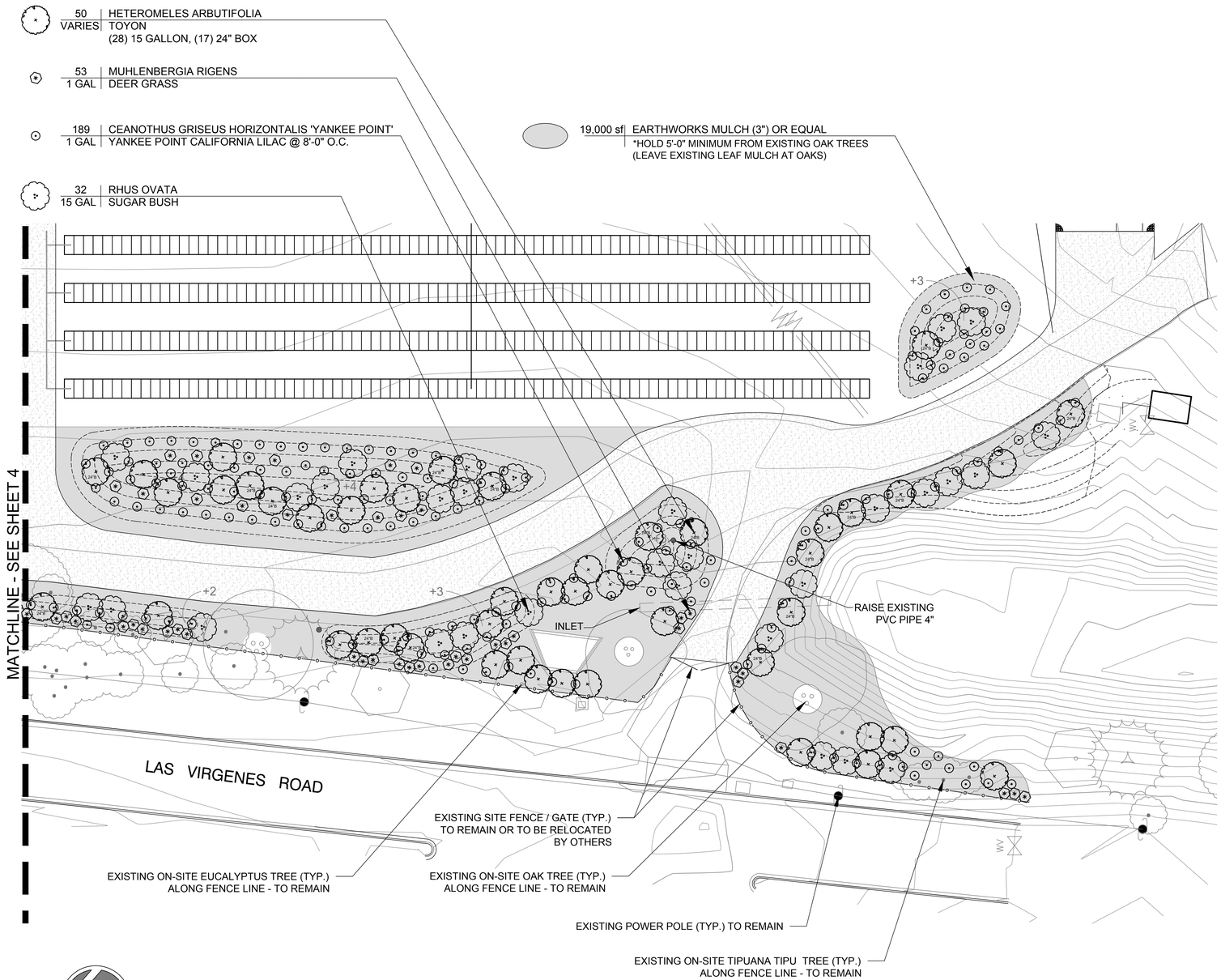
SCALE:

DATE: May 1, 2020

SHEET 4 OF 7

LAS VIRGENES MUNICIPAL WATER DISTRICT / SOLAR FACILITY / LNDG JOB #2365-03

F:\Jobs\2365-03 LVMWD - Solar Facility\ACAD\WORKING DWG\2365-03 Planting.dwg



PLANTING NOTES

1. CONTRACTOR TO PROVIDE AGRONOMICAL SOILS TESTS (A MINIMUM OF 2 LOCATIONS, AS DIRECTED BY THE LANDSCAPE ARCHITECT) UPON SIGNATURE OF BID, PRIOR TO CONSTRUCTION TO DETERMINE PROPER SOIL CONDITIONS FOR THE LANDSCAPE. SOILS TEST TO BE PRESENTED TO LANDSCAPE ARCHITECT. THE SOIL AMENDMENT, BACKFILL AND FERTILIZER MATERIALS AND QUANTITIES LISTED IN THE SOIL SPECIFICATIONS ARE FOR BID PURPOSES AND SHALL BE SUPERSEDED BY THE RECOMMENDATIONS OF THE SOILS LABORATORY. CONTRACTOR SHALL FOLLOW ALL RECOMMENDATIONS WITHIN THE SOILS REPORT.
2. PRIOR TO THE DELIVERY OF FILL (IF NECESSARY), ANY NEW SOIL REQUIRED FOR PLANTING AREAS SHALL BE ANALYZED BY A SOILS LAB FOR SUITABILITY AS TO TEXTURE AND AGRONOMIC CHARACTER, AND SHALL BE FREE OF ALL WEED SEEDS OR HARMFUL SUBSTANCES.
3. THE CONTRACTOR SHALL BE FULLY ACQUAINTED WITH THE SITE PRIOR TO CONSTRUCTION. DRAWINGS ARE DIAGRAMMATIC AND ARE GENERALLY INDICATIVE OF THE WORK TO BE COMPLETED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING AND ARCHITECTURAL FEATURES AND SITE UTILITIES. ANY DISCREPANCIES IN THE PLANS OR WITH EXISTING FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT IMMEDIATELY. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE PLANTING AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DISCREPANCIES IN AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE LANDSCAPE DESIGN. IN THE EVENT THAT NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISION NECESSARY.
4. ALL PLANTS SHALL BE NO. 1 GRADE, MODEL QUALITY, HEALTHY, DISEASE, AND PEST FREE, WITHOUT VISIBLE DAMAGE, ABRASIONS, OR DISFIGUREMENT, THEY SHALL BE SYMMETRICAL, FILL THE CONTAINER, THEY SHALL NOT BE ROOT BOUND, THEY SHALL NOT BE RECENTLY PLANTED FROM ONE CONTAINER SIZE TO THE SPECIFIED SIZE AND THEY WILL BE HEALTHY REPRESENTATIVE SPECIMENS.
5. ALL PLANT MATERIAL TO BE INSPECTED BY THE LANDSCAPE ARCHITECT AT TIME OF DELIVERY AND APPROVED PRIOR TO LAYOUT AND INSTALLATION.
6. CONTRACTOR TO FINE GRADE, RAKE CLEAN AND REMOVE ALL DEBRIS INCLUDING ALL STONES OVER 2" DIAMETER FROM PLANTER AREAS PRIOR TO PLANTING.
7. ALL PLANTING BEDS SHALL BE GRADED, AND HAVE AMENDMENTS ADDED PRIOR TO PLANTING. REFER TO GENERAL SOIL PREPARATION SPECIFICATIONS THIS SHEET.
8. ALL AMENDMENTS SHALL BE THOROUGHLY MIXED TOGETHER PRIOR TO TILLING AND THEN ROTO TILLED OVER ENTIRE PLANTING AREA.
9. SOIL PREPARATION NOT REQUIRED ON SLOPES GREATER THAN 3:1.
10. NO PLANTING SHALL TAKE PLACE UNTIL AN IRRIGATION COVERAGE TEST HAS BEEN COMPLETED AND APPROVED BY THE LANDSCAPE ARCHITECT.
11. FINAL LOCATION OF ALL TREES, SHRUBS TO BE VERIFIED IN THE FIELD BY THE LANDSCAPE ARCHITECT AND APPROVED PRIOR TO INSTALLATION. SHRUB PLANTING PER PLANTING DETAILS, SHEET LD-1.
12. PLANT ALL TREES AND SHRUBS OUT OF THE LINE OF ANY INVERTS, ETC. PLANTERS SHALL BE REGRADED TO MAINTAIN THE FLOW OF SWALES AROUND TREES.
13. LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
14. LOCATIONS AND COUNTS ARE PROVIDED FOR CONVENIENCE ONLY. CONTRACTOR TO VERIFY ALL TREE AND SHRUB COUNTS. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE PLANT MATERIAL TO FILL THE PLANTER AREAS WITH THE SPECIES AND SPACING SHOWN. CONTRACTOR TO PROMPTLY NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCY IN TREE OR SHRUB COUNTS. CONTRACTOR IS SOLELY RESPONSIBLE FOR PLANTING PER PLAN. NO EXTRAS SHALL BE ALLOWED FOR PLANT COUNT DISCREPANCIES.
15. CONTRACTOR TO SUPPLY ONLY THE PLANT MATERIALS SPECIFIED ON THE PLANS. CONTRACTOR SHALL NOT SUBSTITUTE ANY PLANT MATERIAL WITHOUT THE EXPRESS CONSENT OF THE THE LANDSCAPE ARCHITECT.
16. ALL PLANT MATERIALS DELIVERED TO THE SITE SHALL HAVE PLANT TAGS FROM PROVIDING NURSERY IDENTIFYING THE PLANT BY GENUS AND SPECIES. PLANTS WITHOUT TAGS SHALL BE REJECTED.
17. THE CONTRACTOR SHALL APPLY A 2" LAYER OF 3" EARTHWORKS MULCH (OR EQUAL AS APPROVED BY LANDSCAPE ARCHITECT) TO ALL PLANTING AREAS CONTINUOUSLY BENEATH ALL SHRUBS AT THE TIME OF PLANTING. NO MULCH SHALL BE APPLIED WITHIN 5'-0" FROM TRUNK UNDER OAK TREES. ADDITIONAL MINIMUM 1" OF 3" EARTHWORKS MULCH SHALL BE INSTALLED PRIOR TO END OF 90 DAY MAINTENANCE, MULCH SHOULD BE A TOTAL OF 3" THICK AT TURN OVER AT THE END OF MAINTENANCE .
20. LANDSCAPE CONTRACTOR SHALL PROVIDE SOIL AMENDMENTS (PLANT PIT SOIL AMENDMENTS- EARTHWORKS -SOIL AMENDMENTS WCP-33 OR EQUAL) AND A COVER MULCH (EARTHWORKS -SOIL AMENDMENTS OR EQUAL) AS PART OF THEIR BID WITH AN ALTERNATE TO OBTAIN FREE COMPOST FROM THE DISTRICT AND THE LANDSCAPE CONTRACTOR SHALL PROVIDE TRANSPORT OF THE COMPOST TO THE SITE AS WELL AS INSTALLATION. IN THE BID SCHEDULE WE WILL REQUEST THE TWO COSTS. THIS COMPOST CAN BE USED AS THE MULCH TOPPING AS WELL.

PHB
Signature
7-31-21
Revised Date
5-26-2020
Date

LAS VIRGENES MUNICIPAL WATER DISTRICT / SOLAR FACILITY / LNDG JOB #2365-03

LNDG # 2365-03 DATE: 05/01/2020

L. Newman Design Group, Inc.
■ Landscape Architecture
■ Planning
■ Horticulture
■ Biological Restoration
■ 31300 Via Colinas ■ Suite 104 ■ Westlake Village, CA 91362-3924
■ Phone: (818) 991-5056 ■ Fax: (818) 991-3478 ■ Email: LNDG @ LNDG.net

LAS VIRGENES MUNICIPAL WATER DISTRICT

SOLAR FIELD FACILITY

PLANTING PLAN

PREPARED BY:
LVMWD ENGINEERING
4232 LAS VIRGENES ROAD
CALABASAS, CALIFORNIA 91302

APPROVED FOR LAS VIRGENES MUNICIPAL WATER DISTRICT
BY: _____
PRINCIPAL ENGINEER
R.C.E. 22931
DATE: _____

SCALE:

DATE: May 1, 2020

SHEET 5 OF 7

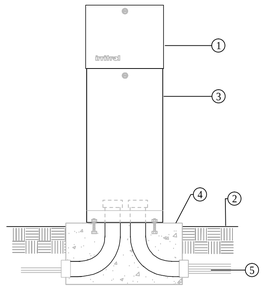
DESIGN:
DRAWN:
CHECKED:

ENGINEER'S SEAL

REV. NO.	DATE	DESCRIPTION	APPVD.	DATE

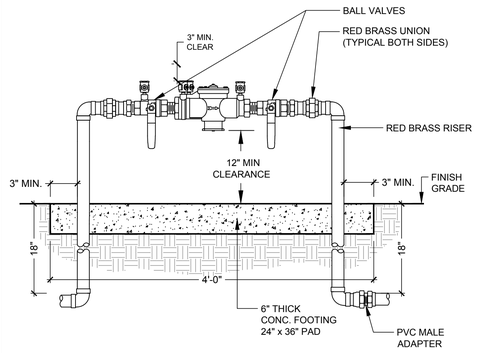
REVISIONS

F:\Jobs\2365-03 LVMWD - Solar Facility\ACAD\WORKING DWG\2365-03 Planting.dwg



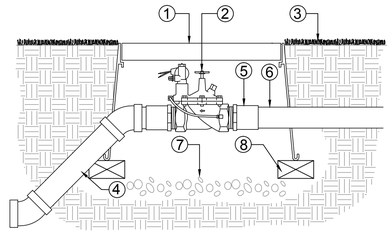
LEGEND:
1. IRRITROL MC-E SERIES AUTOMATIC SPRINKLER CONTROLLER (PEDESTAL MOUNT).
2. FINISH GRADE.
3. IRRITROL P-2B PEDESTAL FOR 4-12 STATION CONTROLLERS OR P-6B PEDESTAL FOR 18-48 STATION CONTROLLERS.
4. 24" X 18" X 18" CONCRETE FOOTING FOR PEDESTAL ASSEMBLY. ROUTE 120V AC ELECTRICAL POWER, COMMON AND CONTROL WIRES THROUGH CONDUIT AS SHOWN.
5. CONTROL WIRES TO ELECTRIC VALVES.

N.T.S. SECTION



N.T.S. SECTION

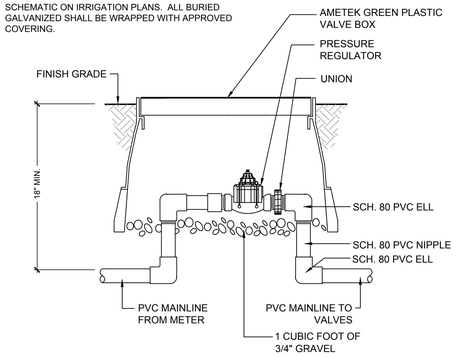
NOTE:
VALVE SHALL HAVE A MINIMUM OF 4" CLEARANCE FROM THE BOTTOM OF THE VALVE BOX LID, AND 2" MINIMUM CLEARANCE FROM THE BOTTOM OF VALVE AND TOP OF GRAVEL SUMP.



1. RECTANGULAR PLASTIC VALVE BOX
2. ELECTRIC REMOTE CONTROL VALVE
3. FINISH GRADE
4. PRESSURE SUPPLY LINE
5. PVC MALE ADAPTER (2 REQUIRED)
6. PVC PRESSURE SUPPLY LINE FROM BASKET STRAINER
7. 3/4" CRUSHED ROCK SUMP (ONE CUBIC FOOT)
8. COMMON BRICK SUPPORTS (4 REQUIRED)

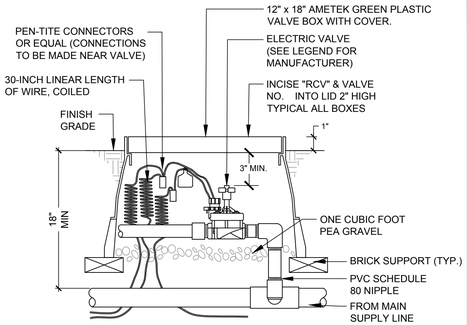
N.T.S. SECTION

NOTE:
FOR LOCATION SEE POINT OF CONNECTION SCHEMATIC ON IRRIGATION PLANS. ALL BURIED GALVANIZED SHALL BE WRAPPED WITH APPROVED COVERING.



N.T.S. SECTION

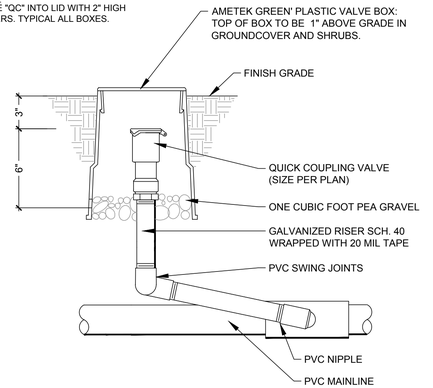
NOTE:
VALVE SHALL HAVE A MINIMUM OF 4" CLEARANCE FROM THE BOTTOM OF THE VALVE BOX LID, AND 2" MINIMUM CLEARANCE FROM THE BOTTOM OF VALVE AND TOP OF GRAVEL SUMP.



N.T.S. SECTION

A IRRITROL CONTROLLER - MC-E
ON PEDESTAL W/ WIRELESS RAIN SENSOR (RS1000)

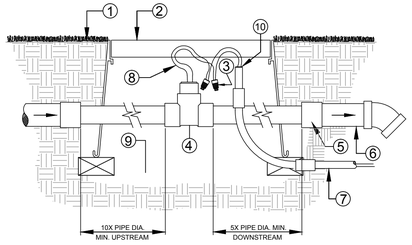
NOTE:
INCISE "QC" INTO LID WITH 2" HIGH LETTERS. TYPICAL ALL BOXES.



N.T.S. SECTION

B RP BACKFLOW DEVICE

NOTE:
VALVE SHALL HAVE A MINIMUM OF 4" CLEARANCE FROM THE BOTTOM OF THE VALVE BOX LID, AND 2" MINIMUM CLEARANCE FROM THE BOTTOM OF VALVE AND TOP OF GRAVEL SUMP.

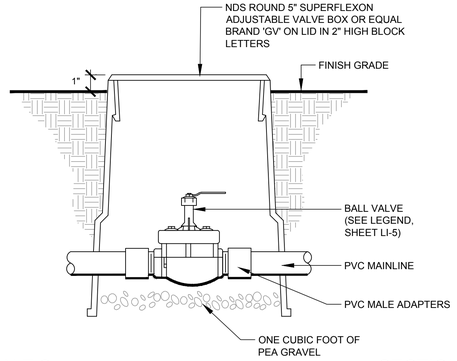


1. FINISH GRADE
2. RECTANGULAR VALVE BOX WITH LOCKING LID. BRAND 'FS' ON LID IN 2" HIGH BLOCK LETTERS
3. PENTITE CONNECTORS
4. FLOW SENSOR, REFER TO PLANS FOR MODEL NUMBER AND SIZE
5. PVC REDUCING COUPLER (2 REQUIRED)
6. PVC PRESSURE SUPPLY LINE
7. 3/4" ELECTRICAL CONDUIT AND SWEEP ELL.
8. BELDEN #9883 CABLE FROM SENSOR LEADS TO DATA DECODER,
9. 3/4" GRAVEL SUMP 1 CU. FT.
10. CONDUIT BUSHING

N.T.S. SECTION

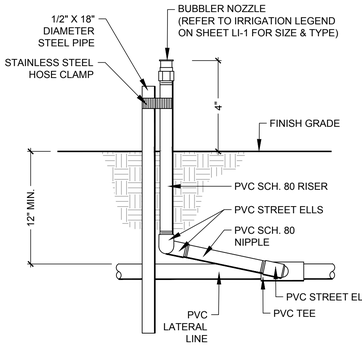
C MASTER VALVE

NOTE:
PLACE BALL VALVE AT MAINLINE DEPTH.



N.T.S. SECTION

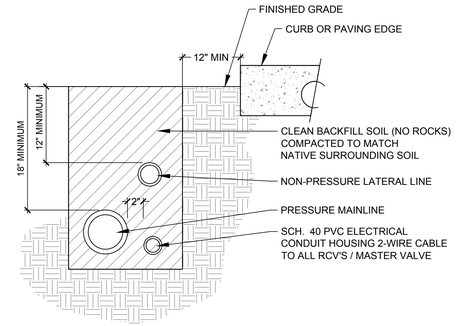
D PRESSURE REGULATOR



N.T.S. SECTION

E REMOTE CONTROL VALVE

NOTE:
1. SIDES OF TRENCH SHALL BE DUG SQUARE AND CLEANED OF ALL SHARP MATERIALS.



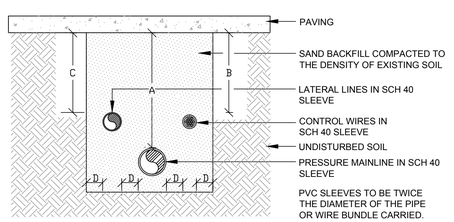
N.T.S. SECTION

F QUICK COUPLER

G FLOW SENSOR

H BALL VALVE

NOTE:
PLACE GATE VALVE AT MAINLINE DEPTH.

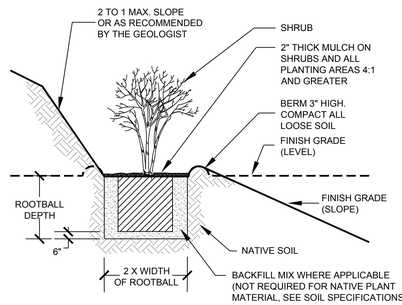


DIMENSION	A	B	C	D
1" TO 6" IN SIZE	36"	12"	12'	3"

N.T.S. SECTION

I SHRUB BUBBLER
ON FIXED RISER

NOTE:
FOR BELOW GRADE CONDITIONS, SEE SHRUB PLANTING DETAILS



N.T.S. SECTION

J IRRIGATION TRENCH

K SLEEVING APPLICATION

L SHRUB PLANTING

DESIGN:
DRAWN:
CHECKED:

ENGINEER'S SEAL

REV. NO.	DATE	DESCRIPTION	APPVD.	DATE

REVISIONS

Signature
7-31-21
Renewal Date
5-26-2020
Date

LNDG # 2365-03 DATE: 05/01/2020

L. Newman Design Group, Inc.
Landscape Architecture
Planning
Horticulture
Biological Restoration
31300 Via Colinas Suite 104 Westlake Village, CA 91362-3924
Phone: (818) 991-5056 Fax: (818) 991-3478 Email: LNDG @ LNDG.net

LAS VIRGENES MUNICIPAL WATER DISTRICT

SOLAR FIELD FACILITY

IRRIGATION / PLANTING DETAILS

PREPARED BY:
LVMWD ENGINEERING
4232 LAS VIRGENES ROAD
CALABASAS, CALIFORNIA 91302

APPROVED FOR LAS VIRGENES MUNICIPAL WATER DISTRICT
BY: _____
PRINCIPAL ENGINEER
R.C.E. 22931
DATE: _____

SCALE:

DATE: May 1, 2020

SHEET 6 OF 7

LAS VIRGENES MUNICIPAL WATER DISTRICT / SOLAR FACILITY / LNDG JOB #2365-03

F:\Jobs\2365-03 LVMWD - Solar Facility\ACAD\WORKING DWG\2365-03 Details.dwg

IRRIGATION:

1. SCOPE OF WORK

1.1 The work consists of furnishing labor, tools, machinery, materials, and procedure required to complete the sprinkler system, installed ready for use without further cost in labor or materials to the Owner.

1.2 When not otherwise specified, workmanship and material shall conform to the local plumbing code.

1.3 The Contractor shall apply for all necessary permits and pay for same.

1.4 The Contractor shall keep the premises clean and free of excess equipment, materials and rubbish incidental to this work.

1.5 The intent of the Drawings and Specifications is to indicate and specify a complete sprinkler system, installed and ready for use without further cost in labor or materials to Owner.

1.6 Any item shown or written on the Drawings or in these Specifications shall be considered to appear on both.

1.7 In the event of "conflict" between the Drawings and Specifications, the Landscape Architect shall be consulted.

1.8 Prior to submission of his bid, the Contractor shall examine the site, the complete drawings of the project and the specifications of same, in addition to the drawings and specifications for the sprinkler irrigation portion of the work.

2. REFERENCE SPECIFICATIONS AND STANDARDS

2.1 The intent of the Drawing and Specifications is to graphically indicate and specify a complete and efficient sprinkler irrigation system.

2.2 Plot dimensions are approximate. Contractor shall carefully check and verify all dimensions and shall report any variations to the Landscape Architect.

2.3 Due to the scale of the Drawings, it is not possible to indicate all offsets, fittings, etc. which may be required. Contractor shall carefully investigate the structural and finished conditions affecting all his work, and plan his work accordingly. Drawings are generally diagrammatic and indicative of the work to be installed. The work shall be installed in the most direct and workmanlike manner, so that conflicts between sprinkler systems, planting and architectural features will be avoided.

2.4 Landscape Architect/Owner's Representative shall decide all questions relative to the quality of workmanship and materials furnished.

2.5 The Landscape Architect shall decide all questions relating to the "interpretation" of the Drawings and Specifications and the acceptable fulfillment of the contract.

