



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

AGENDA
REGULAR 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.

9:00 AM

August 6, 2019

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: August 6, 2019 (Pg. 5)**

Ratify

B **Minutes: Regular Meeting of July 23, 2019 (Pg. 36)**

Approve

C **Directors' Per Diem: July 2019 (Pg. 44)**

Ratify

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

A **Legislative and Regulatory Updates**

B **Water Supply Conditions Update (Pg. 50)**

6 **TREASURER**

7 **BOARD OF DIRECTORS**

A **ACWA Committee Appointment Nominations for 2020-2021 Term (Pg. 52)**

Select candidates for ACWA committee appointment or re-appointment consideration, and authorize the General Manager to sign and return the completed Committee Consideration Form to ACWA no later than September 30, 2019.

8 **FACILITIES AND OPERATIONS**

A **Rondell Oasis Hotel: Easement Encroachment Agreement (Pg. 57)**

Authorize the General Manager to execute the Easement Encroachment Agreement with Rondell Hotel, LLC, authorizing an encroachment for construction of improvements associated with the Rondell Oasis Hotel at 26300 Rondell Road, Calabasas.

B **Liberty Canyon Emergency Fire Hydrant Repair: Ratification of Emergency Declaration (Pg. 67)**

Pass, approve and adopt proposed Resolution No. 2560, ratifying the General Manager's declaration of an emergency that requires immediate action without delay to perform sidewalk and asphalt pavement repair on Liberty Canyon Road.

RESOLUTION NO. 2560

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT FINDING THAT AN EMERGENCY WOULD NOT PERMIT A DELAY RESULTING FROM A COMPETITIVE SOLICITATION FOR SIDEWALK AND ASPHALT REPAIR RESULTING FROM A FIRE HYDRANT BREAK ALONG LIBERTY CANYON ROAD NEAR THE AGOURA ROAD INTERSECTION IN AGOURA HILLS

(Reference is hereby made to Resolution No. 2560 on file in the District's Resolution Book and by this reference the same is incorporated herein.)

9 FINANCE AND ADMINISTRATION

A Financial Analysis and Rate Study: Award (Pg. 78)

Accept the proposal from Raftelis Financial Consultants, Inc., and authorize the General Manager to execute a professional services agreement, in the amount of \$99,171, for preparation of a financial analysis and rate study.

B Financial Advisory Services: Award (Pg. 145)

Accept the proposal from Piper Jaffray, and authorize the General Manager to execute a five-year professional services agreement, in the amount of \$100,000, with one five-year renewal option for financial advisory services.

10 INFORMATION ITEMS

A GFOA Certificate of Achievement for Excellence in Financial Reporting and Award for Popular Annual Financial Report (Pg. 206)

11 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

12 FUTURE AGENDA ITEMS

13 PUBLIC COMMENTS

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Subdivision (b) of Government Code Section 54954.2

14 **CLOSED SESSION**

15 **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: August 6, 2019

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. 82579 through 82707 were issued less voids/stop payments in the total amount of \$ 1,192,885.71

Payments through wire transfers as follows:

Sub-Total Wires	\$ -
Total Payments	\$ 1,192,885.71

(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
08/06/19**

Company Name	Company No.	Check No.		Total
		82579 thru 82673 07/23/19	82674 thru 82707 07/30/19	
		Amount	Amount	
Potable Water Operations	101	25,885.52	4,513.35	30,398.87
Recycled Water Operations	102			-
Sanitation Operations	130	980.46	98.45	1,078.91
Potable Water Construction	201	5,153.72	8,022.85	13,176.57
Water Conservation Construction	203			-
Sani- Construction	230			-
Potable Water Replacement	301	11,936.75	29,215.67	41,152.42
Reclaimed Water Replace	302			-
Sanitation Replacement	330	16,931.55		16,931.55
Internal Service	701	177,462.76	57,499.54	234,962.30
JPA Operations	751	136,440.39	9,727.45	146,167.84
JPA Construction	752			-
JPA Replacement	754	657,287.03	340,937.68	998,224.71
Total Printed		1,032,078.18	450,014.99	1,482,093.17

Voided Checks/payment stopped:

Check #82571 754 (289,207.46)

Total Voids		(289,207.46)		(289,207.46)
Net Total		742,870.72	450,014.99	1,192,885.71

Batch Number - 273230
Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key	Amount	Invoice Number
82579	07/23/19	19043	A P B PROPERTIES	RFND-PPC BAL	PV	165306	001 00701	2,969.49	C2748950
				27489 AGOURA					
				INT-PPC	PV	165307	001 00701	52.88	INT-C2748950
				BAL/27489					
				AGOURA					
				Payment Amount			3,022.37		
82580	07/23/19	2317	ACORN NEWSPAPER	LGLAD-HEALTH	PV	165170	001 00701	51.00	M-0842
				GOALS					
				DISPLAY	PV	165171	001 00101	754.00	134983
				AD-WQR					
				DISPLAY AD-NO	PV	165172	001 00751	638.48	134652
				CMPST					
				Payment Amount			1,443.48		
82581	07/23/19	18661	ACTION AUTO GLASS	RPLC	PV	165254	001 00701	385.80	4-263788
				WINDSHIELD-#8					
				99					
				Payment Amount			385.80		
82582	07/23/19	8560	ADVANCED UTILITY SYSTEMS	CIS V4	PV	165215	001 00701	6,212.50	XT00141999A
				UPGRADE-5%					
				Payment Amount			6,212.50		
82583	07/23/19	3077	AIRGAS USA, LLC	JUN'19	PV	165224	001 00701	1,179.35	9963315340
				CYLINDER RENT					
				Alt Payee					
				6658 AIRGAS USA, LLC					
				P. O. BOX 7423					
				PASADENA CA 91109-7423					
				Payment Amount			1,179.35		
82584	07/23/19	14518	ALLAMERICAN ASPHALT	RFND	PV	165148	001 00101	390.97	9999412
				BAL-CLOSED					
				A/C					
				Payment Amount			390.97		
82585	07/23/19	17396	ALL STAR FENCE & CONCRETE	RPR FENCE-TWN	PV	165174	001 00101	1,200.00	4646
				LKS					
				Payment Amount			1,200.00		
82586	07/23/19	16224	ASBURY ENVIRONMENTAL SERVICES	WASTE OIL	PV	165159	001 00751	65.00	1500-00457979
				DSPL-TAPIA					
				WASTE OIL	PV	165160	001 00751	65.00	1500-00457978
				DSPL-RLV					