3. SUBSTITUTIONS

3.1 The Contractor shall furnish the articles, equipment or materials specified by name in the Drawings and Specifications. No substitution will be allowed without prior written approval by the Landscape Architect.

3.2 Equipment or materials installed or furnished without the prior approval of the Landscape Architect may be rejected and the Contractor required to remove such materials from the site at this own expense.

3.3 Approval of any item, alternate or substitute, indicates only that the product(s) apparently meet the requirements of the drawings and specifications on the basis of the information submitted.

3.4 Manufacturer's warranties shall not relieve the Contractor of his liability under the guarantee. Such warranty shall only supplement the guarantee.

3.5 The Landscape Architect can, at his option, require a manufacturer's warranty on any product offered for use.

4. IRRIGATION GUARANTEE

4.1 The entire sprinkler system shall be unconditionally guaranteed by the Contractor as to material and workmanship, including settling of back-filled areas below grade for a period of one (1) year following the date of final acceptance of work.

4.2 If, within one (1) year from the date of completion, settlement occurs and adjustments in pipes, valves and sprinkler heads, sod or paving is necessary to bring the system, sod or paving to the proper level of the permanent grades, the Contractor, as part of the work under his contract, shall make all adjustments without cost to the Owner, including the complete restoration of all damaged planting, paving, or other improvements of any kind.

4.3 Should any operational difficulties develop in connection with the sprinkler system within the specified guarantee period which, in the opinion of the Owner, may be due to inferior material and/or workmanship, said difficulties shall be immediately corrected by the Contractor to the satisfaction of the Owner at no additional cost to the Owner, including any and all other damage caused by such defects.

5. RESPONSIBILITY

5.1 The Contractor shall locate lines, valves, and other underground utilities, etc., prior to excavating trenches. The Contractor shall be held responsible for any damage to existing utilities.

6. RECORD DRAWINGS

6.1 Locations on drawings are diagrammatic and approximate only, and shall be changed and adjusted as necessary or as directed to meet existing conditions and to follow the intent of the drawings and specifications in obtaining complete water coverage. It is, therefore, the Contractor's responsibility to record any changes as to location of equipment on "as-built" drawings.

6.2 Procedure for "as-built" preparation shall be:

6.2.1 Obtain from the Landscape Architect one (1) set of reproducible drawings. Record accurately on this set all changes in the work constituting departures from the original contract drawings.

6.2.2 Dimension from two permanent points of reference (buildings, monuments, sidewalks, curbs, pavement). Post information on "as-built" drawings, day-to-day, as the project is installed. All dimensions noted on drawings shall be one-quarter (1/4) inch in size.

6.2.3 Show dimensional locations and depths of the following:

-Point of connection
-Routing of sprinkler pressure lines (dimension maximum of one-hundred (100) feet along routing and all directional changes)
-Gate valves
-Sprinkler control valves (buried only)
-Quick coupling valves
-Routing of control valves
-Other related equipment (as may be directed by the Landscape Architect)

6.2.4 Maintain "as-built" drawings on site at all times.

6.2.5 Make all changes to reproducible drawings in ink (no ball-point pen). Use eradicating fluid when redoing drawings. Make changes in a manner equal to the original drawing.

7. CONTROLLER CHARTS

7.1 "As-built" drawings shall be approved by Landscape Architect or Landscape Coordinator before charts are prepared.

7.2 Provide one controller chart of the maximum size controller door will allow, for each controller supplied, showing the area covered by automatic controller.

7.3 The chart shall be a reduction of the actual "as-built" system drawing. If the controller sequence is not legible when the drawings is reduced, enlarge it to a size that will be readable when reduced.

7.4 Chart shall be blackline print and a different pastel color used to show area of coverage for each station.

7.5 When completed and approved, hermetically seal the chart between two pieces of plastic, each piece being a minimum twenty (20) mil thickness.

7.6 Charts shall be completed and approved prior to final inspection of the irrigation system.

8. OPERATION AND MAINTENANCE MANUALS

8.1 Prepare and deliver to the Landscape Architect within ten (10) calendar days prior to completion of construction, all required and necessary descriptive material in complete detail and sufficient quantity, properly prepared in four individually bound copies. Describe the material installed in sufficient detail to permit operating personnel to understand, operate and maintain all equipment. Include spare parts list and related manufacturer information for each equipment item installed.
Each manual shall include the following:

-Index sheet stating Subcontractor's address and telephone number.
-Duration of guarantee period.
-List of equipment with names and addresses of manufacturer's local representatives.
-Complete operating and maintenance instructions on all major equipment.

8.2 In addition to the maintenance manuals, provide the maintenance personnel with instructions for major equipment and show written evidence at the end of the project that this service has been rendered.

8.3 Loose sprinkling equipment, operating keys and spare parts will be furnished by the Contractor in quantities as shown on plans or in specifications.

9. MATERIALS (NOT APPLICABLE)

9.1 Use new materials of the best grade of each respective kind and of the same manufacturers for all items of one type.

9.2 Steel pipe.

9.2.1 Steel pipe and steel fittings where indicated on the drawings or specified shall be Schedule 40 galvanized mild steel threaded pipe and beaded galvanized malleable iron threaded fittings, except couplings which shall be A.P.I. (American Pipe Institute) steel couplings. Thread on pipe and fittings shall be of taper type.

9.2.2 All unions two (2) inches and smaller shall be ground joint patter. Unions larger than two (2) inches shall be flanged unions. All flanged unions shall be placed with one-sixteenth (1/16) inch thick asbestos fiber gaskets.
Right and left couplings shall be used instead of ground joint unions in all underground lines, except at valves.

9.2.3 Steel street elbows, bushings, close nipples, and long screws shall not be used in the work.

9.3 Plastic Pipe

9.3.1 Plastic pipe shall be extruded from virgin PVC (Polyvinyl Chloride) type 1, Grade 11 (Class 1220) as manufactured by Lasco Industries, Baldwin, Pacific Western, Johns-Manville or equal. Class schedule as indicated in the legend.

9.3.2 All plastic pipe shall be continuously and permanently marked with the following information: Manufacturer's name, nominal pipe size, PVC 1220, S.D.R. (Standard Dimension Ratios, or the pressure rating in pounds per square inch) and the N.S.F. (National Sanitation Foundation).

9.3.3 Plastic fittings shall be PVC 11, I.P.S. (International Pipe Society), Schedule 40, N.S.F. and Schedule 80 threaded fittings as shown in the details as manufactured by Sloane Manufacturing Co. Solvent is to be per pipe manufacturer's recommendations.

9.4 PVC Pressure Rated Pipe Type 1120 (PVC Schedule 40)

9.4.1 Type I Grade II Pressure Rated Pipe.

9.4.2 Materials shall meet the requirements set forth in ASTM D1784-60T.

9.4.3 Outside diameter of pipe shall be the same size as iron pipe.

9.4.4 Pipe shall be marked at intervals with the following information (not to exceed 5'): Manufacturer's name, nominal size, PVC Type and grade (i.e., PVC 1220) SDR rating class, NSF approval and commercial standard designation as 256-63.

9.4.5 PVC Type I shall not be threaded.

9.4.6 PVC fittings shall be PVC Type II, Schedule 40 NSF approved.

9.4.7 Solvent shall be #175 Gray NSF approved as manufactured by Industrial Polychemical Service, Gardena California.

9.4.8 Cautioned shall be utilized in handling Type I pipe due to the possibility of cracking or of splitting when dropped or handled carelessly.

9.4.9 When connection is plastic to metal, male adapters shall be hand tightened, plus one turn with a strap wrench. Joint compound shall be Permatex Type II.

9.5 Sprinkler Heads

9.5.1 Sprinkler heads shall be as shown on plan.

9.6 Valves

9.6.1 Remote Control Valves - Electric remote control valves shall be as shown on plan.

9.6.2 Quick Coupling Valves - Quick coupling valves shall be as indicated on Plans and shall be a locking cover. Each quick coupler valve shall have a molded vinyl cover, yellow in color. All quick coupler valves keys and hose swivels shall be of same manufacturer as the quick coupler.

9.7 Automatic Controllers

Automatic controllers shall be as shown on Plans and details.

9.8 Control Wires for RCV's

All wiring to be used for connecting the automatic controller to the electrical solenoid actuated by remote control valve shall be Type UF-695V, 7-strand or solid copper, PVC insulation, single conductor, UL approved underground feeder cable. Each pilot or "hot" wire shall be color-coded with the common wire being white.

9.9 Valve Boxes
Per City of Simi Valley; See Detail G on Landscape Details, page 97 of 98.

9.10 Backflow Prevention Units

The backflow prevention units shall be as shown on Plans and Details.

9.11 Any other equipment not specifically noted herein but required by the plans, details, or legends shall be supplied and installed in strict accordance with the manufacturers recommendations. If any question arises as to proper procedure, it shall be resolved with the Landscape Architect before installation.

10. INSTALLATION

10.1 Site Conditions

10.1.1 All scaled dimensions are approximate. The contractor shall verify all dimensions on the site prior to proceeding with work under this contract.

10.1.2 Extreme care shall be exercised in excavating and working near existing utilities. Contractor shall be responsible for damage to any facilities.

10.1.3 Should utilities not located or marked be found during excavation, the Contractor shall promptly notify the Owner and shall discontinue with work in the area, except necessary emergency work necessary to repair or prevent damage until instructions are received.

10.1.4 Failure to notify the Owner of discovery of such utilities or damage thereto will result in the Contractor being liable for any and all damage caused to the utilities as a result of his actions.

10.1.5 The Contractor shall, before starting work on the sprinkler system, carefully check all finish grades to satisfy himself that he may proceed with the work.

10.2 Water Supply

10.2.1 The Owner shall arrange for the provision of the water supply. (EXISTING METER)

10.2.2 The Contractor shall connect to the water source as indicated on the drawings.

10.3 Electrical

10.3.1 The Owner shall arrange for the provision of the electrical supply. Power sources shall be as indicated on the drawings. The Contractor shall connect at the point shown on the drawings.

10.3.2 The Contractor shall be responsible for making electrical connections to the automatic controllers. All wiring shall be routed as shown on plans. All electrical work shall be in accordance with all local or county ordinances.

10.4 Existing Utilities

The Contractor shall locate and mark all existing utilities such as power, telephone, domestic water and tile drains. Extreme care shall be taken by the Contractor when excavating or working in these areas and coordination and cooperation with other Contractor is required as the work progresses to these areas.

10.5 Trenches in General

10.5.1 Trenches shall be dug straight, and pipe shall have the continuous support for the ditch bottom and shall be laid to an even grade. Trenching excavation shall follow the layout indicated on the drawings.

10.5.2 All pressure supply lines shall have a depth of eighteen (18) inches minimum unless otherwise noted.

10.5.3 All non-pressure supply lines shall have a depth of twelve (12) inches minimum as shown in the details.

10.5.4 All lines shall have a minimum clearance of six (6) inches from each other and from lines of other trades.

10.5.5 No line shall be installed directly over another line.

10.5.6 If necessary, call Underground Alert, or similar company.

10.6 Backfilling

10.6.1 Backfill for trenching shall be compacted to dry density equal to the adjacent undisturbed soil, and shall conform to the adjacent grades without dips, sunken areas, humps or other irregularities. Initial backfill on all lines shall be of a fine granular material with no foreign matter larger than one-half (1/2) inch in size.

10.6.2 If, in the opinion of the Contractor/Landscape Architect, the excavated material is not satisfactory for use as backfill, the Contractor shall dispose of this unsatisfactory material.

10.6.3 The Contractor shall be responsible for any settling of trenches from his work.

10.7 PVC Pipe

10.7.1 PVC pipe shall be installed in a manner which will provide for expansion and contraction as recommended by the pipe manufacturer.

10.7.2 All plastic to metal joints shall be made with plastic male adapters, unless otherwise shown in details.

10.7.3 The joints shall be allowed to set at least twenty-four (24) hours before pressure is applied to the system on PVC pipe.

10.7.4 After all new sprinkler piping and risers are in place and connected, and all necessary work as been completed and prior to the installation of sprinkler heads, control valves shall be opened and a full head of water used to flush out the system. After the system is thoroughly flushed, riser shall be capped off and the system pressure tested.

10.7.5 Sprinkler lines shall be tested in place before backfilling for a period of not less than twenty-four (24) hours and shall show no leakage or loss of pressure, During the test period, minimum test pressure at the highest point of the section being tested, shall be 100 pounds per square inch.

10.7.6 At the conclusion of the pressure test, the head shall be installed and tested for operation in accordance with design requirements under normal operating pressure, Contractor shall verify head pressures with pilot tube a and adjust valve to correspond with design pressure.

10.8 Sprinklers

10.8.1 All nozzles on pop-up sprinklers shall be provided with ells and shall be adjusted to the proper height. All nozzles shall be adjusted for proper throw radius for efficient coverage.

10.8.2 Sprinkler heads and risers shall be installed according to details.

10.9 Valves

10.9.1 Remote control valves shall be adjusted so that the most remote sprinkler heads operate at the pressure recommended by the head manufacturer. Remote control valves shall be adjusted so that a uniform distribution of water is applied by the sprinkler heads to the planting areas for each individual valve system.

10.9.2 Quick coupling valves shall be set in valve boxes approximately 12" from walks, curbs, headerboards, or paved areas where applicable. Vertical positioning of quick coupling valves shall be such that sleeve top will be flush with the settled finish grade as determined after the turf is established and 3" above grade in ground cover areas.

10.10 Valve Boxes (Need Permanent Markings- Branded)

10.10.1 Valve boxes shall be set one-half inch (1/2") above the designated finish grade in lawn areas and two inches (2") above finish grade in ground cover areas.

10.10.2 Valve boxes installed near walks, curbs, headerboards and paving shall abut those items. Top surfaces shall be flush with items listed above.

10.11 Automatic Controller Location and Installation

10.11.1 The automatic controller shall be installed at the approximate location shown on the Plan. Verify exact location with the owners representative

10.11.2 All local and other applicable codes shall take precedence in connecting the 110 volt electrical service to controller. Owner shall provide power to controller. Contractor shall complete hook-up to controller.

10.11.3 There shall be adequate coverage of earth (18" minimum) over the 24-volt control wire. Install wire in trench and tape to main lines on side of pipe at 10' intervals.

10.12 Control Wire

10.12.1 All electrical equipment and wiring shall comply with local and state codes and be installed by those skilled and licensed in the trade.

10.12.2 Connecting and splicing of wire at the valves or in the field shall be made using a Pen-Tite connector or equal.

10.14 Pressure Test

10.14.1 All pressure lines shall be tested under pressure with water and air of one-hundred sixty (160) pounds per square inch, and all non-pressure lines shall be tested under the existing static pressure, and both be proven watertight.

10.14.2 Pressure shall be sustained in the lines for a 24 hour period. If leaks develop, the joints shall be replaced and the test repeated until the entire system is proven watertight.

10.14.3 Test shall be observed and approved by the Owner prior to backfill.

10.14.4 Upon completion of each phase of the work, the Contractor shall check and adjust each sprinkler head to meeting the site requirements.

10.15 Coverage Test

Upon completion of all systems, the Contractor, in the presence of the Architect, shall perform a coverage test to determine if the coverage of water afforded all areas is complete and adequate. The Contractor shall change any heads, nozzles, or orifices as may be required to provide coverage as indicated on the drawings and as specified.

10.16 Lowering of Heads (NOT APPLICABLE)

Unless otherwise noted, all sprinklers installed in lawn areas shall be lowered to finish grade within five days following notification by the Owner. At the time of lowering heads, the Contractor shall completely check and adjust the entire system and make any repairs that are necessary to complete this work to the satisfaction of the Owner. Landscape Architect and/or Owner's chosen representative. The Contractor shall notify the Owner in writing upon completion of this work.

10.17 Workmanship and Procedure

10.10.1The routing of the pressure supply lines as indicated on the drawings is diagrammatic. The Contractor shall install lines in a manner that conforms with the various details, without offsetting the various assemblies from the pressure supply line.

10.10.2 No multiple assemblies shall be installed on plastic lines. Each assembly shall be provided with its own outlet.

10.10.3 All assemblies specified herein shall be installed in accordance with the respective detail. In the absence of detail drawings or specifications pertaining to the specific items required to complete the work, the Contractor shall perform such work in accordance with the best standard practice and to the satisfaction of the Landscape Architect/Contractor.

11. INSPECTION OF WORK

11.1 Installations and operations must be approved by the Owner and Landscape Architect.

11.2 Prior to commencing work, the Contractor shall arrange a meeting with the Owner, at which time the Contractor will be informed of specific inspections required and the method of calling for such inspections as the individual work is completed.

12. RESPONSIBILITY

12.1 The Contractor shall be responsible for all work to be performed under this contract. No Contractor shall be relieved of his liability to complete the work shown on the drawings and indicated in the specifications, unless authorized in writing by the Owner or Owner's approved representative.

12.2 The Contractor shall protect his work from damage and theft at all time, and replace all damaged or stolen parts at his expense until the work is accepted in writing by the Owner.

12.3 The Contractor shall protect the Owner's property from injury or loss. All damage to existing property (buildings, utilities, etc.) or planting (trees, shrubs, lawns or groundcovers) caused by the Contractor during his operation or as a result of malfunction of installed work during the guarantee period shall be repaired at the Contractor's expense.

12.4 The Contractor shall carefully note all finish grade before commencing work. Any finish grade changed during the course of his work shall be restored to the original contours.

12.5 The Contractor shall cause minimum interference with workmen or the materials and equipment of other trades people working on the project.

13. COMPLETION CLEAN-UP

Upon completions of work, the Contractor shall remove excess materials, rubbish, debris, etc., and his construction and installation equipment from the premises.

PLANTING:

1. SCOPE OF WORK

1.1 The work of this section includes all labor, materials and equipment required to complete work indicated on the drawings. The work shall be performed in accordance with the best standards of practice relating to the various trades, and will be under the continuous supervision of a competent foreman, capable of interpreting the drawings and these specifications. The work included in this section is as follows:

-Finish Grading for Planting
-Soil Preparation
-Fertilization
-Planting, including Lawns
-Maintenance
-Inspection and Certifications
-Guarantees
-Clean-Up
-Staking, Guying and Espalliering
-Miscellaneous Allowance

All work of every description mentioned in the specifications and/or amendments thereto, and all other labor and materials that are reasonably incidental to the satisfactory completion of the work, including site clean-up.

1.2 Bidders are expected to visit the site to familiarize themselves with existing conditions.

1.3 The Contractor shall adequately protect the work, adjacent property, and the public; he shall be responsible for any damage, injury or loss due to his actions or lack of action.

1.4 All of the provisions of the general and special conditions and any subsequent addenda shall apply to this section as though written full herein.

2. INSPECTIONS

2.1 Inspections will be made by the Landscape Architect. The Contractor shall be on the site when inspections are made.

2.2 Inspection is required for the following:

-Upon completion of grading and soil conditioning, prior to planting
-When plants are delivered to the site.
-When trees and shrubs are spotted for planting, but before planting holes are excavated.
-When planting and all other specified work, except the maintenance period, has been completed.
-At end of maintenance period.

3. GUARANTEE

3.1 All trees, shrubs and plant material size shall be guaranteed for a period of one year. All guarantee periods commence from the time of final acceptance by the Landscape Architect/Owner.

3.2 As soon as weather permits, replace all dead plants and all plants not in vigorous condition, as noted during the maintenance period.

3.3 Plants used for replacements shall be the same kind and size as originally planted. They shall be furnished, planted and fertilized as specified and guaranteed.

4. PROCEDURES

4.1 All sprinkler work shall be inspected and approved prior to the start of any work in this section.

4.2 Prior to excavation for planting or placing of stakes, locate all utilities, electric cables, conduits, sprinkler lines, heads, valves and valve control wires, and all utility lines so that proper precautions may be taken not to damage such improvements. In the event of a conflict between such lines and plant locations, promptly notify the Landscape Architect who shall arrange for relocation for one or the other. Failure to follow this procedure places responsibility upon the Contractor for any and all repairs for damages incurred as a result.

4.3 Plant materials shall be furnished in the quantities and/or spacing as shown or noted for each location, and shall be of the species, kinds, sizes, etc. as symbolized on the drawings. Any plant list has been prepared by the Landscape Architect as a convenience to the Contractor and no responsibility for its accuracy is assumed; the Landscape Contractor must verify all sizes and quantities.

4.4 All scaled dimensions are approximate. Before proceeding with any work, the Contractor shall carefully check and verify all dimensions and quantities, and shall immediately inform the Landscape Architect and Owner of any discrepancy between the drawings and/or specifications and the actual conditions. No work shall be done in any area where there is such a discrepancy until approval for same has been given by the Landscape Architect and Owner.

5. CERTIFICATION

Prior to job acceptance, written certifications shall be submitted to the Landscape Architect for the following:

5.1 Quantity and quality of commercial fertilizer and organic fertilizer.

5.2 Quantity and quality of all soil amendments called for by Plans and Specifications.

5.3 Quantity and quality of all hydroseed mix called for by Plans and Specifications.

6. MATERIALS

6.1 Plant Materials

Plant Materials indicated on the drawings and herein specified shall conform to the following:

6.1.1 Nomenclature: Plant names indicated or listed on the drawings conform to "Standard Plant Names", established by the American Joint Committee on Horticulture.

6.1.2 Condition: Plants shall be symmetrical, typical for variety and species, sound, healthy, vigorous, and free from plant disease and insect pests or their eggs. They shall have healthy, normal root systems (well filling their containers, but not to the point of being root bound). Plants shall not be pruned prior to delivery, except as authorized by the Landscape Architect or his representative. In no case shall trees be topped before delivery.

6.1.3 Inspection: All plant materials shall be subject to the inspection and approval of the Architect or his representative before planting, both at the nursery and on the project site.

6.1.4 Sizes of Plants: (As stated on the Plans and Planting Legend). Container stock (one (1) gallon, five (5) gallon and fifteen (15) gallon) shall have grown in containers for at least one (1) year, but not over two (2) years. Flat stock shall be grown in their flats for at least six (6) months.

6.1.5 Substitutions: Substitutions for the indicated plant materials will be permitted, provided the substitute materials are approved in advance by the Landscape Architect and the substitutions are made at no additional cost to the Owner. Except for the variations so authorized, all substitute plant materials shall conform to the requirements of these specifications. If the accepted substitute materials are of less value than those indicated or specified, the contract price will be adjusted in accordance with the provisions of the contract.

6.1.6 Plants Not Approved: Plants not approved are to be removed from site immediately and replaced with suitable plants. The Landscape Architect and/or Owner reserves the right to reject entire lots of plants represented by defective samples. Reason for rejecting plants (trees) may include, but not be limited to: loose root balls, co-dominant branching structure, crowded or x-crossing branches, kinked or girdled roots, lack of uniform distribution of crown leaders, foliage color off color, damaged or scared truck tissue, lateral branches are greater than 2/3 the diameter of the trunk, or measured 1" above the branch.

6.2 Construction Materials

Construction materials indicated on the drawings and herein specified shall conform to the following:

6.2.1 Soil mix and fertilizers as per plan

6.2.2 Nitrogen-stabilized sawdust shall be bulk, with the following nitrogen content based on dry weight:

0.5% for Redwood Shavings
0.7% for Fir Sawdust
1.0% for Bark or Pine Bark or Mixture

6.2.3 Mounds - The general contractor on-site has placed soil on the South side of the road. The landscape contractor shall provide berms on the North side of the road. Contractor shall coordinate any fill necessary to complete the berms.

6.3 Staking and guying materials shall be per details on Plan.

7. INSTALLATION (PREPARATORY)

7.1 Site Clearance

7.1.1 All planting areas shall be cleared of all debris including rocks over two (2) inches in diameter and clumps of earth that will not break after finished grades have been established.

7.1.2 All planting areas shall have all noxious weed removed whenever they are found at any stage of the work, regardless of the later application of soil sterilents.

7.1.3 It is understood that the Contractor shall accept the conditions of the site upon submittal of bid, except where extensive sub-grade obstruction of native rock or debris by others is encountered.

7.2 Rough Grade by others.

7.3 Finish Grade.

7.3.1 Do not work the soil when moisture content is so great that excessive compaction will occur, nor when it is so dry that dust will form or clods will not readily break up.

7.3.2 Remove and dispose of all soil in planting areas that contain any deleterious substance, such as plaster, concrete, gasoline, solvents, etc. Remove the soil to a minimum depth of six (6) inches or to the level of dryness in the affected areas. The affected soil shall be replaced with native or imported soil as required. The Contractor shall be responsible or any damage to installed plants caused by such substances.

7.3.3 If the area to be landscaped is not acceptable to the Contractor, he shall notify the Landscape Architect in writing.

7.3.4 Prior to finish grading, loosen all planting areas to a depth of eight (8) inches (to allow for addition of soil conditioners).

7.3.5 Make minor grade adjustments as directed by the Landscape Architect.

7.3.6 Where designed drainage meets an obstruction, warp grades so that no water collects.

7.3.7 Use water trucks and sprinklers as required to control all airborne dust caused by grading operations.

7.3.8 Finish-grade all planting areas to a smooth and even condition, making certain that no irregularities remain. Remove and dispose of all foreign materials, clods and rocks over one & one-half (1-1/2) inches in diameter within three (3) inches of the surface. Provide that grade which, after conditioning and planting, is one & one-half (1-1/2) inches below the tops of curbs and walks, sloping to drain to adjacent roadway, drain swales or catch basin.

7.4 Soil Conditioning

7.4.1 All planting areas with a grade of 3:1 or flatter shall have "soil amendments" incorporated evenly into the top four (4) to six (6) inches.

7.4.2 Soil Amendments shall be as specified on the plan.

7.4.3 Certification in writing from the Contractor stating that the amendments as specified have been installed, shall be required. Certification must be submitted to the Landscape Architect before planting operations start.

8. INSTALLATION (PLANTING)

8.1 General Planting

8.1.1 No planting shall be done until all operations in conjunction with the installation of the sprinkler system have been completed, final grades have been established, the planting areas have been properly graded and prepared as herein specified and approved by the Landscape Architect.

8.1.2 The relative position of all trees and plants is subject to approval by the Landscape Architect and the Owner. They shall, if necessary, be relocated as directed, as part of the contract.

8.1.3 All plants shall be removed from their container and set so that when settled, the root ball is equal or slightly higher than the surrounding soil surface. Each plant shall be planted in the center of the hole and backfilled unless otherwise specified with the prepared soil. No soil in muddy condition shall be used for backfilling. No filling will be permitted around trunks or stems. All broken or frayed roots shall be properly cut off.

8.1.4 The Landscape Architect and/or Owner shall supervise the placing and planting of all plant materials.

8.2 Planting of Trees

8.2.1 Position plants in plant locations indicated on drawings and secure approval before excavating holes, making necessary adjustments as indicated.

8.2.2 All holes for trees shall be dug round, with bottoms level. Compacted soil at sides and bottoms shall be loosened by scarifying or other approved method. Holes shall be backfilled with "prepared soil" to the required grade, and the balance of the pit filled with "prepared soil", thoroughly settled by water application. Size of holes shall be per detail on plan. The trunk flares (root crown) shall be evident and free of any container soil and/or planting backfill. The flare root shall be slightly above the surface of the surrounding soil at all times. When planting on slopes, the top most root in the root ball shall be even with the grade on the uphill side of the tree.

8.2.3 Prepare depressed water basin as wide as plant balls at each plant. Water thoroughly, backfilling any voids with additional prepared planting mix.

8.3 Planting of Shrubs

8.3.1 Shrubs shall be planted in holes sized per detail. When the plant has been properly set, the hole shall be filled to the required grade with "prepared soil" and thoroughly settled by tamping and watering.

8.3.2 Prepare a depressed water basin as wide as plant balls at each plant. Water thoroughly, backfilling any voids with additional prepared planting mix.

8.4 Planting of Ground Covers (NOT APPLICABLE)

8.5 Care of Plants Before and During Planting

Plants shall not be allowed to dry out before or while being planted. Keep exposed roots moist by means of wet sawdust, peat moss, or burlap at all times during planting operations. Do not expose roots to the air except while being placed in the ground. Wilted plants, whether in place or not, will not be accepted and shall be replaced at the Contractor's expense.

8.6 Watering Basins

8.6.1 Construct a firmly compacted mound of soil around each plant to form a watering basin at the edge of and following the shape of the planting holes area. Mounds for trees and vines from five (5) gallon or larger containers, shall be at least four (4) inches high. Mounds for all other plants not otherwise specified shall be at least two (2) inches high. Excavated earth, if capable of retaining water, may be used. Any settlement within the basins after watering shall be refilled to the required grade with prepared soil, and additional nitrogen stabilized sawdust worked into the surface as required to restore the mulched condition.

8.6.2 At the end of the maintenance period, all watering basins in lawn areas shall be leveled to finish grade and the area shall be sodded with the specific sod.

8.7 Sodded Lawn (NOT APPLICABLE)

8.8 Weed Eradication Program

8.8.1 Manually remove all existing vegetation within scope of work and dispose off-site.

8.9 Hydroseed (NOT APPLICABLE)

8.10 Staking and Guying of Large Shrubs

8.10.1 Stake shrubs as detailed on the plans.

8.10.2 Alterations or eliminations must be approved by the Landscape Architect.

8.11 Watering

8.11.1 Immediately after planting, water should be applied to each tree and shrub by means of a hose. The water shall be applied in a moderate stream in the planting holes, until the material around the roots is completely saturated from the bottom of the hole to the top of the ground.

8.11.2 Apply water in sufficient quantities and as often as seasonal conditions require, to keep the ground wet well below the root system of grass and shrub plantings at all times.

9. MAINTENANCE

Maintenance work shall consist of applying water, weeding, caring for plants, and performing the following final plant establishment work:

9.1 Two applications of a pre-emergence shall be required. A minimum of one application at the end of the 365 day maintenance period and the remaining in spring prior to bud break.

9.2 The entire project to be maintained for a period of 365 calendar days. This shall commence at the time that all of the work has been completed to the satisfaction of the Landscape Architect/Owner, and the Contractor has been notified of such in writing.

9.3 Water areas until acceptance of work. The Contractor shall maintain the areas for at least 365 calendar days. If the above and following conditions are not complied with, the Contractor will maintain the areas until acceptable to the Landscape Architect/Owner.

9.4 All plants and planted areas shall be kept well watered and weed free at all times. Weeds, Dallas and Johnson grass and natural Bermuda grass shall be removed.

9.5 The entire project shall be so cared for that a neat and clean condition will be presented at all times to the satisfaction of the Landscape Architect/Owner.

9.6 Make two (2) applications of 16-6-8 fertilizer at the rate of six (6) pounds per one-thousand (1,000) square feet. The first application should be made approximately sixty (60) days after planting. The second application to be applied thirty (30) days prior to the end of the 365 day maintenance period.

9.7 Prior to final acceptance, the Contractor shall make sure that all staking is intact and loose enough not to cause girdling of the tree for at least a six (6) month period.

9.8 In order to expedite the plant establishment work, the Contractor shall maintain a sufficient number of men and adequate equipment to perform the work herein specified and from the time all planting is done until the end of the final 365 calendar day period.

9.9 The Contractor may be relieved from maintenance work when the plant establishment work has been completed to the satisfaction of the Landscape Architect/Owner at the end of the 365 day period.

9.10 Damage to the planting areas shall be replaced immediately. Depressions caused by vehicles, bicycles or foot traffic to be filled with topsoil and leveled. Replant damaged areas.

9.11 Natural Bermuda grass (if present) will be sprayed with a chemical weed killer as soon as the new shoots emerge. Applications shall be per manufacturer's recommendations.

9.12 No monofilament line-type grass trimmers (i.e. "weedeaters", etc.) shall be used at the base of any shrub, tree, or tree stake at any time.

9.13 Monthly maintenance reports shall be submitted to Water Works District #1 and copy forwarded to the Landscape Architect for record keeping purposes.

9.14 Water Management Program

9.14.1 Contractor shall consistently maintain all components of the irrigation system in proper working order, as per manufacturers specifications, by inspecting the entire system on an ongoing basis.

9.14.2 Drip lines and spray heads shall be randomly checked on an ongoing basis such that the entire system is checked each month. Malfunctioning systems will be corrected immediately. Methods of detection include: visual sightings of water on association hardscape and property, soil probing, meter monitoring and specified line observations.

9.14.3 Irrigation controllers and irrigation scheduling shall be preformed regularly as weather changes (ET), plant needs, and water budget allocations. (100% ET) to avoid water penalty charges. Rescheduling may be required as frequently as on a weekly basis depending on weather conditions.

9.14.4 Irrigation system pressure shall be checked and adjusted at least monthly to insure efficient operation of irrigation stations.

9.14.5 All irrigation replacement parts shall be as original installation or approved equals.

9.14.6 The water budget allocation for the association grounds is 100% of actual weather (ET or evapotranspiration) multiplied by the site acreage. Based on the water needs of the majority of plant materials and the use of efficient irrigation systems, it is assumed that water use can and will consistently fall below the 100% ET allocation. Appropriate water management will produce a healthier landscape and save significant costs.

9.14.7 Irrigation scheduling will be performed to encourage deep roots, including deep watering through use of multiple repeat cycles.

9.15 Shrub Management Program

9.15.1 Pruning shall be done on an as needed basis only. Shrubs are intended to fill planting spaces as much as possible. Shrubs are not to be pruned or shaped, but are to be allowed to spread naturally.

9.15.2 Shearing back of shrub stems and branches is not encouraged unless the plant poses a safety hazard, or unless directed by the Customer.

9.15.3 Shrub irrigation will approximate WUCOLS (ApogeixV) water use recommendations for typical shrub species, generally 50% of local ET.

9.16 Groundcover Management Program (NOT APPLICABLE)

9.17 Pruning Requirements

For the lifetime of this permit, Applicant shall adhere to the Landscape Maintenance Requirements as follows:

9.17.1 Trees may be thinned to eliminate crowding or x-crossing branches, to remove dead or broken limbs or to remove structurally weak branch attachments.

9.17.2 Tree canopies shall not be topped (to remove or cut the top of tree) or pollarded (to cut back trunk to promote growth of a dense head of foliage) in accordance with the American National Standards Institute, ANSI, A-300.

10. FINAL INSPECTION FOR ACCEPTANCE

10.1 Inspection of the work will be made by the Landscape Architect/Owner at the request of the Contractor to determine acceptability of the work following the maintenance period.

10.2 Any bare spots must be replanted and rooted and all clean-up completed prior to acceptance of a specified area.

11. WRITTEN NOTICE

At the end of the specified maintenance period, the Contractor shall present written notice to Water Works District #1 as that he has completed the required maintenance, and that any further maintenance will be the responsibility of the Water Works District #1.

12. CLEAN UP

Upon completion of work, the Contractor shall remove all equipment, material and debris resulting from his work from the site.

I LICENSED LANDSCAPE ARCHITECT — Signature — 7-31-21 Renewal Date — 5-26-2020 Date — STATE OF CALIFORNIA

DESIGN:
DRAWN:
CHECKED:

ENGINEER'S SEAL

REV. NO.	DATE	DESCRIPTION	APPVD.	DATE

REVISIONS

LNDG # 2365-03 DATE: 05/01/2020

L. Newman Design Group, Inc.

■ Landscape Architecture
■ Planning
■ Horticulture
■ Biological Restoration

■ 31300 Via Colinas ■ Suite 104 ■ Westlake Village, CA 91362-3924
■ Phone: (818) 991-5056 ■ Fax: (818) 991-3478 ■ Email: LNDG @ LNDG.net

LAS VIRGENES MUNICIPAL WATER DISTRICT

SOLAR FIELD FACILITY

SPECIFICATIONS

PREPARED BY:

LVMWD ENGINEERING
4232 LAS VIRGENES ROAD
CALABASAS, CALIFORNIA 91302

APPROVED FOR LAS VIRGENES MUNICIPAL WATER DISTRICT

BY: _____

PRINCIPAL ENGINEER
R.C.E: 22931

DATE: _____

SCALE:

DATE: May 1, 2020

SHEET 7 OF 7

LAS VIRGENES MUNICIPAL WATER DISTRICT / SOLAR FACILITY / LNDG JOB #2365-03

LAS VIRGENES - TRIUNFO JOINT POWERS AUTHORITY
4232 LAS VIRGENES ROAD, CALABASAS, CA 91302
(818) 251-2200

PROJECT NOTICE UPDATE:

Solar Generation Project Phase II - Clean Energy to Power Water and Wastewater Utilities Project

The Las Virgenes - Triunfo Joint Powers Authority Board (JPA) approved the JPA Solar Generation Project Phase II - Clean Energy to Power Water and Wastewater Utilities Project on November 15, 2018. The project is located adjacent to the existing Phase I (1 Megawatt solar project) near Las Virgenes Municipal Water District headquarters at 4232 Las Virgenes Road, Calabasas, CA 91302 (see attached project location map).

The project is expected to save our customers over $10 million while providing clean energy for water distribution and wastewater treatment. The project team has completed funding and design for the project. Construction is scheduled to begin in April of 2020 with an anticipated completion date in September of 2020.

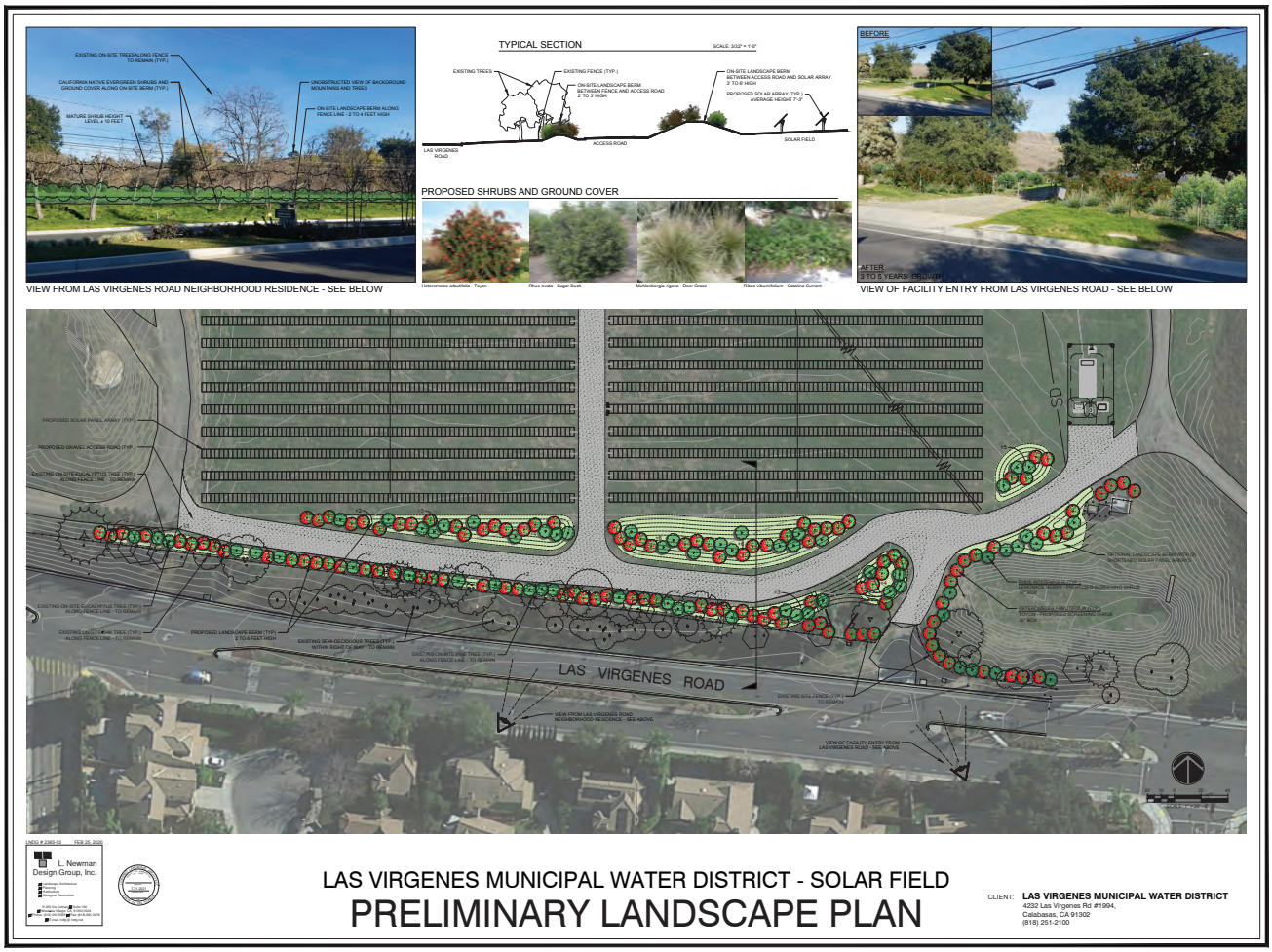
A public workshop is scheduled to be held on Tuesday, March 17, 2020 at 6:00 p.m. in the Board Room of Las Virgenes Municipal Water District headquarters, located at 4232 Las Virgenes Road, to inform the public of upcoming construction activities and solicit input from residents regarding the proposed landscape design which will minimize the visual impacts of the project to Las Virgenes Road and the adjacent neighborhoods.

Tuesday, March 17, 2020 - 6:00 p.m.
4232 Las Virgenes Road
Calabasas, CA 91302

If you wish to learn more about the project or have questions or concerns prior to the meeting, you are encouraged to review the Initial Study/MND by visiting LVMWD.com/SolarPanelProject or contact Mike McNutt, Public Affairs and Communications Manager at 818-251-2124

Jay Lewitt
Chair, Las Virgenes-Triunfo
Joint Powers Authority
President, Las Virgenes Municipal Water District
Board of Directors

James Wall
Vice Chair, Las Virgenes-Triunfo
Joint Powers Authority
Chair, Triunfo Sanitation District
Board of Directors



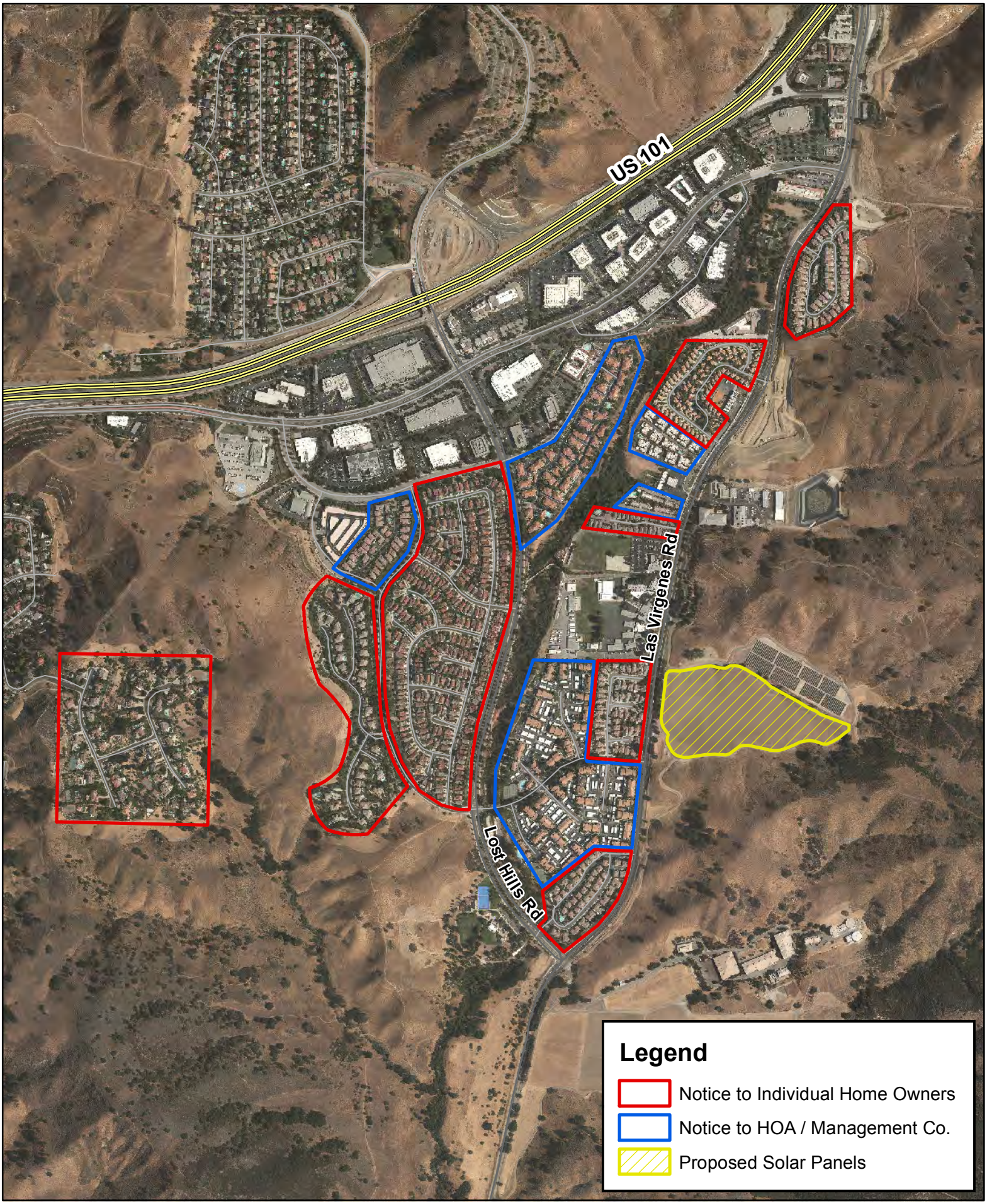
Frequently Asked Questions:

1. *Will the project impact any views?*
   Due to the site's limited visibility, which is concealed by the terrain or screened by landscaping, the project will not substantially alter the visual character or quality of views from public vantage points.

2. *Will the panels produce glare?*
   No. The panels will be a similar design to the existing non-glare panels already in place adjacent to this project.

3. *How will the project benefit the community or me?*
   The project will reduce electrical costs by an estimated $10.3 million over a 25-year period for the operation of our wastewater facilities such as the Tapia Water Reclamation Facility. These savings will be passed on to our valued customers. The project will also help us do our part in reducing greenhouse gas emissions. This reduction will amount to the equivalent of taking 1,200 cars off the road or planting 6,600 acres of trees to sequester the carbon dioxide from an equivalent-sized coal or natural gas plant.

4. *When will the project be under construction and completed?*
   Construction is tentatively scheduled to begin in April of 2020 and is set to be completed by September of 2020.



0 250 500 1,000
Feet

Solar Generation Project Phase II
CEQA Document Distribution of
Notice of Completion Boundary Map

N
W E
S

September 15, 2020 LVMWD Regular Board Meeting

TO: Board of Directors

FROM: Engineering and External Affairs

Subject : 2020 Urban Water Management Plan: Award

SUMMARY:

California Water Code §10610 through §10656 and §10608 mandate that every urban water supplier of a certain size prepare and submit an Urban Water Management Plan (UWMP) to the California Department of Water Resources every five years. Staff issued a Request for Proposals on August 13, 2020, for preparation of the District's 2020 UWMP. Four engineering firms submitted responses. Staff reviewed the proposals and recommends that the Board accept the proposal from Stantec Consulting Services, Inc., in the amount of $64,023, to prepare the 2020 UWMP.

RECOMMENDATION(S):

Accept the proposal from Stantec Consulting Services, Inc., and authorize the General Manager to execute a professional service agreement, in the amount of $64,023, for preparation of the 2020 Urban Water Management Plan.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

Sufficient funds are available for this work in the adopted Fiscal Year 2020-21 Budget. No additional appropriation is required.

DISCUSSION:

The Urban Water Management Planning Act (California Water Code §10610 through §10656 and §10608) mandates that every urban water supplier that either provides over 3,000 acre-feet of water annually, or serves more than 3,000 service connections, prepare and submit an Urban Water Management Plan (UWMP). UWMPs are prepared every five years and support long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs. The effort also assists with forecasting water supply demands and identifying conservation needs that align with the latest state requirements. The District completed its 2015 UWMP with the assistance of Kennedy Jenks Consultants. The 2010 UWMP was completed with the assistance of Carollo Engineers.

This scope of services under the proposed contract would include the background work, coordination, analysis and preparation of documents necessary to complete the District's submission of the 2020 UWMP to the California Department of Water Resources (CADWR) by the June 17, 2021 deadline. The work includes a required public hearing and preparation of a resolution for the Board to adopt the 2020 UWMP. Staff's goal is to complete a final draft 2020 UWMP no later than April 2021, and submit the final UWMP to the CADWR no later than June 17, 2021.

Following is a schedule for the effort:

Proposal Due Date (3:00 p.m.)	August 13, 2020
Acceptance of Proposal (Board meeting)	September 15, 2020
Preliminary Draft UWMP 2020	January 8, 2021
Presentation of Draft UWMP to Board	February 2, 2021
Public Hearing for UWMP (w/60 days' notice)	February 2, 2021
Final Draft 2020 UWMP	April 20,2021
Board Resolution Adopting 2020 UWMP	May 5, 2021
Final UWMP Submitted to State DWR	June 17, 2021

**Dates are subject to DWR guidelines*

Based on the schedule, a Request for Proposal was issued on August 13, 2020. The District received four proposals: Carollo ($87,890), Kennedy Jenks ($70,195), Stantec ($64,023) and West & Associates Engineers ($39,000). Staff reviewed the proposals received and recommends accepting the proposal from Stantec for the 2020 UWMP. Upon review of the proposals, Stantec displayed a strong understanding of the challenges facing the District, assembled a strong team to address all aspects of the UWMP, and drew on their experience completing the Seasonal Storage Plan of Action and Basis of Design Reports for the JPA, which will be considered as part of the documentation for the 2020 UWMP.

GOALS:

Provide Safe and Quality Water with Reliable Services

The Urban Water Management Plan will help to guide the District's water supply strategies, conservation targets and overall management of its water resources.

Prepared by: Oliver Slosser, P.E., Senior Engineer

ATTACHMENTS:

REQUEST FOR PROPOSALS
FOR
2020 URBAN WATER MANAGEMENT PLAN
(UWMP)

PROPOSALS DUE August 17, 2020 at 3:00 p.m.