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Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Lim	Key Co	Amount	Invoice Number
				WASTE	PV	165161	001	00751	212.55	1500-00456551
				DISP-RAG P/U						
				Payment Amount					342.55	
82587	07/23/19	21339	ASR	RFND	PV	165152	001	00101	1,013.44	077367
			CONSTRUCTION	BAL-CLOSED						
				A/C						
				Payment Amount					1,013.44	
82588	07/23/19	5625	ASSOC. OF WATER AGENCIES OF VENTURA CO	LUNCHN-SCADA TRNG 6/26	PV	165312	001	00701	70.00	06-11891
				Payment Amount					70.00	
82589	07/23/19	20695	AT&T	SRV	PV	165244	001	00101	77.39	0051/070519
				SRV	PV	165244	002	00101	190.70	0051/070519
				SRV	PV	165244	003	00101	197.89	0051/070519
				SRV	PV	165244	004	00101	2,854.84	0051/070519
				SRV	PV	165244	005	00101	455.13	0051/070519
				SRV	PV	165244	006	00101	190.70	0051/070519
				SRV	PV	165244	007	00101	53.92	0051/070519
				SRV	PV	165244	008	00101	190.70	0051/070519
				SRV	PV	165244	009	00101	183.64	0051/070519
				SRV	PV	165244	010	00101	183.64	0051/070519
				SRV	PV	165244	011	00101	183.64	0051/070519
				SRV	PV	165244	012	00101	183.64	0051/070519
				SRV	PV	165244	013	00101	183.64	0051/070519
				SRV	PV	165244	014	00101	183.64	0051/070519
				SRV	PV	165244	015	00101	190.70	0051/070519

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Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key ltm	Key Co	Amount	Invoice Number
				7/5-8/4/19	PV	165244	016	00101	95.35	0051/070519
				SRV						
				7/5-8/4/19	PV	165244	017	00101	95.35	0051/070519
				SRV						
				7/5-8/4/19						
				Payment Amount				5,694.51		
82590	07/23/19	2869	AT&T	SRV	PV	165242	001	00101	205.98	9054/070519
				7/5-8/4/19						
				SRV						
				7/7-8/6/19	PV	165292	001	00101	200.82	2045/070719
				SRV						
				7/7-8/6/19	PV	165293	001	00101	67.07	0123/070719
				SRV						
				7/7-8/6/19	PV	165294	001	00101	405.67	2043/070719
				SRV						
				7/7-8/6/19	PV	165295	001	00101	33.03	0124/070719
				SRV						
				7/7-8/6/19						
				Payment Amount				912.57		
82591	07/23/19	20424	AT&T	RLV U VERSE	PV	165241	001	00751	55.00	5778/071019
				7/11-8/10/19						
				Payment Amount				55.00		
82592	07/23/19	9631	AT&T LONG DISTANCE	LONG DIST	PV	165317	001	00701	8.90	806368136/070419
				6/1-7/1/19						
				LONG DIST						
				6/1-7/1/19	PV	165317	002	00701	1.69	806368136/070419
				LONG DIST						
				6/1-7/1/19	PV	165317	003	00701	11.75	806368136/070419
				LONG DIST						
				6/1-7/1/19	PV	165317	004	00701	.28	806368136/070419
				LONG DIST						
				6/1-7/1/19						
				Payment Amount				22.62		
82593	07/23/19	9067	AUSTIN-MAC, INC.	ADAPTER FLANGE	PV	165262	001	00751	802.08	29636
				Payment Amount				802.08		
82594	07/23/19	7770	AUTOMATIONDIR ECT.COM	A/C CURRENT TRANSDUCER	PV	165175	001	00751	142.36	10025483
				WRRNTY REPLC-PANEL MTR						
				CR-#9863444						
				Payment Amount				142.36		
				3.03 TN A/C 3/8" FINE						
82595	07/23/19	18071	BLUE DIAMOND MATERIALS		PV	165228	001	00701	165.86	1533512

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Payment Number	Payment Date	Address Number	Name	Payment Sub Message	Document Ty	Document Number	Key Item	Key Co	Amount	Invoice Number
82596	07/23/19	18080	BOOT BARN INC.	Payment Amount	PV	165168	001	00701	199.33	IVC0186156
				SFTY					165.86	
				FWEAR-SJ						
				Payment Amount					199.33	
82597	07/23/19	21346	CABLESTAY INVESTMENTS, LLC	RFND DEP	PV	165250	001	00701	3,194.63	R2402550
				BAL@24025 HDN						
				RDG						
				INT-DEP					43.53	INT-R2402550
				BAL@24025 HDN						
				RDG						
				Payment Amount					3,238.16	
82598	07/23/19	18859	CALABASAS BLUE LLC	RFND-PPC BAL	PV	165304	001	00701	4,794.60	T6048850
				4240 LV RD						
				INT-PPC					85.39	INT-T6048850
				BAL@240 LV RD						
				RD						
				Payment Amount					4,879.99	
82599	07/23/19	2964	CA DEPARTMENT OF TAX&FEE ADMINISTRATIO N	SALES/USE TAX	PV	165322	001	00701	3,106.00	097-817885/06 3019
				QE063019						
				Payment Amount					3,106.00	
82600	07/23/19	20655	CANNON CORPORATION	P/E	PV	165274	001	00701	4,974.25	69480
				6/30-CORNELL						
				P/S UPGD						
				P/E 6/30 DSGN					5,153.72	69477
				SRV INTRCNT						
				Payment Amount					10,127.97	
82601	07/23/19	18107	CAROLLO ENGINEERING, INC	P/E 4/30-PURE	PV	165198	001	00701	20,723.25	0177451
				WTR DEMO						
				Payment Amount					20,723.25	
82602	07/23/19	2786	CEDAR VALLEY PLUMBING SUPPLY	T&S	PV	165267	001	00701	146.15	102166
				FAUCET-BLDG7						
				3/4" CXC					26.48	101818
				UNION						
				3/4"					7.23	101554
				DIELECTRIC						
				UNION						
				PIPE					171.55	101383