LAS VIRGENES MUNICIPAL WATER DISTRICT
4232 LAS VIRGENES ROAD
CALABASAS CA 91302
818.251.2100

July 21, 2020

REQUEST FOR PROPOSALS
Las Virgenes Municipal Water District

TABLE OF CONTENTS

I. Introduction
II. Background Information
III. Scope of Work
IV. Project Schedule
V. Proposal Instructions
VI. Selection Criteria/Evaluation
VII. Appendices

Appendix A - Figures

- Figure A1 - Existing Potable System
- Figure A2 - Existing Recycled Water System
- Figure A3 – Existing Sewer Collection System

Appendix B - Agreement for Professional Services (sample)

Appendix C – 2015 UWMP

I. INTRODUCTION

The Las Virgenes Municipal Water District (“District”) invites your firm to submit a proposal to prepare the District's 2020 Urban Water Management Plan ("UWMP"). Included in this work is a demographic analyses of the District's service area, residential and commercial population growth, land uses, water demand out to the year 2040, updated water per capita usage, recycled water utilization, assessment of conservation efforts and recommendations concerning water strategies to meet the future demands. The consultant will use the 2020 UWMP Guidebook for preparation in the interim and contact Department of Water Resources (“DWR”) for any updates prior to compilation of the draft 2020 UWMP. The selected firm needs to stay updated on any new legislative mandates to be addressed in the updated UWMP as they become available from DWR and ensure the final UWMP meets all requirements as delineated by DWR and this RFP for the 2020 UWMP.

A scope of work is included to assist you in the preparation of your proposal. Failure to submit information in accordance with the requirements in this Request for Proposal (RFP) may be cause for disqualification.

Questions regarding this Request for Proposal should be directed to Oliver Slosser, Senior Engineer, at (818) 585-7123, or oslosser@lvmwd.com.

II. BACKGROUND INFORMATION

LVMWD is a special district established in 1958. The service area encompasses 122-square miles in western Los Angeles County and includes the incorporated cities of Hidden Hills, Calabasas, Agoura Hills and Westlake Village, as well as unincorporated areas. The District provides potable water, recycled water and wastewater service to a population of approximately 70,000. **Figure A1, A2, and A3** illustrates the District's potable, recycled water, and sewer collection system, respectively. A five-member elected Board of Directors governs the District.

The District purchases 100% of its potable water from Metropolitan Water District of Southern California (MWD). There are currently no local surface or subsurface sources of water that can be used for potable supply. The District has an extensive distribution system to allow the use of recycled water to meet some irrigation needs. The District's potable water facilities include 24 potable water tanks, 23 pump stations, 177 miles of transmission pipeline and 206 miles of distribution pipeline. The District also operates and maintains the 15 MGD Westlake Filtration Plant, which provides disinfection and filtration for the Las Virgenes Reservoir, an uncovered reservoir in Westlake Village.

The District operates the Tapia Water Reclamation Facility and produces high quality tertiary treated recycled water for beneficial reuse. This recycled water is used for irrigating parks, common open spaces, medians, golf courses, and school play areas. Use of recycled water to help meet irrigation needs has proven to be an important asset for the District's water resources. The District meets approximately 20% of its overall water demand with recycled water.

Since the 2015 UWMP, the District has made significant progress with the Pure Water Program in partnership with Triunfo Water and Sanitation District (TWSD). The Pure Water Program was created to beneficially reuse Title 22 water generated by Tapia Water Reclamation Facility to create a new source of potable supply for the region through indirect potable reuse.

A large percentage of the District's service area is undeveloped and held in ownership by state and federal park agencies. Further, numerous parcels of land have been dedicated as permanent open space precluding any development. In general, developed areas of the District (residential, commercial, and light industrial) follow the US 101 Freeway running east-west in the incorporated cities in the corridor. Agricultural lands encompass less than one percent of the service area.

It is the goal of the District to have a Final Draft 2020 UWMP completed no later than April 2021, and to submit the final UWMP to the DWP no later than June 17, 2021.

III. SCOPE OF WORK

This project will complete the background work, coordination, analysis and preparation of documents necessary to complete the District's submission of the 2020 UWMP to the State of California Department of Water Resources by June 17, 2021. This includes the required public hearing and a resolution by the District Board of Directors adopting the 2020 UWMP.

In general, the UWMP is an analysis of:

- Water demand analysis for 20 years (this UWMP will project to 2040)
- Water Supply analysis (to meet demand) - include recycled water
- Drought management measures (as defined by state criteria) and related to the MWD Water Supply and Drought Management (WSDM) Plan
- Water conservation - Implementation of "Best Management Practices." Consult with the District staff for new or revised water allocation, conservation policies.
- Relationship of LVMWD UWMP and MWD Regional Water Plan
- Other matters as defined by DWR for the 2020 UWMP

Elements of UWMP (defined by State of California DWR)

- Plan Preparation
- Service Area Description
- Water Supply
- Water Demand
- Supply Reliability
- Wastewater, Recycling and Recycled Water Storage
- Supply and Demand Comparison
- Water Shortage Contingency Plan (relate to adopted district Drought Management Plan and the MWD WSDM Plan)
- Conservation Measures
- Coordination with local cities, counties and Southern California Metropolitan Water District.

The 2020 UWMP for the District should utilize GIS for many purposes. These include, as a minimum, the descriptions of the District's service areas, the existing infrastructure, analyses of demands, recycled water use, conservation measures (water use efficiency reports, etc.) The final product should also be in a format to be easily adapted to internet access and distribution and be compatible with the District GIS database.

Population forecasting is an important element in developing future water demands. This forecasting should reference existing District reports (Master Plan, Connection Fee Study and others), SCAG modeling and population forecasting, current and future land use plans of the cities and county areas in the District's service area, and trends in water use for existing District customers.

Deliverables:

- Demographic analyses of growth for the District service area out to the year 2040
- Updated potable and recycled water master planning forecasts for demands based on location, service or pump zone area, present and planned land uses, and other criteria
- Updated per capita water use factors for existing services
- Preparation for Public Hearing regarding adoption of the 2020 UWMP
- Preparation of Board Resolution adopting 2020 UWMP and subsequent submission to State
- Completed 2020 UWMP (for submission to California Department of Water Resources)

IV. PROJECT SCHEDULE

Questions Due (5:00 p.m.)	August 4, 2020
District Responses to Questions	August 6, 2020
Proposal Due Date (3:00 p.m.)	August 17, 2020
Acceptance of Proposal (Board meeting)	Tent. Sept. 1, 2020
Preliminary Draft UWMP 2020	January 8, 2021
Presentation of Draft UWMP to Board	February 2, 2021
Public Hearing for UWMP (w/60 days' notice)	February 2, 2021
Final Draft 2020 UWMP	April 20,2021
Board Resolution Adopting 2020 UWMP	May 5, 2021
Final UWMP Submitted to State DWR	June 17, 2021

*All dates are subject to DWR guidelines and consultant may need to adjust some of the above dates in order to comply with DWR deadlines.

V. PROPOSAL INSTRUCTIONS

Proposal Format

1. All proposals must be bound.
2. Proposals shall include a table of contents listing all sections, figures, tables, and other graphic or referenced materials.
3. Pages with narratives shall be single-spaced and numbered.
4. Proposals shall be organized according to the following outline:
    a. Introduction and Executive Summary
    b. Team Composition and Responsibilities
    c. Detailed Scope of Work Plan and Schedule
    d. Team Experience in Similar Projects and Results
    e. Resource Commitments of Team Members
    f. Professional References, Resumes, Experience
    g. Definition of Resource Commitments on District staff
5. Fee/Price Schedule for Services

1. Introduction and Executive Summary

Include a brief executive summary of the major facts and features of the Proposal, focusing on innovative approaches to the preparation of the UWMP. Summarize conclusions, assumptions, and recommendations the consultant desires to make. The executive summary should be designed specifically for review and understanding by a non-technical audience. Include a brief description of the consultant team's corporate and other organizational history with an overview of experience on similar projects and their outcome(s).

2. Team Composition and Responsibilities

Consultant shall identify all resources and individuals involved in this effort and their relative level of effort commitment to the project. Each individual, or group, shall be identified for their responsibility in the overall effort and the products, or work effort, undertaken.

The District's standard Agreement for Professional Services is included as Appendix B. The consultant shall have the ability to execute the agreement in this form. Professional liability insurance in the amount of $1 million is required.

The consultant shall be responsible for all services performed under the Agreement for Professional Services with the District. If sub-consultant services are utilized they must be identified in the scope of work along with the services performed and be identified in the fee schedule together with their respective billing rates. Individuals working on various portions of the effort shall be fully capable and qualified to provide the services rendered.

Changes in the use of key personnel shall be approved only by the District and shall not affect: (1) the overall project schedule as presented in the Scope of Work, (2) the proposed procedures and methodology to be used and, (3) the cost of services provided.

3. Detailed Scope of Work Plan and Schedule

The consultant team shall define their Scope of Work by:

- Identify in specific detail their understanding of the study.
- Define the goals and objectives of the work effort.
- Describe the approach taken by the consultant.
- Identify how the consultant team will perform the work while engaging the District staff and Board.
- Make a firm commitment to resource allocations of all parties involved.
- Identifying key decision points and milestones in the process.
- Summarizing reporting requirements.
- Providing an overall work schedule and milestones for the effort that meet all DWR timelines.
- Define the "Project Deliverables" of the consultant's efforts.

4. Team Experience

Summarize capabilities and relevant experience of each individual, or sub-firm (if used) involved in the UWMP preparation with particular emphasis on how the support as described herein will be accomplished.

Summarize experience of consultant firms in implementing successful solutions to studies of similar nature. Attention should be directed to:

- Strength of consultant's knowledge, experience and application in the administration of similar projects or programs.
- Familiarity in water master planning related to demand forecasting and analysis coupled with water supply management strategies.
- Familiarity with the State requirements for preparation of the 2020 UWMP.
- Familiarity with GIS use and application matters is considered essential to successful performance.

A listing of at least three applicable references for projects or programs of similar nature to that being proposed herein is required for each firm and individual. The listing shall indicate the role, responsibility, effectiveness of effort, and summary of action for each example cited.

5. Resource Commitments

Summarize the commitments of labor and other costs each firm and individual will provide in support of the Scope of Work.

6. Professional References, Resumes, and Experience

Summarize current corporate background for all firms and key individuals providing services under the Scope of Work. Provide the following information:

- Company name, business address, phone number and point of contact
- Year company established
- Type of ownership and parent company, if any
- Identify individual authorized to negotiate on behalf of the company and fully obligate and make binding commitments for the company

7. Definition of Resource Commitments on District Staff

Summarize the assumptions made by the consultant relative to resource commitments to be provided by District staff or the District's GIS platform in terms of labor, facilities, equipment, and the like to assist the consultant during the course of work.

8. Selection Criteria and Evaluation

The Proposals will be evaluated with the following considerations:

1. Overall approach to the problem and understanding of the issues.
2. Overall proposed Scope of Work addressing the goals and objectives.
3. Commitment to quality during the course of the work.
4. Commitment of key people to work effort.
5. Overall experience of the individuals and the firms
6. Overall experience in technical proficiency and professional reputation of the firms and individuals.
7. Evidence of completing work on schedule and within budget.
8. Project Cost

9. Proposal Submission

Please submit one (1) digital copy of your proposal no later than 3:00 p.m. on August 17, 2020 by emailing them to:

Oliver Slosser, PE
oslosser@lvmwd.com

LVMWD is now allowing proposals to be dropped into a mail box outside the front entrance doors to the main building (4232 Las Virgenes Rd.) This mail box is checked every morning, and will also be checked several times throughout the due date. Proposals may be sent by mail and firms must allow sufficient time for delivery, to district headquarters, by the deadline. The mailing address is:

Las Virgenes Municipal Water District
Attn: Oliver Slosser
4232 Las Virgenes Rd.
Calabasas, CA 91302

A hard copy proposal is not required and proposals submitted electronically by the deadline will be considered. It is recommended to specify "**2020 URBAN WATER MANAGEMENT PLAN**" in the email subject (for electronic submission) or somewhere on the envelope to ensure prompt timestamping.

APPENDIX A

Service Area Maps

APPENDIX B
Professional Services Agreement

APPENDIX C
2015 UWMP

Stantec Consulting Services Inc.
111 East Victoria Street
Santa Barbara, California 93101-2018

August 17, 2020

Oliver Slosser, PE
Project Manager
Las Virgenes Municipal Water District
Via: oslosser@lvmwd.com

Reference: Proposal for the Las Virgenes Municipal Water District 2020 Urban Water Management Plan

Dear Mr. Slosser,

We are excited for you to review and consider our proposal for preparing the Las Virgenes Municipal Water District 2020 Urban Water Management Plan. With our local project manager and access to experts in every possible related water management discipline and support service, we are eager to help you and your partners plan for long-term sustainability. Stantec Consulting Services Inc. is on track to become the number one global water design firm and we have not gotten on that track by accident. We want to be your go-to water resources firm right here in Southern California.

About our team: Our project team members have industry leading water resources experience, familiarity with you and your partners' infrastructure, and local leadership to successfully deliver this plan. We are committed to you as a long-term partner and will provide the necessary resources to meet your technical and schedule requirements.

Our proposed project manager, **Autumn Glaeser, PE**, is a Santa Barbara-based member of our team. Autumn is currently teamed up with our principal-in-charge, **Jim Cathcart, PE**, to prepare the Casitas Municipal Water District Comprehensive Water Resources Plan. The proposed UWMP team will also be managed by Autumn, whose proven history of supporting water resources efforts encompass planning and designing for potable water, recycled/non-potable water, wastewater infrastructure projects, including numerous successful State funding efforts for both planning and implementation. Our proposed technical advisor, **Tama Snow, PE**, for this planning effort bring decades of experience leading integrated and compliance-driven planning. Autumn will use her water resources experience to lead our team and she will work with Jim and Tama to assure appropriate resources are committed to each of the specific tasks. Jim has four decades of water resources planning experience for a variety of Southern California agencies. Tama has been planning and executing projects that improve water resources management capabilities for public, private, and regulatory clients for over twenty-five years. Well respected in the industry, she is known as someone who pays close attention to details, is responsive to client needs and doesn't lose sight of the big picture. **Yung-Hsin Sun, PE, Ph.D**., is a principal engineer with 31 years of experience leading, managing, and planning large-scale, multi-objective, interdisciplinary water resources projects for flood management, water supply, and ecosystem restoration in US and other countries. He has comprehensive experience and knowledge on the development and operations of California water, including the Federal Central Valley Project and California's State Water Project, and the Sacramento-San Joaquin Flood Control System. Dr. Sun participated in many strategic planning activities for large-scale water resource projects throughout California, including California's Water Plan and the Central Valley Flood Protection Plan. Our core planning team is made up of **Adelina Pirijanyan, PE, Kevin Hernandez, EIT,** and **Chisa Whelan**, whom have multiple years of experience combined on planning projects involving supply and demand analysis, UWMP preparation, drought management measures, and strong GIS capabilities.

Reference: Proposal for the Las Virgenes Municipal Water District 2020 Urban Water Management Plan

Proven experience that will directly benefit you:

Our team specializes in water resources planning—across all dimensions of activity. Better yet, all our proposed team members are in-house, focused, and prepared to deliver an integrated regional urban water management plan that meets your needs. With Autumn at the helm, you can expect a customized approach based on our comprehensive and intimate understanding of your needs and goals.

We are part of this community:

With 75 years of southern California project and planning experience and six local offices, we are well-integrated in the region. Stantec has a long history of working with Las Virgenes, most recently we completed your recycled water storage study. This gives us perspective and understanding of the political, geographical, and jurisdictional aspects of a project in the Las Virgenes District. We have a vested interest in the success of this project as professionals and as community-members. Our longevity and proximity offer you the advantage of a firm that can provide continuous, reliable, clear, and concise communication. We have been here a long time already, and we plan to be here for a long time to come.

As we are all aware, we are working in unprecedented times as a result of the COVID-19 pandemic. The situation is fluid. Our proposal is based on our understanding of performing these services in normal conditions. As the nature and extent of the impacts due to this outbreak cannot be fully identified or quantified at this time, we feel it would be prudent to submit this proposal based on normal conditions, without accounting for impacts due this outbreak, and to discuss with you once we are able to evaluate the impacts and to work collaboratively with you on a path forward. We would be pleased to have a further discussion with you to share our respective plans and efforts to help mitigate the impact of this evolving situation on your proposed project.

We want to be selected to support you on this project. We have reviewed your proposed contract terms and take no exceptions. If selected, we will be able to conclude a mutually satisfactory contract with you. We are excited to expand and strengthen our experience with you. If you have any questions or require additional information, please do not hesitate to contact us by phone or email using the contact information listed below.

Regards,

Stantec Consulting Services Inc.

Autumn Glaeser PE
Project Manager
(805) 285-9093
Autumn.Glaeser@Stantec.com

James A. Cathcart PE
Principal in Charge
(949) 456-7346
Jim.Cathcart@Stantec.com

Las Virgenes Municipal Water District

Proposal to prepare the 2020 Urban Water Management Plan

August 17, 2020

Stantec

Table of Contents

A. Introduction and Executive Summary 3
B. Team Composition and Responsibilities 5
C. Detailed Scope of Work Plan and Schedule 6
D. Team Experience in Similar Projects and Results 19
E. Resource Commitments of Team Members 24
F. Professional References, Resumes, and Experience 26
G. Definition of Resource Commitments on District Staff 39
Fee Schedule 40

List of Tables

Table 1 – Proposed Meetings Included in Scope of Services 11
Table 2 – Stantec's Team Past Experience Similar to Proposed Project 19
Table 3 – Stantec's Past Experience Similar to Proposed Project 20
Table 4 – Stantec's resource commitment of team members 24
Table 5 – Stantec's resource commitment by task 25
Table 6 – Stantec's Professional References 27
Table 7 – LVMWD Resource Commitment Summary 39
Table 8 – Stantec's Proposed Fee Schedule 40

List of Figures

Figure 1 – Demand Projection Ranges Visualization Example 4
Figure 2 – Microsoft Power BI Tool Showcase Example 4
Figure 3 – Summary of Provisions Related to Preparation and Adoption of a UWMP 6
Figure 4 – Stantec's Project Management Framework 7
Figure 5 – Proposed Work Schedule 18

A. Introduction and Executive Summary

In 2018, two new policies were enacted, Senate Bill (SB) 606 and Assembly Bill (AB) 1668, which amended existing law to establish long-term improvements in water conservation and drought planning to adapt to climate change and the resulting longer and more intense droughts in California. The 2020 Urban Water Management Plan update includes additional provisions related to the preparation and adoption of an UWMP by an urban retail water supplier as part of updated legislation including from 2018. The key new and/or updated requirements include ***drought risk assessment, seismic risk assessment, water shortage contingency plan, groundwater supplier coordination, system description, and demand management measures***. The implementation schedule of these items varies over the course of the next few years and will require updates to the 2020 UWMP. Stantec will work with Las Virgenes Municipal Water District (LVMWD) to evaluate these requirements and opportunities to streamline compliance with UWMP preparation, adoption, and submittal requirements.

2018 Legislation (SB 606 and AB 1668) have four primary goals:

- ✓ ***Use Water More Wisely***
- ✓ ***Eliminate Water Waste***
- ✓ ***Strengthen Local Drought Resilience***
- ✓ ***Improve Agricultural Water Use Efficiency and Drought Planning***

Stantec has developed a systematic approach to managing projects through our Project Management Framework. Stantec's Project Manager, **Autumn Glaeser, PE**, will approach the 2020 UWMP update using our tools and standards to maintain a schedule compliant with the California Department of Water Resources (DWR) guidelines and within the agreed upon budget. Our Project Management Framework system provides a structure that incorporates work efforts, schedule, financial controls, quality control/quality assurance processes, and ultimate project delivery.

Autumn will work closely with our core team utilizing past experience in the preparation of water master plans, UWMP updates, comprehensive water resources plan, and a variety of other planning projects at the local and state level. Our technical advisor, Yung-Hsin Sun supported DWR in the framework development for ***making conservation a California way of life*** and current implementation of the 2018 Legislation in developing data, tools, research, and guidebooks.

An important aspect of the 2020 UWMP update is methodologies used to project future demands. Stantec recognizes water demand trends change over time based on a variety of factors including *population, current demand management measures implemented, high efficiency fixtures, economical, and climate changes.* As water suppliers project future water demands, factors

Company Name	Stantec Consulting Services Inc.
(Ownership) Incorporation Date	August 27, 1929
Jurisdiction of Incorporation	New Year
Local Employees (California)	1,300
National Employees	22,000
Office Location where the majority of the work will be done	Santa Barbara, CA and Pasadena, CA
Proposer's Point of Contact and signing authority	Autumn Glaeser, PE Project Manager Santa Barbara, CA (805) 285-9093 Autumn.glaeser@Stantec.com

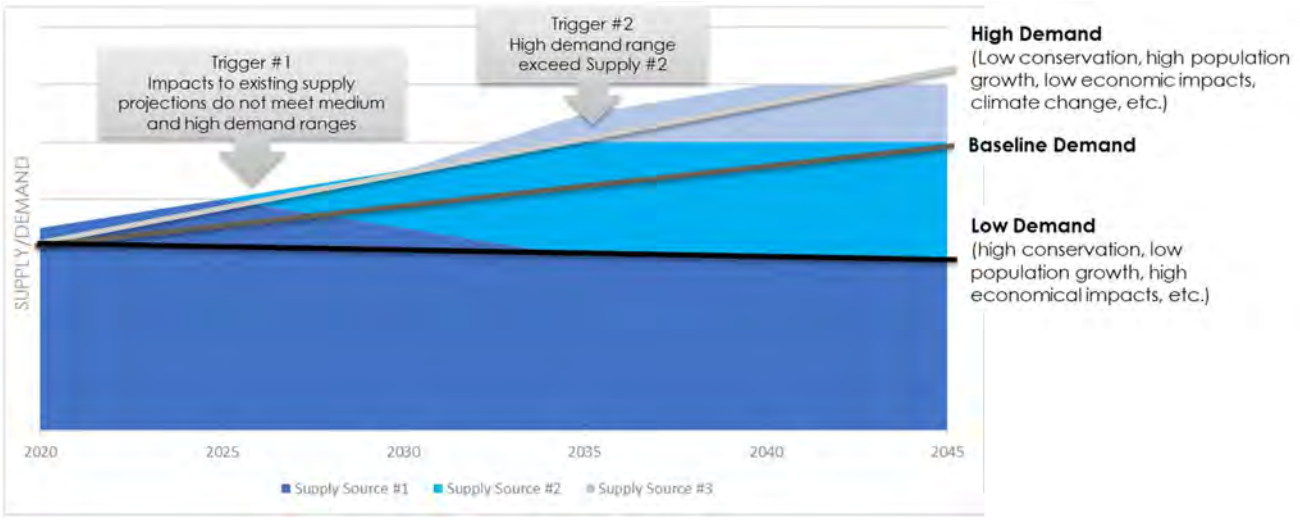


Figure 1 – Demand Projection Ranges Visualization Example

applied to water demands need to be adaptable to the ever-changing environment. Recent studies have evaluated demand projections of urban water suppliers and determined water suppliers were overestimating demands.[1] Overestimations were due to a variety of factors such as inaccurate population projections, successful water conservation efforts, etc. Stantec proposes a water demand projection methodology which accounts for these variables and result in a range of demands to be used during planning scenarios. As shown in the figure, demands in the lower range take into account high conservation efforts and low population growth. The high range in demands, assumes low conservation efforts and high population growth. This range in demands will paint a better picture of future water needs for the LVMWD service area and will allow for trigger-based supply planning.

Stantec has a deep bench of experience utilizing Arc GIS and Microsoft Power BI for data analysis and visualization which will be used to support LVMWD in on-going planning efforts beyond the 2020 UWMP Update. Stantec will also use technical editors and graphical designers to make the 2020 UWMP update accessible to the general population. Common language and effective data visualization are critical to providing general understanding to all parties reading the 2020 UWMP update, and our team will help tailor this update to meet DWR's updated guidelines on access to a general audience.