Las Virgenes Municipal Water
A/P Auto Payment Register

Batch Number - 273230
Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Ty	Document Number	Key	Amount	Invoice Number
Number	Date	Number				Number	Item Co		Number
FITTINGS/SOLD									
			ER						
			PIPE FITTINGS		PV	165271	001 00751	8.64	102459
			Payment Amount				360.05		
82603	07/23/19	18860	CHEMTREAT, INC.	JUL'19 WTR	PV	165223	001 00701	615.88	2815898
			TRMNT						
			Payment Amount				615.88		
82604	07/23/19	21201	CUSHMAN CONTRACTING CORPORATION	PMT#4-TWRF	PV	165199	001 00701	668,909.24	4
			PROC AIR						
			RTN #4-TWRF		PD	165200	001 00754	33,445.46	10626/RTN#4
			PROC AIR						
			Payment Amount				635,463.78		
82605	07/23/19	3238	DANGELO CO.	METER BOXES	PV	165234	001 00701	21,776.27	S1338448.003
			Payment Amount				21,776.27		
82606	07/23/19	11330	DIAL SECURITY	INSTALL CELL	PV	165225	001 00701	449.65	352807
			COMM-BD7						
			Payment Amount				449.65		
82607	07/23/19	17877	DOHENY-VIDOVI CH PARTNERS	RFND-DEP	PV	165252	001 00701	1,688.38	T4594201
			BAL@5727 LV						
			INT-DEP		PV	165253	001 00701	30.07	INT-T4594201
			BAL@5757 LV						
			Payment Amount				1,718.45		
82608	07/23/19	18111	ELECSYS INTERNATIONAL CORPORATION	JUN'19 MTR	PV	165206	001 00701	310.00	SIP-E101222
			DVC MAINT						
			Payment Amount				310.00		
82609	07/23/19	18441	EMPLOYEE RELATIONS NETWORK	BKGRND CK-1	PV	165169	001 00701	124.85	85468
			EE						
			Payment Amount				124.85		
82610	07/23/19	16628	JOYCE ESSEX	RFND	PV	165149	001 00101	51.72	2130789
			BAL-CLOSED A/C						
			Payment Amount				51.72		
82611	07/23/19	2658	FEDERAL EXPRESS CORP	PKG DLVRD 7/1	PV	165240	001 00701	15.49	6-610-70421
			Payment Amount				15.49		
82612	07/23/19	21349	RICH FELTKE	RFND	PV	165315	001 00701	15,920.00	R2631650
			DEP-26316 FAIRSIDE						

Las Virgenes Municipal Water
A/P Auto Payment Register

Batch Number - 273230
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Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document . . .		Key	Amount	Invoice Number
					Ty	Number			
				INT-DEP/26316	PV	165316	001 00701	41.07	INT-R2631650
				FAIRSIDE					
				Payment Amount			15,961.07		
82613	07/23/19	15704	GARY FIELDS	EXP-ESRI CONF	PV	165236	001 00701	2,203.68	071219
				7/7-7/12/19					
				Payment Amount			2,203.68		
82614	07/23/19	21347	MICHAEL FRIEDMANN	RFND DEP	PV	165298	001 00701	1,070.00	R0283450
				BAL-2834					
				SEQUIT					
				INT-DEP	PV	165299	001 00701	19.05	INT-R0283450
				BAL/2834					
				SEQUIT					
				Payment Amount			1,089.05		
82615	07/23/19	6770	G.I. INDUSTRIES	7/19 DISP-HQ	PV	165237	001 00701	712.04	2906965-0283-7
				& SHOP					
				6/16-6/30/19					
				TAPIA RAGS	PV	165238	001 00751	581.45	2531721-0283-7
				DISP					
				Alt Payee					
				6771 G.I. INDUSTRIES					
				P. O. BOX 541065					
				LOS ANGELES CA 90054-1065					
				Payment Amount			1,293.49		
82616	07/23/19	20970	GARDA CL WEST, INC.	7/19 ARMORED	PV	165217	001 00701	318.85	10498639
				TRNSPT SRV					
				Payment Amount			318.85		
82617	07/23/19	21340	JAN GERSTEL	RFND	PV	165153	001 00101	103.18	077256
				BAL-CLOSED					
				A/C					
				Payment Amount			103.18		
82618	07/23/19	21333	GOMEZ LANDSCAPE & TREE CARE	TREE	PV	165177	001 00101	525.00	B34279
				SRV@WARNER					
				P/S					
				Payment Amount			525.00		
82619	07/23/19	2701	GRAINGER, INC.	FLTRS-INFLNT	PV	165162	001 00751	19.14	9208544982
				PMP					
				TRASH	PV	165163	001 00751	584.07	9202979481
				CANS-RLV/TAPI					
				A					
				18V RIGHT	PV	165164	001 00701	122.07	9194589678
				ANGLE DRILL					