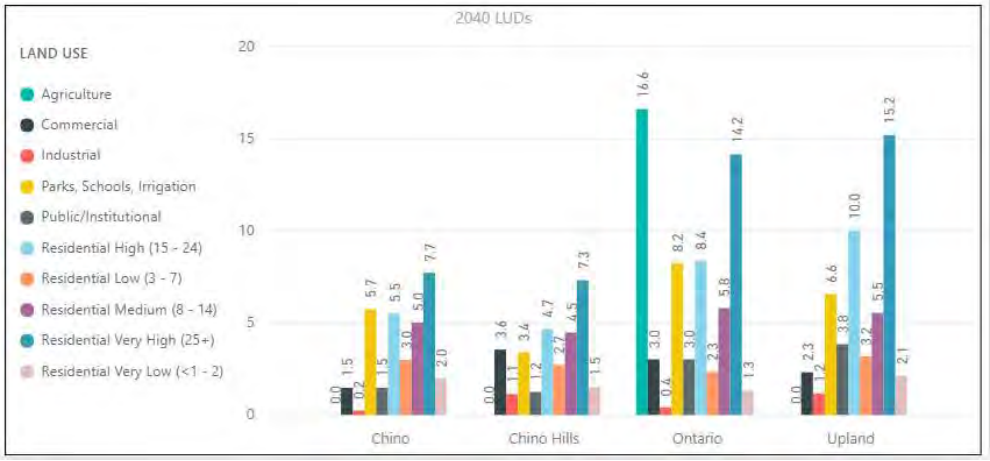
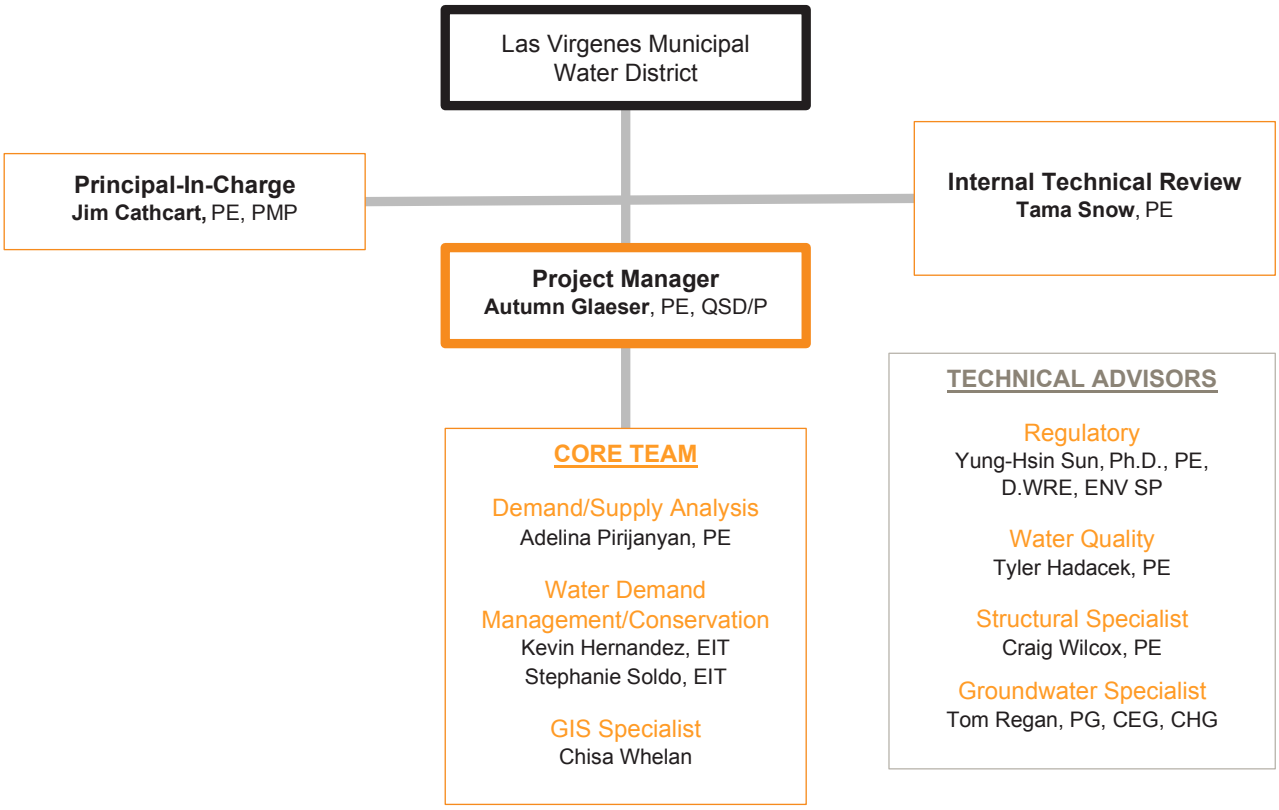


Figure 2 – Microsoft Power BI Tool Showcase Example

[1] An Assessment of Urban Water Demand Forecasts in California; Abraham, Sonali; Diringer, Sarah; and Cooley, Heather; https://pacinst.org/wp-content/uploads/2020/08/Pacific-Institute-Assessment-Urban-Water-Demand-Forecasts-in-CA-Aug-2020.pdf; August 2020.

B. Team Composition and Responsibilities

Stantec carefully builds our project teams to meet the needs of the client and project scope. We perform best when we are in a role that plays to our strengths; therefore, having the right person in the right job enables us to deliver projects to our clients successfully. Our proposed structure is illustrated in our organization chart below. Full resumes are located in Section F. As demonstrated in the similar experience section of the appendix, our team has worked together on many comparable projects. Lessons learned from past projects will help us deliver high quality consulting support services that exceed your needs.



C. Detailed Scope of Work Plan and Schedule

Project Understanding

California urban water suppliers are required to update and submit an Urban Water Management Plan (UWMP) every five years. UWMPs are meant to support the long-term resource planning for water suppliers to evaluate existing and future supplies and demands of their customers. The historic drought that unfolded over the last ten years has severely tested the robustness and resiliency of California's water management system. Las Virgenes Municipal Water District (LVMWD) is largely dependent on imported water supplies and is working on a variety of projects including partner agency interconnections and Pure Water to improve future reliability for its customers.

In 2018, two new policies were enacted, Senate Bill (SB) 606 and Assembly Bill (AB) 1668, which amended existing law to establish long-term improvements in water conservation and drought planning to adapt to climate change resulting in longer and more intense droughts in California. SB 606 and AB 1668 have four primary goals:

- ✓ Use Water More Wisely
- ✓ Eliminate Water Waste
- ✓ Strengthen Local Drought Resilience
- ✓ Improve Agricultural Water Use Efficiency and Drought Planning

The UWMP is compiled in accordance with Division 6 Part 2.6 of the California Water Code §10610-10656 and §10608. The 2020 UWMP update comes with additional provisions related to the preparation and adoption of an UWMP by an urban retail water supplier. The implementation schedule of these items varies over the course of the next few years and will require updates to the 2020 UWMP. LVMWD may want to consider these requirements to streamline compliance with UWMP preparation, adoption, and submittal requirements. Figure 3 shows a summary table of the 2020 UWMP Key New/Updated Requirements.

2020 UMMP KEY NEW/UPDATED REQUIREMENTS

Drought Risk Assessment	Seismic Risk Assessment	Water Shortage Contingency Plan	Groundwater Supplier Coordination	System Description	Demand Management Measures
➢ Conduct every 5 years in addition to conducting an annual water supply and demand assessment ➢ Annual Reports are to be submitted by November 1, 2023	➢ Address seismic risk to various water system facilities ➢ Local hazard mitigation plan or multi-hazard mitigation plan may cover this requirement	➢ To be submitted to DWR within 30 days of being adopted ➢ To be made available for public review within 30 days of submitting to DWR	➢ If groundwater is identified as an existing or planned source of water supply and the underlying groundwater basin is subject to SGMA, a groundwater sustainability plan is required to be included	➢ A simple layperson's description of its water supply reliability conditions and its strategy for meeting future water supply reliability needs to provide a general understanding of its plan	➢ Narrative describing water demand management measures to be implemented by January 1, 2027 (Supplement to 2020 UWMP by January 1, 2024)

Figure 3 – Summary of Provisions Related to Preparation and Adoption of a UWMP

Project Approach

Our project manager is Autumn Glaeser, a professional engineer with a long history of supporting water resources efforts on the Central Coast including numerous successful State funding efforts for both planning and implementation projects. As project manager, she will use her broad water resources planning

and design experience to lead the Stantec Team and make sure the appropriate resources are committed to each of the specific tasks.

Stantec has developed a systematic approach to managing projects through our Project Management Framework. Our Project Management Framework system provides a structure that incorporates work efforts, schedule, financial controls, quality control/quality assurance processes, and ultimate project delivery. The cornerstones of the framework are: (1) the Project Execution Plan (PXP) serving as the communication document for the team describing tasks at hand, identifying resources required to accomplish the tasks, and planning of upcoming tasks; (2) Project schedule and maintenance identifying tasks accomplished, time allotted for each task and when resources are needed to accomplish tasks; (3) Project control tracking budget status and invoicing; and (4) Quality assurance/quality control (QA/QC) providing reviews to maintain high quality submittals. Stantec's project management system is aligned with the Project Management Institute's Project Management Body of Knowledge and has been used continuously throughout Stantec's projects successfully. The following is a discussion of elements our Project Management Framework.

Project Execution Plan (PXP)

The PXP is a living document that is updated based on schedule progress, project-related efforts, and ultimately communicates to the project team (collectively LVMWD and Stantec) the key project management goals, processes, and procedures for this project. Our project manager, Autumn Glaeser will develop the Work Breakdown Structure (WBS) based on the scope of work and input from LVMWD. The WBS is the foundation for developing the project schedule and budget for progress monitoring. The PXP documents the required QA/QC procedures and facilitates coordination among team members and subconsultants, outlining who does what, when.

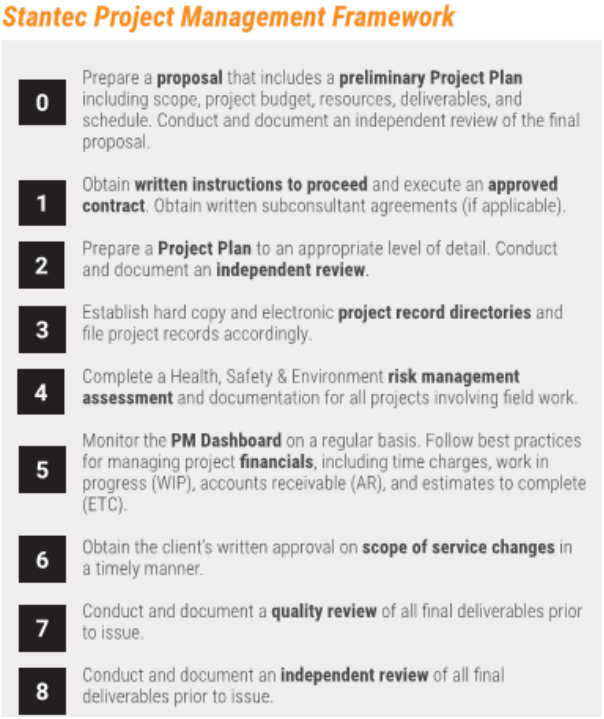


Figure 4 – Stantec's Project Management Framework

Quality Management/Quality Control

We have a proven procedure for establishing and maintaining the quality of our professional work products. In fact, our QA/QC protocols are integrated into our overall IMS that requires continuous reviews during the development of the project from the initial stages through approved construction documents. The QA/QC procedure is founded on selecting an experienced team using proven procedures consistently, following strict standards for engineering, checking to help ensure compliance, and adapting rapidly to unusual events. Tama Snow, Stantec's technical reviewer, brings extensive and relevant experience to overall QA/QC of the planning effort. She will provide technical oversight for meeting established legal and regulatory requirements and strategic goals of LVMWD. Tama is well versed in urban water management planning requirements and associated demand management and infrastructural planning.

Yung-Hsin, Stantec's Regulatory Lead supported California's Department of Water Resources (DWR) in the framework development for making conservation a California way of life and current implementation of the 2018 Legislation in developing data, tools, research, and guidebooks. He has contributed to regional water reliability studies with a water market approach and agency capacity building considerations, basin-scale climate adaptation plans that integrate federal, state, and local resources, and considerations for addressing locally unique climate vulnerabilities.

UWMP Preparation

Demand and Supply

Historical water consumption is analyzed to understand the water demand trends in a service area and these trends are used to project future demands. Historic trends in water use can be calculated based on per capita or per land use, depending on available data. Projecting for future conditions will require additional considerations and use of the appropriate forecasting methods as well as water conservation and changing use patterns. Various factors can alter future water demands such as changes in population growth, land development, economic growth, and any future conditions impacting water use. For the UWMP to be a useful planning tool, accurate demand projections are imperative. Stantec will work with LVMWD and review available data to determine the appropriate demand projection methodology and will consider factors that may impact future changes in water consumption for LVMWD's service area. A range of demand projections will be projected for each planning year. Demand projections will display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area. It is our assumption that LVMWD has data to support water use efficiency implementation of demand management measures which will be used in this analysis. This UWMP will report annual water loss experienced in the distribution system for five years preceding the plan update. We assume LVMWD will provide this data for Stantec to incorporate into this UWMP. Population and water demand projections will be presented in 5-year increments for a 25-year period (2020 to 2045).

To demonstrate how LVMWD plans to meet the projected demands in the service area, Stantec will perform a supply reliability analysis through year 2045, under the following supply conditions: average water year, single dry water year, and multiple dry water years (defined for the 2020 UWMP as a 5-year period).

Water Use Efficiency and Conservation

Demand projections will account for the water savings due to efficiency and implementation of demand management measures. We will include distribution system water loss for each of the five years preceding the plan update. Water loss information will be provided by LVMWD.

In previous UWMPs, it was required to establish a baseline water use and set target water use goals for 2020, seeking a 20-percent reduction in per capita water use. In the 2020 UWMP, LVMWD must demonstrate its actual water use, as compared to the previously established 2020 target. Based on information provided by LVMWD, we will update the data and methods used to establish baseline, target, and actual gallons per capita per day use within the framework of the SB X7-7 Verification Form.

The Urban Water Management Planning Act also requires a plan that identifies and quantifies adequate water supplies including recycled water, for existing and future demands, in normal, single-dry, and multiple-dry years. The 2015 UWMP evaluated a single wet year scenario in addition to the required scenarios. In the 2020 UWMP, an additional scenario will be included to evaluate extended drought conditions.

Water Shortage Contingency Plan

A key updated requirement of the 2020 UWMP is the Water Shortage Contingency Plan. LVMWD has the 2016 Water Shortage Contingency Plan which will be reviewed and updated to meet the 2020 UWMP requirements. The analysis generally consists of:

- ✓ Annual water supply and demand assessments, consisting of methodologies, process, and timeline for preparing assessments
- ✓ Six stages of action in response to water supply shortages of up to 50 percent. 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

- ✓ Shortage response actions including locally appropriate supply augmentation, local demand reductions, local operational changes, mandatory prohibitions against specific water use practices, an estimate of the extent to which the gap between supplies and demand will be reduced by implemented action, and communication protocols
- ✓ Actions to be taken to prepare for and implement during catastrophic water supply interruptions
- ✓ Monitoring and reporting requirements
- ✓ An analysis of revenue impacts of each action including measures to overcome those impacts.

Seismic Risk Analysis

Urban water suppliers are now to specifically address seismic risk to various water system facilities and to have a mitigation plan. LVMWD has prepared the 2019 Hazard Mitigation Plan which will be reviewed for compliance with the 2020 UWMP update. An important aspect of this provision is the intersection of water supply infrastructure planning with a regional hazard mitigation plan. This leaves a variety of ways for an urban water supplier to accomplish this requirement.

Drafting the Plan

The 2020 UWMP will be compiled in accordance with the Urban Water Management Planning Act. The Guidelines for the 2020 UWMP have not yet been released by DWR and are anticipated in Fall 2020.

Once all information is received from each of the participating agencies, Stantec will prepare the administrative draft for LVMWD review. Comments received about the administrative draft will be used to prepare the public draft plan. Stantec will document and provide responses to the comments received during the public review period. Comments will be used to prepare the draft final plan, then submitted to LVMWD to approve and adopt. Once adopted, the final plan must be submitted to DWR within 30 days and prior to the deadline of July 1, 2021. All materials produced as part of the plan will be submitted in native formats, as well as a single pdf final document that can be easily shared digitally.

It is important that the plan be easily understood by readers with different levels of technical knowledge, and different types of responsibilities. Stantec will use technical editors and graphical designers to make the Plan accessible and compelling while meeting the requirements of DWR. One of the changes in the 2020 UWMP is the requirement that each plan shall include a simple lay description of any information necessary to provide a general understanding of the agency's plan. Common language and effective data visualization are critical to integrated water management plans, and our team will help tailor this plan is one all participating agencies will be proud to showcase. We will utilize visualization tools such as Power BI to prepare graphics for presentation and report purposes. Stantec will work with the District to upload the 2020 UWMP update to DWR through their online format.

COVID-19 Pandemic

As we are all aware, we are working in unprecedented times as a result of the COVID-19 pandemic. The situation is fluid. Our proposal is based on our understanding of performing these services in normal conditions. As the nature and extent of the impacts due to this outbreak cannot be fully identified or quantified at this time, we feel it would be prudent to submit this proposal based on normal conditions, without accounting for impacts due this outbreak, and to discuss with you once we are able to evaluate the impacts and to work collaboratively with you on a path forward. We would be pleased to have a further

discussion with you to share our respective plans and efforts to help mitigate the impact of this evolving situation on your proposed project.

Stantec created a *Pandemic Response Team* over a decade ago. This team moved rapidly during the early stages of the COVID-19 pandemic to protect the health of our employees, provide for the continuity of essential business activities, and minimize disruption to our clients. As a result, we have continued to deliver services while adapting to changing conditions and directives provided by health authorities, all the while keeping our workforce safe. We understand that the District is essential, and that you need to sustain readiness by maintaining operations critical to your service areas. Whether it requires personnel to report to the field while maintaining social distancing and enhanced safe work practices or virtual meetings to facilitate this planning effort, Stantec has the depth and breadth to quickly provide solutions by bringing together talent from our colleagues across the globe. To help ensure effective COVID-19 related communication with our clients and stakeholders, we have set up a website page to share expert knowledge, relevant service offerings, critical business continuity information, and leadership messages. Read more about Stantec's COVID-19 response, including remote working and business continuity measures. Link is https://spotlight.stantec.com/covid-19

Given the extraordinary situation of the COVID-19 pandemic in Southern California, we imagine many if not all the meetings related to this plan update will be conducted over web-based platforms. Our firm and the team assigned to this project has significant experience managing multi-party webinars that convey information or online workshops that support shared effort. If the situation changes during the period of work, and in-person meetings become appropriate and safe for all participants, Stantec staff will be able to attend in-person from nearby offices.

Scope of Work

The Urban Water Management Plan (UWMP) will be compiled in accordance with Division 6 Part 2.6 of the California Water Code §10610-10656 and §10608. The Guidelines for the 2020 UWMP have not yet been released by the California Department of Water Resources (DWR); the following scope of work represents our best estimate of effort and cost based on previous UWMP guidelines. When DWR guidelines are released, Stantec will review the scope and fees proposed herein and adjust as necessary to define a 2020 UWMP that meets DWR guidelines and requirements. Any changes to this scope and fee will be discussed with District staff and an appropriate change order will be issued dependent upon the requirements.

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

1.1 Preparation of Project Status Reports

Stantec will prepare monthly status reports. Each month, Stantec will prepare a status report to the District Project Manager consisting of a brief one to two paragraph email summarizing the activities accomplished during the previous month, the activities anticipated to be accomplished during the upcoming week, critical items, and/or decisions that need to be concluded to maintain the progression of the Project. Monthly status reports will provide more details summarizing the work completed and review of work status as it relates to budget, schedule, and items of work. The monthly status report will accompany the monthly invoicing of the Project to the District.

1.2 Project Administration

Stantec's project manager will be the main point of contact for the District team and will manage the day to day activities of the Project team. Our Project Manager will coordinate directly with the District on planning updates, meetings, and schedule. She will provide updated project schedules monthly during the estimated 9-month Project timeframe.

1.3 Meetings and Workshops

Stantec will organize, attend and conduct the required meetings and workshops as described below. Stantec will prepare required meeting agendas and materials that will be provided to the District a minimum of five working days prior to the meeting. Stantec will prepare and circulate draft meeting minutes within five working days after each meeting to the District for review and comment. Meeting minutes will be considered final after five working days from the initial distribution for review.

Table 1 – Proposed Meetings Included in Scope of Services

	Meeting / Workshop	Description	Number of Meetings /Duration Each
1.	**Project Kick-Off Meeting**	The initial meeting will discuss the Project approach, schedule and initiation of the Project. Stantec will prepare initial Request for Information (RFI) pertaining to existing information.	1 meeting Two hours, conference call
2.	**Project Status Meetings**	Stantec's PM will attend three conference calls (in-person when feasible). Technical specialties may attend, as needed.	3 conference calls (in-person when feasible)
3.	**Required Public Hearing**	Stantec will attend the public hearing. Stantec's PM and key staff members will be in attendance. Stantec will work with the District for preparing presentation materials.	1 meeting two hours, virtually (in-person when feasible)

1.4 Quality Assurance /Quality Control

The Stantec design team will implement a Quality Assurance / Quality Control (QA/QC) plan to provide a review of all deliverable materials associated with the Project. Our QA/QC will be performed by internal staff with specific expertise in the subject matter being reviewed. Written comments will be provided to the Project team. Quality review documents will be developed to provide records of review and resolution of internal comments prior to delivery to the District.

Task 1 Deliverables:

- Meeting Agendas
- Meeting Minutes
- Monthly Status Report and Invoices

LVMWD Task 1 Anticipated Support:

- Provide relevant data per data request
- Attend meetings
- Review and process monthly invoices

Task 2 – Data Collection and Review Previous Studies/Relevant Data

Stantec will review background information including previous studies. The objective is to collect data to satisfy the new and/or updated requirements of the 2020 UWMP and updates from the 2015 UWMP. Stantec assumes data will be available in an electronic Excel format. The following data will be collected and reviewed at the outset of the UWMP preparation:

- Historical weather data (temperature, precipitation, ETo) for the previous 10 years of record
- Current development status list (will-serve letters) from cities and county
- Current land use maps, general plans, and specific plans

- Updated timing of proposed developments
- Historical metered water consumption records by customer class (monthly consumption, number of meters) for the previous 10 years of record.
- Historical monthly water production by source for the previous 10 years of record.
- Water supply capacity by source
- Documentation of water rights and supply entitlements

In addition, Stantec will review the following relevant reports and supporting data:

- Recycled Water Seasonal Storage Project Feasibility Study, Las Virgenes Municipal Water District, 2012
- Recycled Water Master Plan, Las Virgenes Municipal Water District, 2014
- Integrated Master Plan, Las Virgenes Municipal Water District, 2014
- Sanitation Master Plan, Las Virgenes Municipal Water District, 2014
- Water Quality & Consumer Confidence Report, Las Virgenes Municipal Water District, 2019
- Housing Element Updates for the City of Calabasas, the City of Hidden Hills, the City of Simi Valley and the City of Westlake Village
- City of Simi Valley/Ventura County Waterworks District No. 8 (VCWWD 8) Water Quality Report (most recent)
- Metropolitan Water District of Southern California (MWDSC) Urban Water Management Plan (most recent)
- Ventura County Waterworks District No. 17 Annual Water Quality Report (most recent)

Task 2 Deliverables:

- Data Request Log

LVMWD Task 2 Anticipated Support:

- Provide data not accessible online

Task 3 – Establish Agency and Stakeholder Coordination

The UWMP Act contains several provisions related to agency coordination during the preparation of UWMPs. Specifically, §10620(c) provides that wholesale water agencies may not include planning information applicable to their retail agencies without the consent of the retail agencies. Section 10620(d) requires water suppliers to coordinate the preparation of their UWMP with other appropriate agencies, and §10642 requires water suppliers to encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area.

Stantec will work with the District for agency outreach to coordinate the preparation of the UWMP as outlined below.

Stantec will develop an outreach program for the District pursuant to the requirements of §10620 (d) and §10642. As part of this program, Stantec will notify the stakeholders by letter that the District is updating the UWMP and is requesting planning information for inclusion in the plan.

Stantec will maintain a list of stakeholders and will distribute meeting agendas, notes, and other notices in accordance with the UWMP requirements to the stakeholders. If additional effort is desired by the District above and beyond what has been budgeted in this proposal, budget adjustments will need to be agreed upon between Stantec and the District.

Task 3 Deliverables:

- List of stakeholders in Excel

- Correspondence from stakeholders in electronic format

LVMWD Task 3 Anticipated Support:

- Review outreach material and correspondence from stakeholders

Task 4 – 2020 UWMP UPDATE

Water Code §10631(b) requires water suppliers to identify and quantify existing and planned water sources available over the next 20 years in their UWMP updates. Stantec will complete the following subtasks leading to a 2020 UWMP report.

4.1 Evaluate Existing Water Supplies

Stantec will prepare the following descriptions of each existing water source:

- historical monthly and annual usage (2010-2019)
- projected supply over the next 20 years in normal, single dry and multiple dry years
- contracts, water rights, or other proof for the expected supply
- supply reliability and vulnerability to seasonal or climatic shortage
- water quality summary
- cost of purchased and produced water

4.2 Future Water Supply Opportunities

Water Code §10631(b) also requires the water supplier to identify and quantify planned sources of water. This task will revisit, and update options presented in the 2015 UWMP and identify additional supply options to be considered in meeting future demands for the next 20 years as provided by the District.

DESCRIBE CURRENTLY PLANNED WATER SUPPLIES

Stantec will prepare descriptions of the currently planned water supply projects as provided by the District.

DESCRIBE WATER TRANSFER AND EXCHANGE OPPORTUNITIES

Water Code §10631(c) requires water suppliers to describe opportunities for short- or long-term water transfers or exchanges. Stantec will summarize existing water transfers conducted by the District. Other opportunities for water transfers or exchanges will be identified based on the review of available data and feedback from the District.

DESCRIBE DESALINATED WATER OPPORTUNITIES

Water Code §10631(g) requires water suppliers to describe opportunities for development of desalinated water including ocean water, brackish water, and groundwater as a long-term supply. Stantec will identify and describe such opportunities as may currently exist for the District.

IDENTIFY PREFERRED WATER SUPPLY OPTIONS

Water Code §10631(f) requires water suppliers to include a description of all water supply projects that may be undertaken to meet the total projected water use. Stantec will review the 2015 UWMP results and make necessary adjustments to the recommended water supply projects as described by the District.

4.3 Develop 25-year Demand Projections

Water Code §10631(e) requires water suppliers to quantify past, current and projected water use in five-year increments for the next 20 years. Stantec will document historical usage and prepare updated water usage projections through year 2045. The following subtasks will be performed:

DOCUMENT POPULATION GROWTH PROJECTIONS

Stantec will document the historical population for the past 20 years and the projected population, housing, and employment growth for the District service area through 2045. The projections will be based on the most current DWR GIS projection tool and will be adjusted to match the District's service area. Growth projections will be tabulated in the report.

DOCUMENT LAND USE PLANS

Stantec will review the current agency general plans and relevant specific plan of Los Angeles County and neighboring cities to update the current demand projections and timing for these plans. The timing of projected developments will be based on the Districts current development status reports and readily available information from City and County planning departments.

DOCUMENT HISTORICAL WATER USAGE BY USER CLASS

Stantec will update the historical water billing data from the previous UWMP using monthly billing data from 2015 through 2019. Water consumption statistics per meter by user class (such as mean, median standard deviation, percentiles) will be updated for use in later tasks.

UPDATE INDOOR/OUTDOOR AND SEASONAL DEMAND ANALYSIS

Stantec will use updated climate and water usage data to update the indoor/outdoor and seasonal water demand analysis presented in the previous UWMP. These data will be used to estimate water conservation potential.

DEVELOP WATER DEMAND FACTORS

Stantec will review existing water demand factors used in previous planning documents and compare with the recent water usage data. These demand factors will be revised if needed to reflect current usage trends.

PREPARE 25-YR WATER DEMAND PROJECTIONS

Using growth projections, the land use plans and planned development information, Stantec will prepare an updated water demand projection for the period of 2020-2045 using the water demand factors developed in Task 4.3.5. Demand projections will account for the water savings due to efficiency and implementation of demand management measures. Stantec will include distribution system water loss for each of the five years preceding the plan update.

LOW INCOME HOUSEHOLDS

Water code §10631.1 requires the water use projections to include projected water use for single-family and multifamily residential housing needed for lower income households. The intent of identifying water use for lower income households will assist a supplier with the requirement under §65589.7 of the Government Code to grant priority for the provision of service to housing units affordable to lower income households.

4.4 Document Existing Water Conservation Measures

In previous UWMPs, it was required to establish a baseline water use and set target water use goals for 2020, seeking a 20-percent reduction in per capita water use. In the 2020 UWMP actual water use must be demonstrated, as compared to the previously established 2020 target. Based on information provided Stantec will update the data and methods used to establish baseline, target, and actual gallons per capita per day use within the framework of the SB X7-7 Verification Form.

UWMP legislation no longer allows water suppliers that are members of the California Water Efficiency Partnership (formerly the California Urban Water Conservation Council (CUWCC) to submit its annual reports to comply with this section of the UWMP. Water Code §10631(e) requires water suppliers to provide a description of their water demand management measures (DMMs) including: 1) a description of each DMM currently being implemented or scheduled for implementation, 2) a schedule for implementing all DMMs, 3) a description of the methods used to evaluate the effectiveness of DMMs, and 4) an estimate of existing conservation savings and the effect of the savings on the supplier's ability to further reduce demand.

Stantec will meet with District staff and obtain the current Best Management Practices (BMP) reporting filed with the CUWCC. Stantec will work with District staff to obtain the required information on BMP implementation and prepare the demand management narrative to summarize current programs, progress, and effectiveness of current programs. Stantec will review the BMPs and make general recommendations to the District for future BMP implementation.

4.5 Summarize Recycled Water Plan

Water Code §10633(a-g) requires water suppliers to provide information on recycled water and its potential use in the service area. Stantec will extract relevant information from previous recycled water plans and supporting planning documents and incorporate the following information in the UWMP report:

- Description of the wastewater collection and treatment systems in the supplier's service area.
- Amount of wastewater collected and treated and the methods of wastewater disposal.
- Quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.
- Description of the type, place, and quantity of recycled water currently being used in the supplier's service area.
- Description and quantification of the potential uses of recycled water, consisting of agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.
- Projected use of recycled water within the supplier's service area at the end of 5, 10, 15, 20, and 25 years, and a description of the actual use of recycled water in comparison to uses previously projected.
- Description of actions, including financial incentives, which 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.
- Description of any plans for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

It is anticipated that the District will provide Stantec with an electronic copy of the recycled water master plan and any supporting data required for inclusion in the UWMP. To extent that this information is not readily available for inclusion in the UWMP, Stantec will work with staff to identify such information and will provide a separate fee estimate to develop that information.

4.6 Summarize Current and Projected Water Supply Plan

Water Code §10635 requires a water supplier to assess water supply reliability during normal, dry, and multiple dry years. This assessment compares the total water supplies available to the District with the total projected demand over the next 25 years. Stantec will perform the following subtasks to prepare this assessment and develop a recommended plan.

COMPARE WATER DEMAND PROJECTS AND EXISTING SUPPLIES

Stantec will prepare tables and text comparing the existing water supplies with the projected water demands to indicate the need and timing for additional supplies. This comparison will be made in five-year increments between 2020 and 2045 in normal, single dry, and multiple dry years. Stantec will identify the timing and magnitude of the District's water supply needs.

DESCRIBE WATER QUALITY IMPACTS ON RELIABILITY

Water Code §10634 requires that an UWMP include information relating to the quality of existing water sources and the manner in which quality affects water management strategies and supply reliability. Stantec will prepare a discussion of important water quality factors that affect or could affect existing water supplies and will quantify, to the extent practicable, the potential effect that quality degradation could have on supply reliability.

DESCRIBE OVERALL WATER SUPPLY RELIABILITY FOR PLANNING PERIOD

Stantec will summarize the preferred water supply plan and will document the projected supply reliability for normal, single dry year, and multiple dry years in five-year increments from 2020 through 2045.

4.7 Review and Update Water Shortage Contingency Plan

Stantec will review and update 2016 LVMWD Water Shortage Contingency Plan (WSCP) to comply with Water Code §10632 which requires water suppliers to provide an urban water shortage contingency analysis. Stantec will review the existing water shortage contingency plan and make appropriate revisions consistent with the UWMP updates.

4.8 Seismic Risk Assessment and Mitigation Plan

§10632.5 which requires water suppliers to provide a seismic risk assessment and mitigation plan. Stantec will review the 2019 LVMWD Hazard Mitigation Plan for compliance with the 2020 UWMP update. Stantec will prepare the necessary narrative updates in the 2020 UWMP update to comply with current regulations. Stantec does not anticipate field work or quantitative seismic evaluation is required and is excluded from the scope of work.

LVMWD Task 4 Anticipated Support:

- Provide data as requested
- Provide GIS database for water system
- Provide input and review on methodologies

Task 5 PREPARE UWMP REPORT

Stantec will prepare the 2020 UWMP and WSCP plans for the District summarizing the results of Task 4. The report will be prepared consistent with the DWR's 2020 UWMP published guidelines. Supplemental information developed as part of the water supply update will be documented in appendices to the UWMP report.

5.1 Prepare Draft 2020 UWMP Report

Stantec will prepare an administrative draft 2020 UWMP and WSCP and submit an electronic copy (MS Word) to the District for review. Stantec will schedule a teleconference to discuss any District's comments on the draft plan. The draft plan will be presented to the LVMWD board and will be subject to a 60-day public comment period. Five printed copies and one electronic (PDF) copy will be provided for the draft report. It is anticipated that the public draft report will be made available for review at the District's office, on the District's web site, and through e-mail to interested parties.

5.2 Prepare and Submit Final Report

Following the public hearing on the draft 2020 UWMP and WSCP Update, Stantec will make revisions as appropriate and prepare the Final 2020 UWMP and WSCP Update addressing issues described on DWR's UWMP "Review for Completeness" form. Stantec will also append the "Review for Completeness" to the Final 2020 UWMP report and submit to the District for final Board approval. The approved 2020 UWMP is required to be submitted to DWR 30 days after District Board approval and prior to the deadline of July 1, 2021. Stantec will work with the District to submit the District Board approved 2020 UWMP update to DWR.

Task 5 Deliverables:

- One electronic (PDF) copy of the draft report.
- Five printed copies and one electronic (PDF) copy will be provided for the final report. Stantec will also provide individual electronic files for report text, figures, tables and graphics (MS Word, Excel, or another appropriate format).

LVMWD Task 5 Anticipated Support:

- Provide review on draft plans
- Attend meetings
- Host public hearing

Work Schedule

We have prepared a proposed schedule for completing the Las Virgenes 2020 UWMP before the DWR deadline of July 1, 2021. A Gantt chart style schedule with key project tasks is shown below. Assuming a notice to proceed by September 15, the project would be completed by the end of June 2021. Our schedule assumes the District staff will be able to review and comment on draft work products within short windows of time.

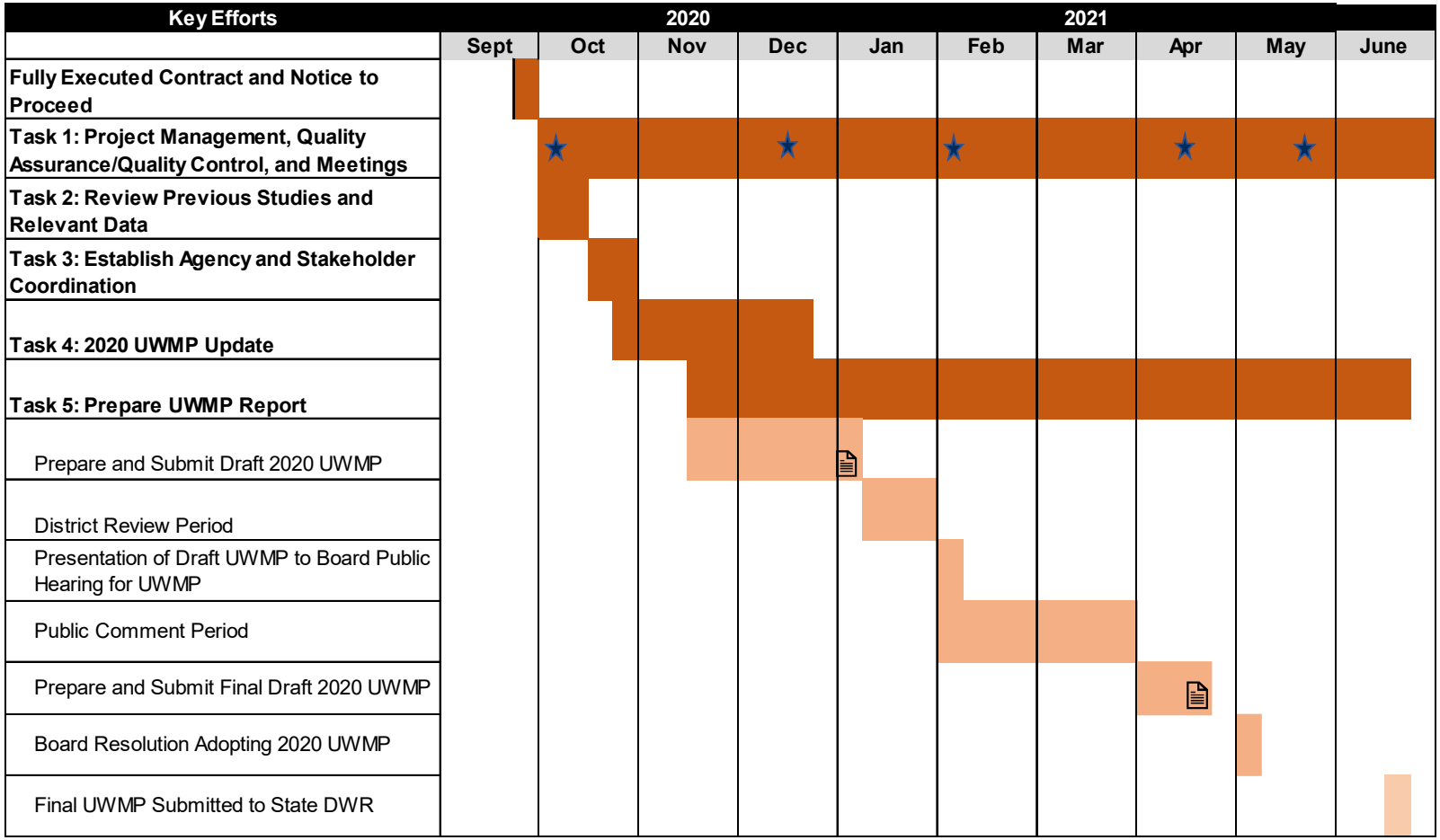


Figure 5 – Proposed Work Schedule

D. Team Experience in Similar Projects and Results

Our water resources professionals provide a wide variety of services throughout California, including preparation of urban water management plans, integrated water resources master planning, operations and yield modeling, climate change assessments, integrated ground and surface water modeling, hydrology and hydrogeology, aquifer recharge, storage and recovery, conjunctive use of surface water and groundwater, and database management. Our local staff have a long and successful history of working with municipal, state, and federal water resources agencies nationally and throughout California. In California, we have been involved with planning of several of the largest water resource projects recently completed or currently under development. Please see the table below for a summary of our team experience.

Table 2 – Stantec's Team Past Experience Similar to Proposed Project

Team Member	Stantec's Team Past Experience Similar to Proposed Project									
	Planning Scenario Development	Water Supply Portfolio and Demand Analysis	Infrastructure Planning and Assessment	Threat and Vulnerability Assessments	Climate Change Risk Analysis	Trade-Off Analysis and Structured Decision-Making	Economic and Financial Analysis	Master Planning and Implementation Strategy Development	Experience with Legislative Requirements and UWMP Preparation	GIS Experience
Jim Cathcart	✓	✓	✓	✓			✓	✓	✓	
Tama Snow	✓	✓	✓	✓			✓	✓	✓	
Autumn Glaeser	✓	✓	✓	✓	✓	✓	✓	✓		✓
Adelina Pirijanyan	✓	✓	✓	✓			✓	✓		✓
Kevin Hernandez	✓	✓	✓	✓			✓	✓	✓	✓
Stephanie Soldo	✓	✓	✓	✓						
Chisa Whealan										✓
Yung-Hsin Sun	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Tyler Hadacek			✓					✓		
Craig Wilcox			✓					✓		
Tom Regan		✓	✓				✓	✓	✓	

The following pages include relevant projects completed by our firm, our project manager, and project engineers within the past that are similar in nature to your project. Key team members are stated accordingly. We encourage you to contact our team's client references for more information about our contributions towards the success of these projects.

Table 3 – Stantec's Past Experience Similar to Proposed Project

Client	Project	Past Experience Similar to Proposed Project								
		Planning Scenario Development	Water Supply Portfolio and Demand Analysis	Infrastructure Planning and Assessment	Threat and Vulnerability Assessments	Climate Change Risk Analysis	Trade-Off Analysis and Structured Decision-Making	Economic and Financial Analysis	Master Planning and Implementation Strategy Development	Experience with Legislative Requirements
Casitas Municipal Water District	Casitas Municipal Water District Comprehensive Water Resources Plan	✓	✓	✓	✓	✓	✓	✓	✓	✓
Anaheim Master Plan	Anaheim Master Plan		✓	✓					✓	
Elsinore Valley Municipal Water District	Elsinore 2015 Urban Water Management Plan		✓							✓
Coachella Valley Water District	Coachella 2015 Urban Water Management Plan		✓							✓
Regional Water Authority	Regional Water Reliability Plan and WaterSMART Regional Drought Contingency Plan	✓	✓	✓	✓	✓			✓	✓
Regional Water Authority	American River Basin Integrated Regional Water Management Plan and Updates		✓		✓	✓			✓	✓
U.S. Department of the Interior, Bureau of Reclamation	American River Basin Study	✓	✓	✓	✓	✓	✓			✓
San Juan Water District	Wholesale Water Management and Reliability Study	✓	✓	✓			✓	✓	✓	✓
City of Roseville	Groundwater Strategic Plan		✓	✓		✓	✓		✓	✓
City of Roseville	Recycled Water Program Expansion Evaluation			✓			✓	✓	✓	✓
Western Placer County	Western Placer County Groundwater Management Program Implementation			✓		✓			✓	✓
California Department of Water Resources	California Water Plan Update	✓	✓		✓	✓				✓
California Department of Water Resources	SGMA Support, California Department of Resources, California	✓	✓		✓	✓				✓
California American Water	Statewide Comprehensive Planning Studies and Condition Based Assessments for the Sacramento, Sonoma, and Los Angeles Districts	✓	✓	✓			✓	✓	✓	✓
East Valley Water District	Sewer and Water Master Plans		✓	✓					✓	
Los Angeles County Department of Public Works	Water System Master Plan		✓	✓					✓	
Elsinore Valley Municipal Water District	Future System Supply Alternatives Analysis	✓	✓	✓	✓			✓	✓	
Castle Pines North Metropolitan District	Strategic Water Resources Plan	✓	✓	✓			✓	✓	✓	
Fort Collins Utilities	Water Supply Vulnerability Study	✓			✓	✓				✓

Casitas Municipal Water District Comprehensive Water Resources Plan

Client: Casitas Municipal Water District

Client Reference:

Julia Aranda, Engineering Manager
1055 Ventura Avenue
Oak View, CA 93022
(805) 649-4485
jaranda@casitaswater.com

Project Date:

December 2019 -Present

Key Personnel:

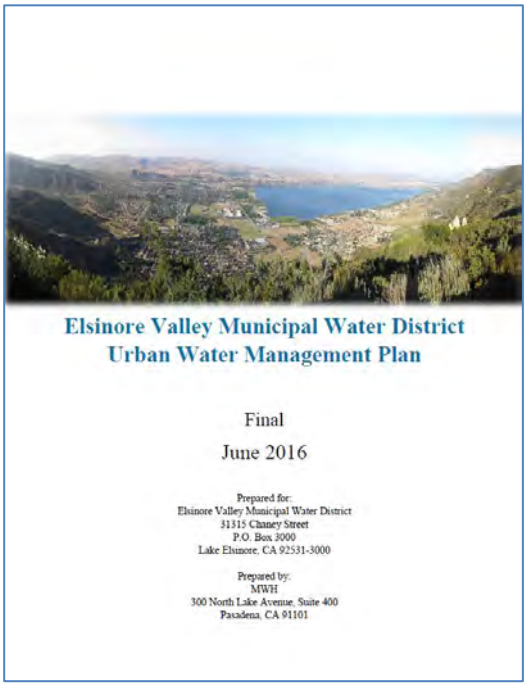
Autumn Glaeser, Manager
Yung-Hsin Sun, Technical Advisor

Project Description:

Stantec was hired by Casitas Municipal Water District (Casitas) to prepare a Comprehensive Water Resources Plan (CWRP) to evaluate their future water supply needs. The CWRP presents a strategy for addressing current and future water supply challenges, risks, and opportunities to meet the needs of Casitas customers. The CWRP is based on a review of a wide range of available options and strategies, and consists of an adaptive approach to providing a reliable and sustainable water supply for Casitas.

Lake Casitas is the primary source of supply for Casitas Municipal Water District. Yield estimates for Lake Casitas were developed by Stantec using an updated computer model to simulates all inflows and outflows on a monthly time step for a 74-year period (1945-2018). Stantec's model updates included considerations for climate variability, probabilistic approach, and Casitas' Water Efficiency and Allocation Program (WEAP).

Stantec worked closely with Casitas to perform stakeholder outreach, development of a decision support tool, project option screening process, and developed a series of portfolios that led to the ultimate recommended water supply portfolio outlined in the final CWRP. The CWRP is currently out for public review.



Elsinore Valley Municipal Water District 2015 Urban Water Management Plan

Client: Elsinore Valley Municipal Water District

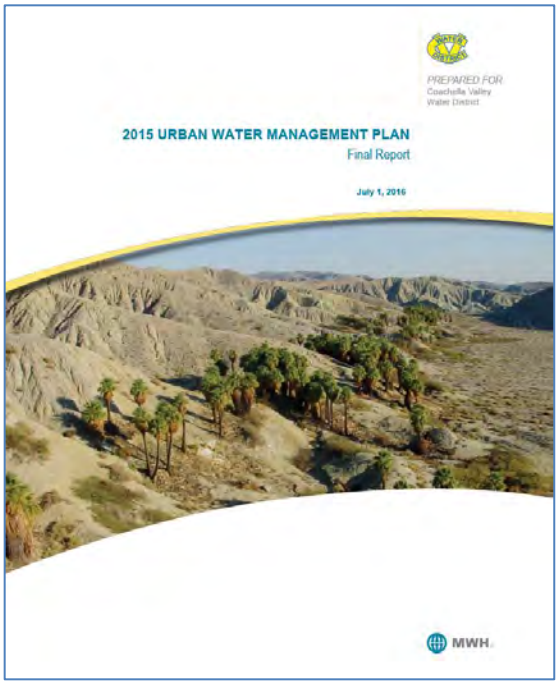
Project Date:
2015-2016

Relavance to Your Project:

- ✓ Urban water management plan update
- ✓ Familiarity in the District's region-of-interest

Client Reference:
Parag Kalaria
Elsinore Valley Municipal Water District
31315 Chaney Street/PO Box 3000
Lake Elsinore, CA 92531
(951) 674-3146

Project Description: Stantec, formerly as MWH, worked with the Elsinore Valley Municipal Water District to update their 2010 UWMP to achieve on-time and on-budget submittal of a compliant plan to the State of California.



2015 Urban Water Management Plan

Client: Coachella Valley Water District

Project Date:
2015-2016

Relavance to Your Project:

- ✓ Urban water management plan update
- ✓ Familiarity in the District's region-of-interest

Client Reference:
Coachella Valley Water District
1918 Coachellay Valley
Palm Desert, CA 92236
(760) 398-2651

Project Description: Stantec, formerly as MWH, worked with the Coachella Valley Water District to update their 2010 UWMP to achieve on-time and on-budget submittal of a compliant plan to the State of California.

Engineering Services for Water Master Plan Update

Client: City of Anaheim

Client Reference:

Julia Aranda, Engineering Manager
1055 Ventura Avenue
Oak View, CA 93022
(805) 649-4485
jaranda@casitaswater.com

Project Date:

December 2019 -Present

Key Personnel:

Jim Cathcart, Project Manager

Project Description:

The primary objectives of the WMP update will provide Anaheim with a roadmap for long-term capital improvement and water resource planning.

The WMP will reflect recent improvements and changes made to Anaheim's water infrastructure and prepare Anaheim for the next 20 years of capital planning and necessary upgrades. The objectives will be accomplished by:

- Developing water demand projections and water resources supplies
- Using Anaheim's hydraulic model (Innovyze's InfoWater) to evaluate existing and build-out conditions, water supply sources, storage, fire flow, and system specific conditions
- Performing various Analyses, Needs Assessments and Mini Studies (Well Plan, Moving water across City, Water Age etc.)
- Using Anaheim's asset management software (Innovyze's InfoMaster) to evaluate pipeline replacement requirements and prioritization
- Developing a 20-year capital improvement plan with each project identified, scope description, project costs, project initiation triggers, and anticipated construction time

Stantec is updating the City's master plan focusing on updating water demands and use factors to reflect the impact of conservation and changing urban density patterns, calibrating the existing water distribution model, and preparing an asset management program to address aging infrastructure. The goal is to develop an updated plan that Anaheim can rely on for Capital Planning through the 2040 planning horizon.

E. Resource Commitments of Team Members

Our key staff are committed for the duration of the project.

Table 4 – Stantec's resource commitment of team members

Team Member	PIC & QA/QC Snow (10% Availability)	Project Engineer Pirijanyan (40% Availability)	PM Glaeser (40% Availability)	Associate Engineer Hernandez (10% Availability)	Staff Engineer Soldo (60% Availability)	GIS Tech Whelan (30% Availability)	TOTAL HOURS
TASK 1 - Project Management, Quality Assurance/Quality Control, and Meetings	20	8	46	0	17	0	91
TASK 2 - Data Collection and Review	0	4	4	2	6	0	16
TASK 3 - Establish Agency and Stakeholder Coordination	0	2	6	8	16	0	32
TASK 4 - UWMP Update	0	20	10	10	40	30	90
TASK 5 - Prepare UWMP Plan	0	14	14	12	20	20	80
TOTAL TASKS	**20**	**48**	**80**	**32**	**99**	**50**	**329**

Table 5 – Stantec's resource commitment by task

Task	Stantec Resource Commitment by Task
Task 1	• Autumn Glaeser will perform project management tasks and attend meetings • Tama Snow will perform quality assurance and quality control • Adelina Pirijanyan will attend meetings as needed • Stephanie Soldo will assist with project administrative tasks and attend meetings
Task 2	• Autumn Glaeser will coordinate with LVMWD • Adelina Pirijanyan will oversee data collection and report review • Kevin Hernandez will review data • Stephanie Soldo will review data
Task 3	• Autumn Glaeser will coordinate with LVMWD and stakeholders • Adelina Pirijanyan will oversee Stakeholder coordination • Kevin Hernandez will perform task • Stephanie Soldo will perform task
Task 4	• Autumn Glaeser will coordinate with LVMWD • Adelina Pirijanyan will oversee update and projections • Kevin Hernandez will perform task • Stephanie Soldo will perform task
Task 5	• Autumn Glaeser will coordinate with LVMWD • Adelina Pirijanyan will oversee the plan preparation • Kevin Hernandez will perform task • Stephanie Soldo will perform task

F. Professional References, Resumes, and Experience

Established in 1954, Stantec began providing water resource engineering services to improve the quality of life in communities where it worked. Over the last 64 years, we have added a full complement of engineering and planning disciplines to our portfolio to better serve the needs of our clients. We take pride in a long history of being part of the communities we serve.