Batch Number - 273230
Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Item	Key Co	Amount	Invoice Number
		Alt Payee 5453	GRAINGER, INC. DEPT 805178142 PALATINE IL 60038-0001		PV	165165	001	00701	46.02	9197232128
				DOCUMENT						
				HOLDERS						
				MULTIMETER	PV	165166	001	00701	206.95	9202139540
				CUTTING OIL	PV	165233	001	00701	408.66	9217586495
82620	07/23/19	21345	GRAVENSTEIN INVESTMENTS, LLC	RFND DEP	PV	165248	001	00701	3,144.31	R2405550
				BAL-24055 HDN						
				RDG						
				INT-DEP	PV	165249	001	00701	42.85	INT-R2405550
				BAL@24055 HDN						
				RDG						
				Payment Amount					1,386.91	
82621	07/23/19	9646	GRAYBAR ELECTRIC CO.	PLC	PV	165278	001	00701	6,593.71	9310829779
				PRCSSR/PWR						
				SPLY						
				PLC	PV	165278	002	00701	42.88	9310829779
				PRCSSR/PWR						
				SPLY						
				Payment Amount					3,187.16	
82622	07/23/19	19548	GRM INFORMATION MANAGEMENT SERVICES-CA	JUL'19	PV	165219	001	00701	118.64	0383625
				RECORDS						
				STORAGE						
				Payment Amount					6,636.59	
82623	07/23/19	2891	HACH CO. - C/O PONTON INDUSTRIES	JUL'19	PV	165220	001	00701	310.92	0383626
				RECORDS						
				STORAGE						
				Payment Amount					429.56	
82624	07/23/19	5402	INMAGIC CANADA SOFTWARE	FLOW MTR	PV	165277	001	00701	5,386.50	11522867
				SENSOR						
				Payment Amount					5,386.50	
				Payment Amount					2,706.00	RQ006906

Batch Number - 273230
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Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Ty	Document Number	Key	Key	Amount	Invoice Number
Number	Date	Number				Number	Item	Co		
82625	07/23/19	20856	INTERNATIONAL PRINTING & TYPESETTING INC	Payment Amount	PV	165209	001	00701	147.83	22071
				COMPOST SIGNS					2,706.00	
82626	07/23/19	20823	INVOICE CLOUD INC.	Payment Amount	PV	165201	001	00701	5,389.50	964-2019_6
				IC TRAN					147.83	
82627	07/23/19	21341	VLADIMIR ISPEROV	Payment Amount	PV	165154	001	00101	137.33	074431
				FEES-JUN'19					5,389.50	
82628	07/23/19	21070	ANDREA KAJGANIC	Payment Amount	PV	165235	001	00701	1,689.55	071119
				EXP-ESRI CONF 7/7-7/11/19					137.33	
82629	07/23/19	2611	LA DWP	Payment Amount	PV	165266	001	00101	46.23	017698/071519
				RECTIFIER					1,689.55	
82630	07/23/19	3352	LAS VIRGENES MUNICIPAL WATER DISTRICT	Payment Amount	PV	165140	001	00701	146.89	2645/070319
				RWPS					46.23	
				5/29-6/26/19					146.89	
				BD#8/RECL					188.56	2646/070319
				5/29-6/26/19					188.56	
				BD#8/RW					256.23	2652/070319
				5/29-6/26/19					256.23	
				BD#7/RW					192.44	2655/070319
				5/29-6/26/19					192.44	
				IND HILLS					25.01	0558/070319
				5/30-6/27/19					25.01	
				MORRSN P/S					25.01	0331/070319
				5/30-6/27/19					25.01	
				WLK FLT					149.25	0907/0319
				5/30-6/27/19					149.25	
				WLK FLT					489.50	0909/070319
				5/30-6/27/19					489.50	
82631	07/23/19	21348	MICHAEL S. LI-PAZ	Payment Amount	PV	165246	001	00701	1,580.82	R2650950
				RFND DEP					1,472.89	
				BAL-26509					1,580.82	
				MLHND					1,580.82	

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Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Item	Key Co	Amount	Invoice Number
82632	07/23/19	21342	MARIPOSA LLC	INT-DEP BAL@26509 MLHND Payment Amount	PV	165247	001	00701	11.15	R2650950/JINT
				RFND	PV	165155	001	00101	160.39	073263
				BAL-CLOSED A/C						
				Payment Amount					1,591.97	
82633	07/23/19	20973	MERRIMAC ENERGY GROUP	8,681 GAL REG UNLEAD Payment Amount	PV	165226	001	00701	27,240.02	2192224
82634	07/23/19	2839	MOTION INDUSTRIES, INC.	SHEAVE & BUSHING Payment Amount	PV	165222	001	00701	83.32	CA22-645126
				AIT Payee 10317 MOTION INDUSTRIES INC. FILE 749376 LOS ANGELES CA 90074						
				Payment Amount					83.32	
82635	07/23/19	10037	MOUNTAINS RECREATION & CONSV AUTHORITY	RFND-PPC BAL 5217 LV RD	PV	165300	001	00701	5,299.38	X0521750
				INT-PPC BAL/5217 LV RD Payment Amount	PV	165301	001	00701	89.41	INT-X0521750
				O2 SENSORS	PV	165256	001	00101	230.59	4206-914995
				Payment Amount					5,388.79	
82636	07/23/19	2842	NAPAAUTO PARTS	O2 SENSORS O2 SENSORS SPARK PLUG BOOTS RADIATOR CAP-#891 V BELTS-PUMP STATIONS Payment Amount	PV	165257	001	00101	115.29	4206-915054
				Payment Amount	PV	165258	001	00101	37.27	4206-915008
				Payment Amount	PV	165259	001	00701	16.08	4206-915360
				Payment Amount	PV	165260	001	00701	51.46	4206-916546
				JUN'19 ELECT PAYSTUBS Payment Amount	PV	165216	001	00701	68.95	800211
				Payment Amount					450.69	
82637	07/23/19	20772	NATIONAL PAYMENT CORP.	JUL'19 FLORAL Payment Amount	PV	165205	001	00701	235.00	7228
82638	07/23/19	16754	NATURAL		PV					