Today, Stantec is a community of approximately 22,000 employees working in over 400 locations worldwide, 25 in California. With 1,300 employees in California, we care about the communities we serve—because they're our communities too. This allows us to assess what's needed and connect our expertise, to appreciate nuances and envision what's never been considered, to bring together diverse perspectives so we can collaborate toward a shared success.

We're planners, designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe.

Stantec has been a key participant on some of the world's largest and most technologically significant water resources and civil engineering projects. As such, Stantec has developed industry-leading project delivery processes and over the years has continually refined and improved the services and products we provide to our clients. Our key staff have a long and successful history of working with local, municipal, state, and federal water resources agencies. In California, we have been involved with planning of several of the largest water resource projects recently completed or currently under development.

Company Name	Stantec Consulting Services Inc.
(Ownership) Incorporation Date	August 27, 1929
Jurisdiction of Incorporation	New Year
Local Employees (California)	1,300
National Employees	22,000
Office Location where the majority of the work will be done	Santa Barbara, CA and Pasadena, CA
Proposer's Point of Contact and signing authority	Autumn Glaeser, PE Project Manager Santa Barbara, CA (805) 285-9093 Autumn.glaeser@Stantec.com

Project Performance and References

We encourage you to contact our team's client references for more information about our contributions toward the success of these projects.

Table 6 – Stantec's Professional References

Client	Team Member	Reference
Casitas Municipal Water District	Autumn Glaeser, PE Jim Cathcart, PE	Julia Aranda, PE, Engineering Manager (805) 649-4485 jaranda@casitaswater.com
California Department of Water Resources	Yung Hsin Sun	Lewis Moeller, Project Manager (916) 653-5666 Lewis.Moeller@water.ca.gov
Eastern Municipal Water District	Adelina Pirijanyan, PE	Laura Baraza Senior Civil Engineer – Facilities Planning barrazal@emwd.org (951) 928-3777 ext 4228

Summary of Collective Expertise

On the next pages we have included resumes for our select water resource and contributing specialists.

James Cathcart PE

Technical Advisor
43 years of experience

Jim has more than 43 years of experience specializing in water resources supply and development in California and throughout the western US. His technical experience includes program/ project management and engineering specializing in planning; design; construction management of water, wastewater, and reclamation infrastructure; computer modeling; master planning; ground and surface water treatment; transmission and storage; and pipeline design. He also has provided expert witness services for water system planning, modeling, and design.

EDUCATION

MS, Civil Engineering, California State University at Long Beach, Long Beach, California, 1983

BS, Civil Engineering, State University of New York at Buffalo, Buffalo, New York, 1977

AA, Liberal Arts, Niagara Community College, Niagara Falls, New York, 1973

CERTIFICATIONS & TRAINING

Fellow, American Society of Civil Engineers, Irvine, Calfornia, 2015

REGISTRATIONS

Professional Engineer #C31518, State of California, December 31, 2018

Professional Engineer #CE014350, State of Nevada, December 31, 2018

MEMBERSHIPS

Member, Transient Analysis Task Committee, American Society of Civil Engineers

Member, DPR Standards Committee, American Water Works Association

Past Chair, Water Resources Planning and Management Committee, American Water Works Association

Member, Recycled Water Committee, American Water Works Association

Life Member, American Water Works Association

Fellow/Life Member, American Society of Civil Engineers

Member, WateReuse Association

Member, Orange County Water Association

Peer Reviewer, American Water Works Association

Member, Reclaimed Water Standards Committee, American Water Works Association

PROJECT EXPERIENCE

Water and Wastewater Master Plan and Data Conversion* | Capistrano Beach Water District | Orange County, California | Principal-in-Charge

Jim lead the planning efforts for this combined water and wastewater master plan. The project included future land use and population planning and demand projections. Wastewater flow projections were based on flow monitoring results from select areas of the District. Both systems were modeled to assess system adequacy and future improvements. Particular emphasis was placed on an aging sewer main along the coast. This sewer had experienced sagging and infiltration problems, and improvement analysis consisted of rehabilitation and replacement alternatives. In a parallel project, he coordinated conversion of the District's paper map system to a digital database.

Water Master Planning* | Various Cities, California | Project Engineer/Project Manager

Jim prepared several water master planning studies for Torrance, Fullerton, Oxnard, Thousand Oaks, Capistrano Beach, and Santa Monica, California; and Sunnyside, Washington; as well as for residential and commercial developments. These studies included steady-state and time-dependent computer system modeling. System improvement recommendations total more than $185 million. He also completed master plan updates for Torrance and Fullerton, California. Work for the City of Sunnyside was recognized by the state's Department of Social and Health Services for the quality of the hydraulic analysis and report and was suggested as a model for other small water system master plans.

Water System Master Plan* | City of Torrance | Torrance, California | Principal-in-Charge/Project Manager

Jim provided overall project direction for an update to the City's 1993 master plan. In addition to updating previous planning data, work included integrating a new hydraulic model with the City's GIS data and investigating various water resource availability options including groundwater treatment, desalination, and water rights acquisition. Special emphasis was placed on improving the City's downtown redevelopment area, addressing groundwater quality issues, and the impact of existing and proposed water quality regulations.

** denotes projects completed with other firms*

Autumn Glaeser PE, QSD/P

Analysis Lead

15 years of experience
Santa Barbara, California

Autumn has more than 15 years of civil engineering and design experience involving public improvement projects. She is part of a water resource team specializing in all aspects of water, recycled water and sewer infrastructure projects. She is well versed in the management and preparation of feasibility studies, capacity evaluations, construction plans, specifications, estimates, and water and sewer modeling.

Autumn oversees both technical and professional personnel, interfacing with key public works agencies including state and local agencies. She has developed and maintains a working knowledge of local city, county, and state engineering and environmental regulations and has extensive experience with design of pipelines, pump stations, lift stations and water wells.

Autumn has extensive state revolving funding experience and has collaborated with the agencies applying for over $52 million worth of projects that were funded. She is part of a virtual team of 20+ funding experts throughout the US to provide the specific knowledge required for each project. Autumn is proficient in a variety of specialized computer applications including AutoCAD Civil 3D, WaterGEMS, SewerGEMS, HydroCAD, and ArcGIS.

Prior to joining Stantec, Autumn was employed as a Project Engineer with the City of Santa Barbara on the Water Resources Design team. She was involved in all aspects of design for the water and wastewater treatment plants, collections system and water distribution system. She worked closely with the Water Resource management team and maintenance and operation staff to prepare final design plans and specifications for various capital improvement and maintenance projects.

EDUCATION

BS, Civil Engineering, California State University, Long Beach, California

REGISTRATIONS

Professional Engineer #76574, State of California

MEMBERSHIPS

Past President, Past Vice President, and Past Treasurer, Santa Barbara-Ventura Branch, American Society of Civil Engineers

Member, American Society of Civil Engineers

Past West Coast Deputy Chair of the Collegiate Leadership Coaching Committee, Society of Women Engineers

PROJECT EXPERIENCE

Comprehensive Water Resources Plan | Casitas Municipal Water District | Oak View, California | 2019-Present | Project Manager

Casitas Municipal Water District has been impacted by the most recent drought and hired Stantec to prepare their Comprehensive Water Resources Plan. Autumn has led the project as Project Manager from the initial stakeholder outreach through the analysis of the safe yield and safe demand on Lake Casitas. The project has included stakeholder outreach, various presentations at Casitas' Water Resources Committee, preparation of a variety of technical memorandums which will be summarized in a draft plan to be presented to the Casitas Board and public.

Water System Master Plan | Casitas Municipal Water District | Oak View, California | 2020-Present | Project Manager

Casitas Municipal Water District last water master plan was prepared in the 70's. Autumn is the project manager on the preparation of the Casitas Water System Master Plan which includes an updated hydraulic water model, facility condition assessment, and an updated plan.

CBS and CBA Report Updates| California American Water Company (Cal Am)| Various Locations, California | 2017-2018 | Senior Engineer/Technical Advisor

Autumn worked closely with the team as a senior engineer, technical advisor, and quality reviewer to update the water supply evaluations and water hydraulic models for multiple water districts throughout California. Scope of work included the evaluation of various Cal Am water distribution system including supply and demand evaluations, hydraulic model updates and creation including calibration, site visits, infrastructure evaluation, multiple workshops, draft and final technical reports.

Pasadena Water and Power 3-Year On-Call | Pasadena, California | 2016-2018 | Contract Administrator and Project Manager

Autumn has managed this on-call since 2016. We have scoped, staffed, and performed multiple task orders under this contract with Pasadena Water and Power (PWP) since 2016. These tasks have covered a wide range of engineering skills from planning studies, through design. Our tasks have included evaluation of an existing drinking water well, an existing potable water reservoir including coating evaluation performed with V&A Consulting, design and preparation of construction documents for approximately 15,000 linear feet of 8-inch to 24-inch water main, and landscaping plan for an existing reservoir site.

Santa Barbara Annual Water Main Replacement Project | City of Santa Barbara | Santa Barbara, California | 2016-Present | Project Manager

The City of Santa Barbara has had a goal of replacing one percent (three miles) of the water distribution system each year through their annual water main replacement program. This program was put on hold in response to the drought in 2013 to accommodate other projects for various water sources including groundwater wells and desalination. The changes in the operating conditions, coupled with aging infrastructure, resulted in a significant increase in water main breaks. Stantec is providing survey, drafting, and engineering design services to support the City of Santa Barbara's annual water main replacement projects. Since 2016, we have prepared construction documents for the replacement of over 17 miles of water main.

** denotes projects completed with other firms*

Tama Snow PE

Technical Reviewer

29 years of experience
San Diego, California

Successful water projects have two things in common – great engineers and great communicators. Tama is both. For over 29 years she has been planning and executing projects that improve water resources management capabilities for public, private, and regulatory clients. She loves helping clients develop strategic and sustainable solutions to their challenges. And over the years, having seen how intensive public scrutiny over innovative water projects in California has delayed and even prevented project implementation, she has become an expert in public outreach and communications. As part of the Stantec team to prepare SBVMWD's 2020 Integrated Regional Urban Water Management Plan, Tama will serve as a technical reviewer.

EDUCATION

Masters of Engineering, Cal-Poly Pomona, Pomona, California

BS, Civil Engineering, University of California at Irvine, Irvine, California

BA, Mathematics, University of California Riverside, Riverside, California

REGISTRATIONS

Engineer #56934, State of California

PROJECT EXPERIENCE

Watershed Asset Management Plan, City of San Diego, California, Quality Assurance/Quality Control Review

Stantec was retained by the City of San Diego to update the 2013 Watershed Asset Management Plan (WAMP). The update to the WAMP was developed to be a living document to assist the City with developing projects that foster sustainable delivery of its services, promote efficient financial and physical resource investments, prolong the life of the stormwater infrastructure and provides a mechanism to track performance in meeting levels of services.

Feasibility Study to Develop the Simi Valley Basin as a Potable Water Resource* | City of Simi Valley | Simi Valley, California | Project Manager

The project entailed evaluating utilizing groundwater from the Simi Valley Basin, which is of naturally poor quality, high in salinity, and requires treatment or blending with imported water to make it suitable for use as a potable water supply. The Study presented three alternatives to develop the Simi Valley Basin as a potable water supply. The alternatives evaluated well locations, treatment plant locations, treatment requirements, distribution system requirements, brine discharge requirements, and the capital, engineering and annual operations and maintenance costs. Tama assisted the District with preparing and obtaining a grant from the United States Bureau of Reclamation to cover fifty percent of the costs of the Study.

Urban Water Management Plan Update for Myoma Dunes Mutual Water Company*, Palm Desert, California, QA/QC Reviewer

Prepared a comprehensive planning document that met the UWMP requirements as set forth in the California Water Code. The project was completed within a very tight timeline of four months to fulfill the requirements of the Department of Water Resources (DWR) and maintain Myoma's eligibility for DWR Funding which was at risk. To complete the UWMP on this expedited schedule required quickly becoming familiar with the service area, distribution system and having knowledge of the stakeholders and identification of the data gaps and maintaining a strict and persistent schedule. Water use projections, SB X7-7 baselines and targets, supply availability and projections, water shortage contingency planning and the measures to be taken to management demands during a water shortage were all determined to satisfy the requirements of the CWC in a concise and transparent manner so that the plan could be released for public comment and the Board of Directors could approve and adopt the plan to maintain funding eligibility.

Johnson Utilities Comprehensive Planning Study* | EPCOR/Johnson Utilities | San Tan Valley, Arizona | Project Manager

Tama prepared an Integrated Water, Wastewater, Reclaimed Water and Water Resources Comprehensive Planning Study (CPS) to provide the utility with a capital improvement plan to address the numerous pressing and immediate needs, including water quality and water pressure issues and sanitary sewer overflows and determining best reuse of the recycled water of different qualities produced at three wastewater treatment plants. Improvements needed to the water, wastewater and recycled water systems were identified to address current issues, as well as prepare the Utility for future growth over 3-year, 5-year, 10-year, and build-out planning horizons. Best use of recycled water included groundwater recharge, identifying recycled water customers, and conducting a cost feasibility analyses.

Lake Forest Zone B to C Pump Station | Irvine Ranch Water District | Lake Forest, California | Design Manager

Stantec has been retained by the Irvine Ranch Water District to prepare construction plans and specifications for a new recycled water pump station. The project includes preparing a surged analysis, preparing plans and specifications for decommissioning an existing recycled water pump station and abandoning an existing groundwater well as well as preparing a preliminary design report, 60%, 90%, and 100% plans and specifications for a new recycled water pump station.

Port of Long Beach Recycled Water Study | Port of Long Beach (PoLB) | Long Beach, California | QA/QC Review

Stantec was retained by the Port of Long Beach to prepare a storm water harvesting study and recycled water feasibility study. The recycled water feasibility study included identifying and evaluating alternative sources of recycled water that could be available to supply the PoLB customers, evaluating the feasibility of constructing a wastewater treatment plant to be owned and operated by the PoLB, as well as identifying potential recycled water customers, identifying acceptable recycled water uses and preparing an engineer's estimate of probable construction costs for the various identified alternatives.

** denotes projects completed with other firms*

Adelina Pirijanyan PE, QSD

Planning Lead

19 years of experience
Pasadena, California

Adelina has more than 19 years of experience in water resources planning, with the majority of her experience being in water/wastewater master planning. Adelina has led various master planning efforts, completing tasks on time and budget. She has taken the lead on the coordination of multiple tasks with colleagues, subconsultants, and clients nationwide to prepare and presentat on project results at project management and executive levels. She has also successfully taken on the responsibility of tracking the schedule and budget for various projects. In addition, Adelina is skilled in hydraulic modeling and environmental data management, including data collection, input, quality assurance/quality control, verification, validation, and analysis. Her expertise includes applying geographic information systems (GIS) technologies and hydraulic modeling for potable/non-potable systems.

EDUCATION

BS, University of California, Irvine, Irvine, California

REGISTRATIONS

Professional Engineer #73785, State of California

PROJECT EXPERIENCE

Sustainable Water Master Plan* (SWMP) | City of Santa Monica | Santa Monica, California | Project Engineer

Adelina managed and updated Santa Monica's (City) 2014 Sustainable Water Master Plan. The City is updating sections of their SWMP due to recent changes to the City's supplies, demands, and policies considerations with the goal to eliminate City's dependence on imported water from Metropolitan Water District. The update includes analysis of the City's historical water demands, projection of future demands and a comprehensive plan addressing future water supply needs. Currently the City supplies imported and local water to approximately 93,000 residents covering approximately 8 square miles.

Vallecitos Water District Recycled Water Business Plan* | Vallecitos Water District (VWD) | San Marcos, California | Project Engineer

Adelina prepared a business plan for Vallecitos recycled water use by identifying potential recycled water opportunities for VWD, including both non-potable and potable reuse opportunities and at wholesale retail levels. VWD provides water, wastewater, and recycled water within northern San Diego County and is currently considering expanding their recycled water services.

2015 Wastewater Collection System Master Plan* | Eastern Municipal Water District | Perris, California | Project Engineer/Modeler

Adelina led the model evaluation and master plan report development for the master plan update. She is also working with the GIS team in the development and integration of tools for EMWD (District). The District has five sewer service areas: Moreno Valley, Perris Valley, Sun City, San Jacinto Valley and Temecula Valley. They provide wastewater collection and treatment services to approximately 555 square miles, owning and operating over 1,700 miles of sewer pipe, 51 active lift stations, and five regional water reclamation facilities.

City of Banning Water and Sewer System Master Plan | City of Banning | Banning, California | Design Engineer

Adelina performed the hydraulic and sewer analyses and model calibration, as well as planned and prepared the report for the Water and Sewer System Master Plan. The development included commercial and residential acreage encompassing approximately 1,500 acres in project development. The City did not have domestic water zoning for this area, therefore water pressure zones were defined, were sized, the domestic and sewer water network was routed for the development, water and sewer pipes were sized, pressure reducers and valves were required, a pump station and a force main line was necessary for the southwest portion of the project in order to deliver the sewage to the plant due to elevation restrictions.

Richland Creek Sewer Basin Dry and Wet Weather Calibration TM | Gwinnett County Department of Water Resources | Atlanta, Georgia | Modeling Engineer

Adelina is updating the wet weather calibration for County's Richland Creek sewer basin using Sewer GEMS and preparing a technical memorandum describing the calibration process and modeling results. Black & Veatch is providing assistance to Gwinnett County DWR in the development, maintenance and/or application of their Water GEMS, Sewer GEMS, and HAMMER models. The County uses Sewer GEMS to simulate sanitary loads within the system, and the models were last updated in the summer of 2012. The county has a total of 22 sewer basin models, Richland Creek basin being one. Richland Creek basin's sanitary sewer collection system consists of 4 sub-basins, approximately 8 sewer pump stations, 67 miles of gravity sewer, 6 miles of force main, and approximately 2,000 manholes.

U.S. Navy Geographic Information System Development | U.S. Naval Facilities Engineering Command, Southwest Division | Coronado, California | Project Engineer

Adelina is leading the compilation and conversion of multiple sources of data into a new GIS model, and verifying/updating location and attribute information through field surveys. Working shoulder-to-shoulder with the NAVY GIS Group to develop a GIS system that improves inventory tracking and optimizes asset usage and maintenance efforts. Utility systems being addressed include potable water, wastewater, gas, steam, compressed air, and electrical. The Navy's existing GIS data is being migrated to the new Utilities GIS Data Model v3.04 using the ESRI Data Interoperability Extension and custom Spatial ETL tools. Data Interoperability Extension is also being used to update the existing attribute data from external data sources, including the MAXIMO asset management system and the Navy's meter databases. The new GIS will contain some 70 layers, each containing 40 mandatory attributes, with more than 15,000 features.

** denotes projects completed with other firms*

Yung-Hsin Sun Ph.D, PE, D.WRE, ENV SP

Technical Reviewer

32 years of experience
Sacramento, California

Yung-Hsin is a principal engineer with 32 years of experience leading, managing, and planning large-scale multi-objective, interdisciplinary water resources projects for flood management, water supply and ecosystem restoration in US and other countries. He has comprehensive experience and knowledge regarding the development, policy, and operations of California water, including the Federal Central Valley Project and California's State Water Project. Dr. Sun has participated in many strategic planning activities for the development of integrated policies, water portfolio strategies, water infrastructures, and climate adaptation, His critical contribution has deep roots in his knowledge of water rights and regulatory framework, and his experience in water transfer and other innovative, modern integrated water management solutions. Dr. Sun has collaborated with leaders and decision makers to establish durable policies and implementation framework using combination of critical thinking and technical expertise in large-scale system optimization, surface water and groundwater hydrology, and decision support methodology. Dr. Sun is currently serving on the Board of Directors for the Water Education Foundation to promote lasting changes in water management through education.

EDUCATION

PhD, Civil and Environmental Engineering, UCLA, California

MS/MSc, Civil Engineering, National Taiwan University, Taiwan

BS/BSc, Civil Engineering, National Chiao Tung University, Taiwan

REGISTRATIONS

Professional Engineer #62911, State of California (PE)

Diplomate #00651, American Academy of Water Resources Engineers, Water Resources Engineer (D.WRE)

Envision™ Sustainability Professional (ENV SP), Institute for Sustainable Infrastructure

PROJECT EXPERIENCE

American River Basin Study (ARBS) (multiple projects) | US Bureau of Reclamation (Reclamation), Regional Water Authority (RWA), El Dorado Water Agency (EDWA) | 2016 – present | Sacramento, California | Principle-in-Charge, Strategic Advisor

Yung-Hsin served as the varying roles of strategist, architect, subject matter expert, and project manager in this ongoing multi-faced, multi-project, multiagency collaboration among Reclamation, RWA, EDWA, Cities of Sacramento, Roseville and Folsom, and the Sacramento Area Flood Control Agency. Yung-Hsin led the funding acquisition and concept for an integrated approach to unify the data and tools used by federal and local planning, examine root causes to climate vulnerabilities, and develop 7 basin-scale adaptation portfolios that create benefits to Reclamation's operation of Folsom Reservoir for all authorized Central Valley Project, and improve water resilience on the regional level and on individual agency level. Yung-Hsin choreographed the integration of several parallel key regional initiatives. He was also directly involved with the coherent strategy and individual implementation focus. Major work includes: (1) the RWA-led North American River Basin Regional Drought Contingency Plan (2017) in collaboration with local water agencies to identify regional mitigation actions and response actions to improve drought resiliency; (2) the RWA-led Regional Water Reliability Plan (2019) for modernizing the regional conjunctive use strategy with water market infusion for leveraging available water rights and contract entitlements in the region; and (3) the Water Resources Development and Management Plan (2019) for the EDWA to transform the agency's governance, programs, and strategies for integrated water management in El Dorado County. In addition, agency collaboration in implementing solutions customized for and implementable in headwaters and foothill environments that are predominately rural-agricultural.

Making Water Conservation a California Way of Life | Department of Water Resources (DWR) | Sacramento, California | 2016 - present | Senior Strategic Advisor, Contract Manager, and Subject Matter Expert

Yung-Hsin working closely with DWR and State Water Resources Control Board, led the development of the 2017 Framework document for *Making Water Conservation a California Way of Life* per Governor Brown's Executive Order B-37-16 to provided key recommendations on four areas including using water more wisely, eliminating water waste, strengthening local drought resilience, and improving agricultural water use efficiency and drought planning. The framework document satisfied the California Water Action Plan, Action 1, and led to the passage of Senate Bill 606 and Assembly Bill 1668 of 2018. Yung-Hsin supported DWR in the legislation outreach process and after the legislation was enacted, he analyzed the legislation for roles and responsibilities by various state and local agencies, and developed the *Primer of 2018 Legislation on Water Conservation and Drought Planning - Senate Bill 606 (Hertzberg) and Assembly Bill 1668 (Friedman)* as a core reference for implementation that received high praise from agencies and stakeholders for comprehensiveness, accuracy and clarity. He is the program manager for continued support to DWR in implementing the 2018 legislation, including water use standard development, technical analyses and evaluation, guidance and guidebook revisions, and coordination.

Framework for Evaluating Alternative Water Supplies: Balancing Cost with Reliability | Water Research Foundation | 2017-2018 | Denver, Colorado | Senior Advisor

Yung-Hsin was the senior advisor in this research project. The purpose was to conduct a utility survey for their planning and analytical framework for water supply planning under the deep uncertainties of climate change. Based on the survey and other literature research, the study developed a generalized framework that can be used by utilities of different sizes and geographic locations to approach climate change adaptation and strategy development. More than 20 utilities participated in the study include wholesalers and retailers of different geographic locations in the United States and abroad.

** denotes projects completed with other firms*

Kevin Hernandez EIT

Planning Team

4 years of experience
Pasadena, California

Kevin is a civil engineer with a background in planning projects. He has worked on multiple water and sewer master plans along with Urban Water Management Plans for agencies across southern California. For planning projects, Kevin has assessed agencies's future water supplies and demands through billing data and forecasting projections, run model trials with InfoWater and InfoSewer to identify system deficiencies, and developed capital improvement programs to guide agencies in the rehabilitation of their water and waste water systems. He has led various field efforts including condition assessments of water distribution systems and treatment facilities, water quality sampling for a water treatment pilot study, and installation of hydrant pressure recorders to collect data for model calibration.

EDUCATION

MS, Civil Engineering, California State Polytechnic University, Pomona, Pomona, California

BS, Engineering Sciences, Harvard University, Cambridge, Massachusetts

PROJECT EXPERIENCE

Nitrification Mitigation* | Los Angeles Department of Water and Power (LADWP) | Los Angeles, California

Kevin worked with LADWP on a variety of programs to help mitigate nitrification within their service area. This included a pilot test of UV light technology, sampling of tanks for biofilm to identify nitrifying bacteria, and planning testing LADWP could implement in the future.