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SURROUNDINGS										
82639	07/23/19	21134	NEW EARTH USA, LLC	MAINT Payment Amount	PV	165272	001	00701	235.00	008
				BIOSOLIDS-JUN '19					23,269.14	
82640	07/23/19	13635	O. K. RADIATOR SHOP	Payment Amount	PV	165158	001	00751	682.50	26473
				RPR RLV COGEN COOLERS					682.50	
82641	07/23/19	16372	OLIN CORPORATION - CHLORALKALI	Payment Amount	PV	165227	001	00701	3,973.07	2700216
				4,932 GAL HYPOCHLORITE						
Alt Payee 16373 OLIN CORPORATION - CHLORALKALI P.O. BOX 402766 ATLANTA GA 30384-2766										
82642	07/23/19	20728	OLIVAREZ MADRUGA LEMIEUX & O'NEILL	Payment Amount	PV	165211	001	00701	3,973.07	140/JUN'19
				LEGAL SRV-JUN'19					22,098.16	
82643	07/23/19	18946	PACIFIC ADVANCED CIVIL ENGINEERING, INC.	Payment Amount	PV	165197	001	00701	26,127.76	140/JUN'19
				P/E 6/30-TP FLOOR REHAB					1,100.00	3035
82644	07/23/19	18116	PACIFIC ENERGY CONSTRUCTION CORPORATION	Payment Amount	PV	165176	001	00751	1,100.00	5351
				ASSIST-MCC CLNG-RLV					1,995.62	
82645	07/23/19	12954	POLYDYNE INC.	Payment Amount	PV	165229	001	00701	1,995.62	1364238
				43,160 LBS CLARIFOC					51,986.22	
82646	07/23/19	4940	PRES-TECH	Payment Amount	PV	165208	001	00701	51,986.22	9798
				RPR VACUUM TRAILER					10,372.32	
									10,372.32	

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82647	07/23/19	20334	PRUDENTIAL	6/19 UNFRMS/MATS/T	PV	165178	001	00701	61.90	170920347
			OVERALL	WLS						
			SUPPLY	6/19 UNFRMS/MATS/T	PV	165178	002	00701	61.87	170920347
				WLS						
				6/19 UNFRMS/MATS/T	PV	165179	001	00701	61.90	170921883
				WLS						
				6/19 UNFRMS/MATS/T	PV	165179	002	00701	61.87	170921883
				WLS						
				6/19 UNFRMS/MATS/T	PV	165180	001	00701	61.90	170923354
				WLS						
				6/19 UNFRMS/MATS/T	PV	165180	002	00701	61.87	170923354
				WLS						
				6/19 UNFRMS/MATS/T	PV	165181	001	00701	61.90	170924860
				WLS						
				6/19 UNFRMS/MATS/T	PV	165181	002	00701	61.87	170924860
				WLS						
				6/19 UNFRMS/MATS/T	PV	165182	001	00701	9.80	170920342
				WLS						
				6/19 UNFRMS/MATS/T	PV	165182	002	00701	21.44	170920342
				WLS						
				6/19 UNFRMS/MATS/T	PV	165183	001	00701	9.80	170921878
				WLS						
				6/19 UNFRMS/MATS/T	PV	165183	002	00701	21.44	170921878
				WLS						
				6/19 UNFRMS/MATS/T	PV	165184	001	00701	9.80	170923359
				WLS						
				6/19 UNFRMS/MATS/T	PV	165184	002	00701	21.44	170923359
				WLS						

Payment Number	Date	Address Number	Name	Payment Stub Message	Ty	Document . . .	Item	Co	Key	Amount	Invoice Number
				WLS							
				6/19	PV	165185	001	00701		9.80	170924855
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165185	002	00701		21.44	170924855
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165186	001	00701		235.68	170920345
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165187	001	00701		234.98	170921881
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165188	001	00701		234.98	170923362
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165189	001	00701		234.98	170924858
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165190	001	00701		28.40	170920346
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165190	002	00701		30.83	170920346
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165191	001	00701		28.40	170921882
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165191	002	00701		30.83	170921882
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165192	001	00701		28.40	170923363
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165192	002	00701		30.83	170923363
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165193	001	00701		28.40	170924859
				UNFRMS/MATS/T							
				WLS							
				6/19	PV	165193	002	00701		30.83	170924859

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UNFRMS/MATS/T										
WLS										
82648	07/23/19	21343	RASHIEL ROKNI	Payment Amount	PV	165156	001	00101	165.94	055905
BAL-CLOSED										
A/C										
82649	07/23/19	20898	SDI PRESENCE LLC	Payment Amount	PV	165273	001	00701	3,062.50	2958
PIE 6/30-ERP										
CONSULT SRV										
All Payee 20936 SDI PRESENCE LLC										
29290 NETWORK PLACE										
CHICAGO IL 60673-1292										
82650	07/23/19	2934	SECORP INDUSTRIES	Payment Amount	PV	165157	001	00701	526.82	10064030
TEST/RPR SCBA										
BOTTLES										
All Payee 3203 SECORP INDUSTRIES										
P. O. BOX 687										
RIDGELAND MS 39158-0687										
82651	07/23/19	8645	SOUTHERN CALIFORNIA TROPHY COMPANY	Payment Amount	PV	165173	001	00701	465.86	060303-19
ANNVRSY										
GIFTS-3 EE'S										
82652	07/23/19	16271	SPOK, INC.	Payment Amount	PV	165243	001	00701	71.26	C0143084S
PAGER SRV										
7/11--8/10/19										
PAGER SRV										
7/11--8/10/19										
PAGER SRV										
7/11--8/10/19										
82653	07/23/19	21332	TIM W. STAUBS	Payment Amount	PV	165151	001	00101	239.22	800266-036146
RFND										
BAL-CLOSED										
A/C										
82654	07/23/19	3789	T & T TRUCK & CRANE SERVICE	Payment Amount	PV	165231	001	00701	860.00	0142172-IN
CRANE-RESET										
MOTOR-HQ										
82655	07/23/19	20950	TERRAVERDE ENERGY LLC	Payment Amount	PV	165195	001	00701	7,551.13	321
PIE 6/30										
PRE-DSGN ST										

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82656	07/23/19	21137	TESLA, INC.	Payment Amount RW P/S-JUN'19 SOLAR	PV	165214	001	00701	18,296.91	12252859
				Payment Amount					7,551.13	
82657	07/23/19	9505	TIRE MAN AGOURA	Payment Amount FLAT RPR/ROTATION- #921	PV	165255	001	00701	45.00	2080864
				Payment Amount					18,296.91	
82658	07/23/19	17645	TORO ENTERPRISES INC.	Payment Amount P/E 6/30 MAIN RPR-LKSHOR	PV	165196	001	00701	5,859.90	12659
				Payment Amount					45.00	
82659	07/23/19	20880	TPX COMMUNICATION S	Payment Amount SRV 7/16--8/15/19	PV	165296	001	00701	492.88	118834381-0
				Payment Amount					5,859.90	
				SRV 7/16--8/15/19	PV	165296	002	00701	200.00	118834381-0
				SRV 7/16--8/15/19	PV	165296	003	00701	182.87	118834381-0
				SRV 7/16--8/15/19	PV	165296	004	00701	166.87	118834381-0
				SRV 7/16--8/15/19	PV	165296	005	00701	200.00	118834381-0
				SRV 7/16--8/15/19	PV	165296	006	00701	1,100.40	118834381-0
				SRV 7/16--8/15/19	PV	165296	007	00701	1,102.10	118834381-0
				SRV 7/16--8/15/19	PV	165296	008	00701	1,323.52	118834381-0
				SRV 7/16--8/15/19	PV	165296	009	00701	215.70	118834381-0
				SRV 7/16--8/15/19	PV	165296	010	00701	200.00	118834381-0
				SRV 7/16--8/15/19	PV	165296	011	00701	951.00	118834381-0
				Payment Amount					6,135.34	
82660	07/23/19	21252	TYLER TECHNOLOGIES, INC.	Payment Amount SRV@ 6/24-ERP IMPLTN	PV	165218	001	00701	700.00	045-269293
				6/10--6/20-ERP IMPLTN	PV	165276	001	00701	13,169.05	045-268386

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Number	Date	Number				Number	lfm	Co		Number
82661	07/23/19	3006	UNDERGROUND SERVICE ALERT	Payment Amount	PV	165167	001	00101	478.60	620190416
				284						
				TICKETS-JUN'1						
				9						
				DIG SAFE	PV	165245	001	00101	200.76	18DSBFEE3352
				PERMIT FEE						
				Payment Amount					679.36	
82662	07/23/19	3429	UNITED PARCEL SERVICE	PKG DLVRD	PV	165265	001	00701	12.22	000025W020289
				5/20						/2019
				Payment Amount					12.22	
82663	07/23/19	20935	US METRO GROUP, INC.	JANTRL	PV	165230	001	00701	8,515.53	99380
				SRV-JUN'19						
				JANTRL	PV	165230	003	00701	2,395.60	99380
				SRV-JUN'19						
				JANTRL	PV	165230	005	00701	196.56	99380
				SRV-JUN'19						
				Payment Amount					11,107.69	
82664	07/23/19	21154	UTILIWORKS CONSULTING, LLC	PIE 6/30	PV	165207	001	00701	750.00	5606
				AMR/AMI						
				CONSLT SRV					750.00	
				Payment Amount						
82665	07/23/19	21296	VENTURA CRANE INC.	RPR 500C	PV	165232	001	00701	8,147.99	20484
				NATNL CRANE						
				Payment Amount					8,147.99	
82666	07/23/19	13326	VILLA ESPERANZA SERVICES	LANDSCAPE	PV	165297	001	00701	1,035.00	LVMWD 2019-6
				SRV-JUN'19						
				LANDSCAPE	PV	165297	002	00701	2,925.00	LVMWD 2019-6
				SRV-JUN'19						
				LANDSCAPE	PV	165297	004	00701	540.00	LVMWD 2019-6
				SRV-JUN'19						
				Payment Amount					4,500.00	
82667	07/23/19	3035	VWR SCIENTIFIC	PIPETS	PV	165263	001	00701	458.91	8086695934
				SOD						
				SULFITE/2-PRO						
				PANOL						
				Payment Amount					214.22	
				Alt Payee						
				3216						
				VWR INTERNATIONAL, INC						
				P. O. BOX 640169						
				PITTSBURGH PA 15264-0169						

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82668	07/23/19	19685	W. LITTEN INC.	SPRYFLD 7/1--7/4/19	PV	165212	001	00701	4,480.44	19037
				SPRYFLD 7/8--7/12/19	PV	165213	001	00701	4,369.30	19038
				Payment Amount					8,829.74	
82669	07/23/19	18643	WARD CORPORATION	RFND BAL-CLOSED A/C	PV	165150	001	00101	1,013.44	9999562
				Payment Amount					1,013.44	
82670	07/23/19	3048	WEST COAST AIR CONDITIONING	PM/FLTRS/BELT S-BD#8	PV	165279	001	00701	650.00	S101231
				PM/FLTRS-BD#2	PV	165280	001	00701	35.00	S101267
				PM/FLTRS-BD#7	PV	165281	001	00701	285.00	S101268
				PM/FLTRS-TAPI	PV	165282	001	00701	160.00	S101280
				A						
				PM/FLTRS-RLV	PV	165283	001	00701	385.00	S101285
				PM/FLTR-LV2	PV	165284	001	00701	155.00	S101295
				PM/FLTRS-WLK	PV	165285	001	00701	45.00	S101296
				PM/FLTR-CORNE	PV	165286	001	00701	50.00	S101297
				LL						
				PM/FLTRS-L/S#	PV	165287	001	00701	118.00	S101298
				1						
				PM/FLTRS-L/S#	PV	165288	001	00701	107.00	S101299
				2						
				RPR	PV	165289	001	00701	15.71	S101800
				PARTS-BD#8						
				Payment Amount					1,985.71	
82671	07/23/19	21095	WESTLAKE PROPERTIES, INC.	RFND-PPC BAL 31943 AGOURA	PV	165308	001	00701	125.82	C3194350
				INT-DEP BAL 31943 AGOURA	PV	165309	001	00701	1.53	INT-C3194350
				Payment Amount					127.35	
82672	07/23/19	6248	ZENNER PERFORMANCE METERS, INC.	6" METER@ 1900 RMBLA PAC	PV	165310	001	00701	3,824.81	0047382-IN
				Alt Payee						
				19000 ZENNER PERFORMANCE METER INC. 15280 ADDISON RD. #100						

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ADDISON TX 75001										
82673	07/23/19	21108	ZIP'S AW DIRECT	STROBE	PV	165314	001	00701	385.01	674139
				SYS-#913						
				Payment Amount					3,824.81	
				Payment Amount					385.01	
				Total Amount of Payments Written					1,032,078.18	
				Total Number of Payments Written					95	