City of San Bernardino Municipal Water Department - Sewer Master Plan | City of San Bernardino Municipal Water Department | San Bernardino, California

Kevin worked in InfoMaster to develop a risk-based condition assessment of the entire sewer system by looking at various factors that contributed to the consequence and likelihood of failure for all sewer pipes.

City of Newport Beach Water Master Plan* | City of Newport Beach | Newport Beach, California

Kevin used billing data and land use information to create demand factors, generated diurnal curves for system zones, ran model trials to identify system deficiencies, and conducted risk-based condition assessments for horizontal assets to help complete a water master plan for the City of Newport Beach.

Laguna Beach County Water District Water Master Plan Update* | Laguna Beach County Water District | Laguna Beach, California

For the update to Laguna Beach County Water District's Water Master Plan, Kevin assisted in an update to the existing hydraulic model, conducted a risk-based condition assessments of pipes, reservoirs, and pump stations, and created yearly projects for the District to implement over the next ten years.

City of Buena Park Sewer Master Plan* | City of Buena Park | Buena Park, California

Kevin assisted in the creation of a sewer model in InfoSewer and helped developed costs for the replacement of pipes.

Griffith Park Water Master Plan* | Los Angeles Department of Water and Power | Los Angeles, California

Kevin coordinated field work that tested hydrant flows and recorded hydrant pressures. This data was used for a water distribution model for the Griffith Park area in Los Angeles to help identify system alternatives for master planning and water quality.

Implementation of Project Management Software* | City of Long Beach | Long Beach, California

As part of a team, Kevin worked to develop a customized PMIS for the City of Long Beach. The software developed in-house could be used to manage a project's costs, RFIs, and submittals for the Long Beach airport, water department, public works department, and energy resources department.

Santa Monica Urban Runoff Recycling Facility Condition Assessment* | City of Santa Monica | Santa Monica, California

Kevin led a condition assessment of the Santa Monica Urban Runoff Recycling Facility (SMURRF) to identify individual assets to replace during upgrades to the treatment facility as part of a project that will increase the City's capacity to produce recycled water.

PRV, Interconnection, and Chlorination Station Replacement Plan* | Goleta Water District | Goleta, California

Kevin led a condition assessment of over forty PRV stations, three interconnections, and two chlorination stations and developed a replacement plan for Goleta Water District to identify aging assets within their system.

DBP Mitigation* | Goleta Water District | Goleta, California

Kevin developed alternatives to mitigate DBP formation in Goleta Water District's distribution system that were evaluated through a water quality model. Alternatives were scored by considering cost, feasibility, and reliability to recommend an alternative for preliminary design.

LADWP System Modeling* | Los Angeles Department of Water and Power | Los Angeles, California

Kevin supported in the development of multiple water distribution models covering the entire LADWP service area with the installation of hydrant pressure recorders to gather information used for model calibration.

Norwalk Water Loss Audit* | City of Norwalk | Norwalk, California

Kevin assisted in the review and validation of the City of Norwalk's water loss audit report submitted to the Department of Water Resources for the 2017 calendar year.

** denotes projects completed with other firms*

Stephanie Soldo EIT

Civil Designer, EIT
5 years of experience

Stephanie Soldo joined Stantec in 2012 when she moved to California from Colorado after completing her bachelors and finishing an internship with Engineers Without Borders. Currently an Engineer in Training with Stantec, Stephanie is passionate about engineering and making a valuable contribution through her work. Through her years at Stantec, Stephanie has provided various aspects of civil design, including overall utility design (water, sewer, storm drain), grading design, QSD/P inspections, NPDES compliance design, and structural design support for a variety of public and private projects. She has also supported various departments through research for special projects including water planning to business development. She collaborates with clients, reviewing agencies, and contractors to meet/exceed design, timeline, and quality expectations. Her proficiencies include AutoCAD (Civil 3D), Microsoft Excel, Word, PowerPoint, MS Office and RetainPro.

EDUCATION

B.S., Structural Civil Engineering, University of Colorado, Boulder, Colorado, 2011

MEMBERSHIPS

President, Santa Barbara Ventura Professional Chapter, Engineers Without Borders, USA, 2012-2014

Board Member, Santa Barbara/Ventura Chapter, American Society of Civil Engineers Younger Member Forum, Present

AWARDS

2015 Project of the Year Award - National Engineers Week Santa Barbara and Ventura Counties, Olmoti, Tanzania Water Supply

PROJECT EXPERIENCE

WATER

Casitas Municipal Water District Comprehensive Water Plan | Casitas Municipal Water District | Oak View, California | 2019-Present | EIT

Assisted in the research and development of multiple technical memorandums detailing out a long-term comprehensive water plan for the Water District's future after the District had been impacted by the most recent drought. The project included stakeholder outreach, various presentations at Casitas' Water Resources Committee, preparation of a variety of technical memorandums summarized in a draft plan to be presented to the Casitas Board and public.

Water System Master Plan | Casitas Municipal Water District | Oak View, CA, USA | 2020 | EIT

Casitas Municipal Water District last water master plan was prepared in the 70's. Stephanie is providing engineering support and analysis for the preparation of the Casitas Water System Master Plan, which includes an updated hydraulic water model, facility condition assessment, and updated plan.

Santa Barbara Annual Water Main Replacement Project | City of Santa Barbara | Santa Barbara, CA, USA | 2019-Present | Designer - EIT

Providing drafting and engineering design services to support the City's annual water main replacement projects.The City of Santa Barbara has a goal of replacing two percent (six miles) of the water distribution system each year through their annual water main replacement program. This program was put on hold in response to the drought in 2013 to accommodate other projects for various water sources including groundwater wells and desalination. The changes in the operating conditions, coupled with aging infrastructure, resulted in a significant increase in water main breaks.

Waller Park Recycled Water Supply Design | Laguna County Sanitation District | Santa Maria, California | 2019 | EIT

Provided drafting, design and research services for final engineering design of a recycled water main to supply Waller Park, a nearby County park facility. The project includes alignment analysis, design of a one million gallon storage reservoir, pump station and over 2 miles of 12 inch recycled water pipeline. The existing well will be used as a backup supply in the event recycled water is unavailable.

Village of Los Carneros | Goleta, California | 2015 | EIT

Designed and drafted the water main line and service connections for the Goleta-based high-density housing development, addressing unique challenges the property posed with many dwelling units on small parcels of land.

** denotes projects completed with other firms*

Chisa Whelan M.S.

Sr. GIS Analyst

18 years of experience
Irvine, California

Chisa has a Master's degree in Geographic Information Systems (GIS) and more than 15 years of work experience in Geographic Information Systems (GIS) applications: data acquisition, database management, spatial analysis, cartographic design, map/infographic creation, and online GIS application development. She has extensive technical expertise in ESRI ArcGIS, AutoCAD, Microsoft Office, and Adobe Creative Suites applied in a variety of fields including water/wastewater and natural resources management, flood risk analysis, groundwater monitoring, and environmental compliance.

EDUCATION

MS, Geographic Information Systems, University of Redlands, University of Redlands, CA, 2007

BS, Environmental Biology and Management, University of California, Davis, Davis, CA, 2001

PROJECT EXPERIENCE

Central Valley Flood Management Planning Program | California Department of Water Resources | Sacramento Central Valley, California, United States | GIS Lead

Chisa acted as lead GIS specialist and provided GIS support (spatial data evaluation, geodatabase design, and cartographic visualization) to the California Department of Water Resources (DWR) with its efforts to prepare the Central Valley Flood Protection Plan (CVFPP) and supporting documents as part of $5B California FloodSAFE Program for the Central Valley flood management effort. Chisa effectively coordinated and collaborated with DWR and subcontractors to gather hundreds of base layers, designed and managed geodatabases for cartographic and analytical purposes, developed map templates, and standardized symbology across various consulting firms and government agencies. She delineated, modified, and maintained the planning areas for the CVFPP development per project specifications and legal/functional definitions. She also conducted a variety of spatial analyses such as estimating the basin-wide flood economic damages in the Central Valley and measuring proximity to closest emergency facilities. Chisa delivered more than 100 figures and map displays ranging from 8"x11" to 45"x60" in size for public/stakeholder outreach workshops and numerous reports. Successfully delivered vast amounts of data, geodatabases, database query results, map/graphic displays, symbology layers, and ArcGIS map documents/templates upon completion of an 8-year long project.

Calaveras County Integrated Regional Water Management Plan Development (2007) | Calaveras County, California | GIS Specialist

Chisa coordinated with city and county personnel to acquire GIS base layers and designed the geodatabases structure. From this information, she created posters and figures for stakeholder workshops and public outreach activities. Chisa then designed study area maps and regional water user maps and created surface profiles and analyzed existing elevation data to approximate potential water supply options.

Narragansett Bay Commission (NBC) | Providence , Rhode Island | Lead GIS Specialist

Chisa provided GIS support for Combined Sewer Overflow (CSO) control facility planning, design, and construction conducted by Stantec and the Narragansett Bay Commission (NBC). She created, managed, and maintained the project geodatabase within the Stantec enterprise GIS system and continuously update numerous map documents based on the project GIS Users Guide standards established by Stantec for this multi-agency collaborative effort. Chisa also created public outreach posters and report figures to evaluate the various wastewater infrastructure alternatives based on different technical feasibility and affordability criteria.

California Water Plan Update 2018 | Department of Water Resources | Sacramento, California | GIS Lead

Providing ongoing GIS support (data acquisition, geodatabase design/management, spatial analysis, and cartographic design) to the California Department of Water Resources (DWR) to publish the California Water Plan Update 2018. 50+ maps have been created based on various indicators (data and information used as measurement of progress in California water management effectiveness). Indicator data was collected from multiple sources in various format. Coordinated and collaborated with a team of water resource engineers to most effectively and efficiently process the vast amount of data that was collected. ArcGIS suite was used to carefully select, process, and standardize data to most effectively quantify and clearly represent information about the current and future water management conditions at a state level or sometimes at a watershed-scale. Not all data are relevant to decision making in all regions in the State, applicable, or most current to assess water management sustainability. Spatial analysis was conducted to process most current census data or watershed-level data to derive a broader statewide data to fill data gaps and to establish a single comprehensive, uniform, and practical method for tracking/reporting water management effectiveness in California.

Owens Lake Groundwater Evaluation Project and Owens Lake Master Project Groundwater Working Group Support | Los Angeles Department of Water & Power | Inyo County, California | GIS Lead

Chisa is providing ongoing GIS support for the identification of new well locations for dust control mitigation on Owens Lake. Mapped the surface geology, groundwater contours, and water quality surrounding the Owens Lake Bed. She has assisted the public outreach program in creating tri-fold brochures for the Owens Lake Master Project.

* denotes projects completed with other firms

Tom Regan PG, CEG, CHG

Hydrogeologist

38 years of experience
Pasadena, California

Tom has more than 38 years of experience in groundwater resources management, development and protection. His responsibilities have included feasibility and assessment of impacts related to groundwater resources development, groundwater basin analysis, aquifer characterization, development of regional and basin-wide hydrologic inventories/water balances, development of hydrogeologic conceptual models, analysis of groundwater contamination impacting water supply wells, evaluation of coastal seawater barriers and seawater intrusion, well and well field siting, well design, permitting and construction oversight, well evaluation, well rehabilitation planning, permitting and oversight, hydrogeologic and geochemical investigations related to the siting of new and expansion of existing groundwater recharge facilities, analysis of recycled water travel times from groundwater recharge operations using storm water, imported water and recycled water, analysis of pumping test data, and well interference effects. Tom's experience also includes the design and implementation of field programs related to groundwater recharge and development.

EDUCATION

BA, Geological Sciences, University of California, Santa Barbara, Santa Barbara, California

REGISTRATIONS

Professional Geologist #5203, California

Certified Engineering Geologist #1655, California

Certified Hydrogeologist #327, California

MEMBERSHIPS

Member, Groundwater Resources Association of California

Member, National Groundwater Association

PROJECT EXPERIENCE

Groundwater Monitoring Well Installation, Destruction and Equipping, City of Palm Springs, Palm Springs, California | Project Hydrogeologist

In support of the City of Palm Springs' Wastewater Treatment Plant groundwater monitoring program, prepared a Groundwater Monitoring Well Installation, Destruction and Equipping Work Plan to the Colorado River Basin Regional Water Quality Control Board and supervised the drilling, construction and development of three new monitoring wells, the destruction of one monitoring well and the equipping of five monitoring wells.

Water Well Replacement Evaluation and Litigation Support | Caltrans District 8, Rialto, California | Project Hydrogeologist

Performed a water well replacement evaluation for Caltrans District 8 in support of condemnation proceedings related to the construction of State Highway 210 in Rialto, California. Prepared a report which provided recommendations for potential water well replacement sites based on a review and detailed analysis of local water well data and geologic and hydrogeologic conditions in the Rialto-Colton Groundwater Basin. Provided expert witness testimony via deposition.

Geologic and Geologic Hazards Analysis, Conversion of Former Gravel Pits Along the Santa Ana River to Groundwater Recharge Basins, San Bernardino, California | Project Geologist

On behalf of San Bernardino Valley Water Conservation District, performed a geologic and geologic hazards analysis of six proposed deep open pit groundwater recharge sites (former sand and gravel pits) adjacent to the Santa Ana River flood plain and San Andreas fault zone, to evaluate the potential for static and seismically induced slope failure, ground rupture, liquefaction, and flooding. Prepared a detailed report of findings with recommendations regarding the conversion of the former sand and gravel pits to groundwater recharge basins.

Groundwater Banking Feasibility Study White Wolf Groundwater Basin, Wheeler Ridge-Maricopa Water Storage District, Bakersfield Area, California | Project Hydrogeologist

Managed and conducted a preliminary groundwater banking feasibility study under the Department of Water Resources administered Proposition 13 Grant Funding Program to determine the technical feasibility of developing a full-scale conjunctive use project in the White Wolf Groundwater Basin in the southern San Joaquin Valley. The study involved seven tasks: Preliminary Data Review and Evaluation, Field Exploration and Analysis (Preliminary Geotechnical Investigation), Groundwater Exploration and Analysis, Groundwater Modeling, Reverse Flow Hydraulic Modeling of the 850 Canal, Conceptual Project Layout and Cost Estimate, and Final Report. A separate, but related study also involved the design, construction and operation of a pilot recharge basin using raw State Water Project (SWP) water to determine optimum wetting and drying cycles to maximize groundwater recharge.

Preliminary Hydrogeologic Evaluation and Groundwater Banking Study, Lancaster, California | Project Hydrogeologist

Managed a preliminary hydrogeologic investigation of groundwater-bearing deposits in the western Antelope Valley in support of a proposed 22,000-home residential development project. The study included the compilation and review of geologic data, the installation, development and testing of eight exploration wells to define and characterize the underlying aquifers, groundwater quality sampling and preparation of a hydrogeologic report summarizing the work performed with interpretations of the data obtained and recommendations for follow-up investigations. A separate investigation involved the design, construction, and operation of a pilot recharge basin to evaluate potential recharge capabilities using raw SWP water from the East Branch California Aqueduct.

** denotes projects completed with other firms*

Craig Wilcox PE, SE, LEED AP

Structural Engineer
39 years of experience

Craig has over 39 years of experience in the structural design of wastewater treatment plants, deep shafts, tunnels, industrial buildings and basins/reservoirs including the design of more than 100 major structures in California. He regularly serves as the expert Structural Engineer for underground and above ground water containing structures and facilities and has performed seismic evaluation studies, developed design criteria, structurally designed, technically peer reviewed, forensic researched, value engineered and performed structural field observations of many new and existing major structures. Some of his extensive experience can be seen below.

EDUCATION

BS/BSc, Architectural Engineering, California Polytechnic State University San Luis Obispo, San Luis Obispo, California, 1982

CERTIFICATIONS & TRAINING

AISC Seismic Design Provisions, AISC, Chicago, IL, 2010

ACI 350-06, ACI, Farmington Hills, MI, 2007

Certification (17083), National Council of Examiners for Engineering and Surveying, 2012

General Building Contractor No. 580619, State of California Department of Consumer Affairs Contractors State License Board, Los Angeles, California, 1989

ACI 318-11, ACI, Farmington Hills, MI, 2012

AQSCE 7-10, ACSE, Unknown, Unknown, 2012

PROJECT EXPERIENCE

Lancaster Water Treatment Plant | Sanitation Districts of Los Angeles County | Lancaster, California | Structural Engineer

Craig served as Structural Group Leader and Engineer for the Antelope Valley California 4 Water Treatment Plants Expansion Project. The project involves the addition of ozonation, flocculation/sedimentation basins, and chemical facilities of reinforced concrete and concrete block structures supported on cast in drilled hole piers.

5MG DYK Reservoir | East Valley Municipal Water District, San Bernardino CA | San Bernardino, CA | Principal Structural Engineer

Mr. Wilcox served as principal structural engineer for this 5 MG buried reservoir constructed within 500 yards of an active trace of the San Andreas Fault. The site specific design acceleration exceeded 1g and the design is in compliance with AWWA D110.

San Diego Pure Water | City of San Diego | San Diego, California | Structural Engineer

Craig provided structural engineering guidance and quality control for the design of structural improvements including the building, pipe racks, and structural elements.

Groundwater Replenishment Systems Advanced Water Treatment Facility | Orange County Water and Sanitation Districts | Orange County, California | Principal Structural Engineer

Craig was accountable for structural design in conformance with site-specific seismic criteria per the 2000 IBC. Adjacent to the Santa Ana River, the site is underlain by liquefiable sands requiring over 5,000 piles to be driven to dense sands below. The multi-story buildings house microfiltration, reverse osmosis, clear wells, and chemical facilities. The buildings have post-Northridge earthquake new steel moment resisting frames per FEMA 350, braced frames, and reinforced concrete shear wall lateral systems.

Vineyard Water Treatment Plant | Sacramento County Water Authority | Sacramento, CA | Structural Engineer

Serving as structural engineer, Mr. Wilcox performed structural and seismic engineering analysis, design, and consultation during the design of this new 100-mgd treatment plant. The new water treatment plant included the design and construction of three separate 2-story steel special concentric braced frame administration buildings, large concrete masonry, and steel-framed roof warehouses, along with maintenance facilities for trucks and equipment. The construction included chemical storage and injection facilities, a 20MG rectangular reinforced concrete clearwell, pump station, filters, flocculation and sedimentation basins, and wash water facilities.

Wastewater Treatment Plant Expansion | Santa Fe Irrigation District | San Diego, CA | Principal Engineer

Principal Engineer for the Santa Fe Irrigation District, San Diego California, Wastewater Treatment Plant expansion. This design build expansion includes a new reinforced concrete clarifier, reinforced concrete basins for an Actiflo system, centrifuge and solids handling building, pump and chemical facilities.

Grimes Canyon and Conejo Valley Reservoirs | Calleguas Water District | Thousand Oaks, CA | Principal Engineer

Mr. Wilcox was responsible for design of both 5MG reservoirs for the Calleguas Water District. One reservoir is a reinforced concrete below grade structure and the other is a steel above-grade reservoir. The high seismic accelerations at these two sites required innovative designs for connections of these round plain shaped reservoirs. Mr. Wilcox also led the design of the carbon fiber retrofit of PCCP pipe.

** denotes projects completed with other firms*

Tyler Hadacek PE

Process Engineer
7 years of experience

Tyler is a process engineer with experience in water, wastewater, and water reuse treatment, covering projects from master planning through conceptual design, final design, permitting, and support during construction. He has also has experience performing water quality studies and analysis, and stormwater monitoring. He currently serves as a project engineer on drinking water, stormwater, wastewater, water recycling, and water reuse studies, planning, and treatment design. His experience includes environmental remediation treatment of metals, hydrocarbons, and other trace contaminants, both conventional and advanced treatment plant design for water and wastewater, treatment plant rehabilitation and expansion, unit process retrofits, and wellhead treatment systems. He has been extensively involved in many recent integrated water resources and water reuse projects planning and designing water treatment facilities to leverage available water resources for beneficial use for water utilities, stakeholders, and the environment; this includes the Santa Monica Sustainable Water Infrastructure Project that will utilize treatment of stormwater, wastewater, and groundwater to supplement imported water supplies for use in the environment as well as future potable water. He has worked on treatment facilities that range from small well-head applications, to full scale plants of up to 500 mgd.

EDUCATION

Master of Science, Environmental Engineering, University of California at Los Angeles, Los Angeles, California, 2013

Bachelor of Science, Civil and Environmental Engineering, University of California at Los Angeles, Los Angeles, California, 2012

REGISTRATIONS

Registered Civil Engineer #84298, State of California, Expires: 2021

MEMBERSHIPS

Member, American Water Works Association

Member, California Water Environment Association

PROJECT EXPERIENCE

Advanced Water Treatment Plant – Full Scale Conceptual Design | Metropolitan Water District | California | Process Engineer

Tyler is currently involved in the conceptual-level process design of a 150-mgd advanced water treatment demonstration facility for the Metropolitan Water District. The demonstration facility is part of a potential regional water supply project that plans to augment groundwater supplies via indirect potable reuse. The full scale facility conceptual design was for treatment of secondary effluent from the LACSD Joint Water Pollution Control Plant through MBR, MF, RO, and UV/AOP.

Basis of Design – Advanced Water Treatment Plant | Las Virgines Municipal Water District | Calabasas, California | Process Engineer

Tyler oversaw basis of design development for an Advanced Water Treatment Plant (AWT) for water reuse for the Las Virgenes Municipal Water District. This is an indirect potable reuse project via surface water augmentation of the Las Virgenes Reservoir. He worked with the team on all treatment processes to develop design criteria, facility layouts, and cost estimates. He was the lead process engineer for the RO system and the development of the O&M cost estimate for the entire facility.

Chlorine Contactor Tracer Study | City of Simi Valley | Simi Valley, California | Project Engineer

Tyler was one of two lead engineers that conducted a plant-scale tracer study at a 15 MGD wastewater treatment plant in order to investigate actual contact times and re-rate the chlorine contactor for higher flow rates. He performed dosing calculations, developed the field procedures for the experiments, and helped execute all of the tests at the treatment plant which utilized hydrofluorosilicic acid and fluoride ISE probes. Tyler performed data analysis and co-authored the final report that summarized the study and its findings.

Coordinated Integrated Monitoring Plan (CIMP) | East San Gabriel Valley Watershed Management Group | San Gabriel Valley, California | Field Engineer

The East San Gabriel River Watershed Management Group is comprised of the cities of Claremont, La Verne, Pomona, and San Dimas. Victor was responsible for leading a team to develop the WMP and CIMP for the area encompassed by the group. The WMP is a requirement of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit Order No. R4-2012-0175 (Permit), which was adopted by the Los Angeles Regional Water Quality Control Board (Regional Board) and became effective on December 28, 2012. The CIMP involved an outfall and receiving water monitoring program and MS4 infrastructure database, as well as a non-stormwater monitoring program and effectiveness tracking program. Tyler was involved in conducting water monitoring and stormwater outfall monitoring. Sampling is performed at three receiving water sites for both wet and dry weather events and at three stormwater outfall sites for only wet weather events.

** denotes projects completed with other firms*

G. Definition of Resource Commitments on District Staff

The following is a summary as outlined in our proposed scope of work for the commitments on District staff.

Table 7 – LVMWD Resource Commitment Summary

Task	LVMWD Resource Commitment Summary
Task 1	• Provide relevant data per data request • Attend meetings • Review and process monthly invoices
Task 2	• Provide data not accessible online.
Task 3	• Review outreach material and correspondence from stakeholders
Task 4	• Provide data as requested • Provide GIS database for water system • Provide input and review on methodologies
Task 5	• Provide review on draft plans • Attend meetings • Host public hearing

Fee Schedule

"On schedule and on budget." The words every client wants to hear. It's all in the planning and preparation and, of course, having the right people and the right tools for the job. Stantec's project managers have established systems for maintaining tight control on budgets. As work initiates, we will capture actual costs with Stantec's state-of-the-art accounting system; a labor distribution report will be expedited on a weekly basis to the project manager, allowing for both review and tracking of costs. On a monthly basis, total costs incurred by task, including accruals, will be generated and forwarded for payment in the form of an invoice. Stantec's standard rate table is attached.

Table 8 – Stantec's Proposed Fee Schedule

	PIC & QA/QC	Project Engineer	PM	Associate Engineer	Staff Engineer	GIS Tech	TOTAL HOURS	Task Staff Cost	Task Direct Cost	TOTAL TASK COST
Billing Rate	$234	$219	$209	$185	$159	$159			(a)	
TASK 1 - Project Management, Quality Assurance/Quality Control, and Meetings	20	8	46	0	17	0	91	$ 18,749	$ 1,000	$ 19,749
TASK 2 - Data Collection and Review	0	4	4	2	6	0	16	$ 3,036	$ -	$ 3,036
TASK 3 - Establish Agency and Stakeholder Coordination	0	2	6	8	16	0	32	$ 5,716	$ -	$ 5,716
TASK 4 - UWMP Update	0	20	10	10	40	30	110	$ 19,450	$ -	$ 19,450
TASK 5 - Prepare UWMP Plan	0	14	14	12	20	20	80	$ 14,572	$ 1,500	$ 16,072
TOTAL TASKS	**20**	**48**	**80**	**32**	**99**	**50**	**329**	**$ 61,523**	**$ 2,500**	**$ 64,023**

(a) Mileage and reproduction costs