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82574	07/30/19	2869	AT&T	SRV 7/14-8/13/19	PV	165388	001	00701	183.80	4639/071419
				Payment Amount					183.80	
82575	07/30/19	7770	AUTOMATIONDIR ECT.COM	TERMINAL	PV	165397	001	00751	110.08	9933906
				BLOCKS/ASSRY						
				Payment Amount					110.08	
82576	07/30/19	2425	BANK OF AMERICA	VISA CHG-FIN	PV	165323	001	00701	78.07	1670/070719
				ADM-JUN'19						
				VISA CHG-FIN	PV	165323	002	00701	540.00	1670/070719
				ADM-JUN'19						
				VISA CHG-FIN	PV	165324	001	00701	260.00	9919/070719
				ADM2-JUN'19						
				VISA CHG-FIN	PV	165324	002	00701	300.00	9919/070719
				ADM2-JUN'19						
				VISA CHG-FIN	PV	165324	003	00701	300.00	9919/070719
				ADM2-JUN'19						
				VISA	PV	165325	001	00101	51.36	7112/070719
				CHG-ALMAGUER- JUN'19						
				VISA	PV	165325	002	00101	229.06	7112/070719
				CHG-ALMAGUER- JUN'19						
				VISA	PV	165326	001	00701	4.00	7536/070719
				CHG-BAIRD-JUN '19						
				VISA	PV	165326	002	00701	19.95	7536/070719
				CHG-BAIRD-JUN '19						
				VISA	PV	165326	003	00701	36.51	7536/070719
				CHG-BAIRD-JUN '19						
				VISA	PV	165327	001	00701	71.16	8102/070719
				CHG-BOCKELMAN -JUN'19						
				VISA	PV	165327	002	00701	128.63	8102/070719
				CHG-BOCKELMAN -JUN'19						
				VISA	PV	165328	001	00701	95.79	7651/070719
				CHG-CASPARY-J UN'19						
				VISA	PV	165329	001	00751	60.48	5151/070719

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				CHG-GIL-JUN'1						
9					PV	165329	002	00751	29.97	5151/070719
				VISA CHG-GIL-JUN'1						
9					PV	165329	003	00751	238.43	5151/070719
				VISA CHG-GIL-JUN'1						
9					PV	165329	004	00751	132.71	5151/070719
				VISA CHG-GIL-JUN'1						
9					PV	165329	005	00751	468.82	5151/070719
				VISA CHG-GIL-JUN'1						
9					PV	165329	006	00751	87.66	5151/070719
				VISA CHG-GIL-JUN'1						
9					PV	165329	007	00751	241.75	5151/070719
				VISA CHG-GIL-JUN'1						
9					PV	165329	008	00751	37.81	5151/070719
				VISA CHG-GIL-JUN'1						
9					PV	165329	009	00751	510.12	5151/070719
				VISA CHG-GIL-JUN'1						
9					PV	165329	010	00751	245.42	5151/070719
				VISA CHG-GIL-JUN'1						
9					PV	165330	001	00701	75.00	6935/070719
				VISA CHG-GUZMAN-JU N'19						
9					PV	165330	002	00701	50.00	6935/070719
				VISA CHG-GUZMAN-JU N'19						
9					PV	165330	003	00701	13.41	6935/070719
				VISA CHG-GUZMAN-JU N'19						
9					PV	165330	004	00701	232.82	6935/070719
				VISA CHG-GUZMAN-JU N'19						

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Payment Number	Date	Address Number	Name	Payment Stub Message	Ty	Document Number	Key Item Co	Amount	Invoice Number
				VISA	PV	165331	001 00101	91.37	7431/07/0719
			CHG-JACKSON-J UN'19						
			VISA	CHG-JACKSON-J UN'19	PV	165331	002 00101	208.22	7431/07/0719
			VISA	CHG-JONES-JUN '19	PV	165332	001 00101	184.64	3713/07/0719
			VISA	CHG-JONES-JUN '19	PV	165332	002 00101	212.28	3713/07/0719
			VISA	CHG-JONES-JUN '19	PV	165332	003 00101	223.98	3713/07/0719
			VISA	CHG-JONES-JUN '19	PV	165332	004 00101	212.28	3713/07/0719
			VISA	CHG-JONES-JUN '19	PV	165332	005 00101	164.34	3713/07/0719
			VISA	CHG-JONES-JUN '19	PV	165332	006 00101	184.64	3713/07/0719
			VISA	CHG-KORKOSZ-J UN'19	PV	165333	001 00701	33.23	0544/07/0719
			VISA	CHG-KORKOSZ-J UN'19	PV	165333	002 00701	254.52	0544/07/0719
			VISA	CHG-LEWITT-JU N'19	PV	165334	001 00701	595.00	1175/07/0719
			VISA	CHG-LO-HILL-J UN'19	PV	165335	001 00701	595.00	4758/07/0719
			VISA	CHG-MCDERMOTT -JUN'19	PD	165336	001 00701	1,336.12	1975/07/0719
			VISA	CHG-MCDERMOTT	PD	165336	002 00701	700.00	1975/07/0719

Batch Number - 273432
Bank Account - 00146807 Cash-General

Payment Number	Date	Address Number	Name	Payment Stub Message	Document Number	Key itm Co	Amount	Invoice Number
				-JUN'19				
			VISA	PV	165338	001 00701	883.00	6009/070719
			CHG-PANIAGUA- JUN'19					
			VISA	PV	165338	002 00701	449.00	6009/070719
			CHG-PANIAGUA- JUN'19					
			VISA	PV	165338	003 00701	345.00	6009/070719
			CHG-PANIAGUA- JUN'19					
			VISA	PV	165338	004 00701	10.00	6009/070719
			CHG-PANIAGUA- JUN'19					
			VISA	PV	165338	005 00701	39.42	6009/070719
			CHG-PANIAGUA- JUN'19					
			VISA	PV	165339	001 00701	25.53	6549/070719
			CHG-MCNUUTT-JU N'19					
			VISA	PV	165339	002 00701	57.49	6549/070719
			CHG-MCNUUTT-JU N'19					
			VISA	PV	165340	001 00701	214.29	5953/070719
			CHG-MEREDITH- JUN'19					
			VISA	PV	165340	002 00701	82.52	5953/070719
			CHG-MEREDITH- JUN'19					
			VISA	PV	165340	003 00701	346.15	5953/070719
			CHG-MEREDITH- JUN'19					
			VISA	PV	165341	001 00701	84.61	1924/070719
			CHG-PEDERSEN- JUN'19					
			VISA	PV	165341	002 00701	27.95	1924/070719
			CHG-PEDERSEN- JUN'19					
			VISA	PV	165341	003 00701	35.00	1924/070719
			CHG-PEDERSEN- JUN'19					
			VISA	PV	165341	004 00701	700.00	1924/070719

Batch Number - 273432
Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Ty	Document Number	Key Item	Co	Amount	Invoice Number
				CHG-PEDERSEN- JUN'19						
				VISA	PV	165341	005	00701	10.00	1924/070719
				CHG-PEDERSEN- JUN'19						
				VISA	PV	165341	006	00701	28.93	1924/070719
				CHG-PEDERSEN- JUN'19						
				VISA	PV	165341	007	00701	236.67	1924/070719
				CHG-PEDERSEN- JUN'19						
				VISA	PV	165342	001	00701	700.00	5664/070719
				CHG-POLAN-JUN '19						
				VISA	PV	165342	002	00701	75.00	5664/070719
				CHG-POLAN-JUN '19						
				VISA	PV	165342	003	00701	595.00	5664/070719
				CHG-POLAN-JUN '19						
				VISA	PV	165343	001	00701	100.00	8400/070719
				CHG-ROBERTS-J UN'19						
				VISA	PV	165344	001	00701	1,122.07	0615/070719
				CHG-TRIPLETT- JUN'19						
				VISA	PV	165344	002	00701	591.15	0615/070719
				CHG-TRIPLETT- JUN'19						
				VISA	PV	165344	003	00701	81.96	0615/070719
				CHG-TRIPLETT- JUN'19						
				VISA	PV	165344	004	00701	952.85	0615/070719
				CHG-TRIPLETT- JUN'19						
				VISA	PV	165344	005	00701	182.87	0615/070719
				CHG-TRIPLETT- JUN'19						
				VISA	PV	165344	006	00701	89.31	0615/070719
				CHG-TRIPLETT- JUN'19						

Batch Number - 273432
Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Lim	Key Co	Amount	Invoice Number
				VISA	PV	165344	007	00701	119.91	0615/070719
				CHG-TRIPLETT- JUN'19						
				VISA	PV	165344	008	00701	21.86	0615/070719
				CHG-TRIPLETT- JUN'19						
				VISA	PV	165345	001	00751	55.03	8913/070719
				CHG-ROBINS-JU N'19						
				VISA	PV	165345	002	00751	675.00	8913/070719
				CHG-ROBINS-JU N'19						
				VISA	PV	165346	001	00751	498.12	6703/070719
				CHG-VARBEL-JU N'19						
				VISA	PV	165346	002	00751	11.55	6703/070719
				CHG-VARBEL-JU N'19						
				VISA	PV	165347	001	00701	378.12	0751/070719
				CHG-VOLLMAR-J UN'19						
				VISA	PV	165347	002	00701	789.05	0751/070719
				CHG-VOLLMAR-J UN'19						
				VISA	PV	165347	003	00701	47.85	0751/070719
				CHG-VOLLMAR-J UN'19						
				VISA	PV	165347	004	00701	376.69	0751/070719
				CHG-VOLLMAR-J UN'19						
				VISA	PV	165347	005	00701	820.83	0751/070719
				CHG-VOLLMAR-J UN'19						
				VISA	PV	165347	006	00701	25.73	0751/070719
				CHG-VOLLMAR-J UN'19						
				VISA	PV	165347	007	00701	13.49	0751/070719
				CHG-VOLLMAR-J UN'19						
				VISA	PV	165348	001	00701	1,348.23	8239/070719
				CHG-WINK-JUN'						

Batch Number - 273432
Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Item	Key Co	Amount	Invoice Number
19					PV	165349	001	00701	534.93	6218/070719
				VISA CHG-ZHAO-JUN'						
19					PV	165349	002	00701	999.00	6218/070719
				VISA CHG-ZHAO-JUN'						
19					PV	165349	003	00701	499.00	6218/070719
				VISA CHG-ZHAO-JUN'						
19					PV	165350	001	00701	1,499.00	6347/070719
				VISA CHG-PATTERSON						
				-JUN'19						
19					PV	165350	002	00701	74.95	6347/070719
				VISA CHG-PATTERSON						
				-JUN'19						
82677	07/30/19	18739	CALIFORNIA HAZARDOUS SERVICES, INC.	Payment Amount JUL'19 SITE VISIT	PV	165381	001	00701	105.00	64575
								23,716.42		
82678	07/30/19	20655	CANNON CORPORATION	Payment Amount P/E 5/31-CORD /SDDL REHAB	PV	165377	001	00701	292.50	69185
								105.00		
82679	07/30/19	19270	COMMUNICATION S RELAY, LLC	Payment Amount AUG'19 SITE RENT SCADA	PV	165387	001	00101	983.74	57745
								585.00		
82680	07/30/19	17343	CONEJO/LAS VIRGENES FUTURE FOUNDATION	Payment Amount SPONSORSHIP FY19-20	PV	165383	001	00701	2,500.00	SPNSRSHIP/19-20
								983.74		0
82681	07/30/19	15755	CORE & MAIN LP	Payment Amount FLNGS/ACC PAC/CONCRETE	PV	165361	001	00701	3,313.45	K785510
								2,500.00		

All Payee 15948 CORE & MAIN LP
P. O. BOX 28330
ST. LOUIS MO 63146

Batch Number - 273432

Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Sub Message	Document Ty	Document Number	Key Item	Key Co	Amount	Invoice Number
82662	07/30/19	16364	D&H WATER SYSTEMS INC.	PAYMENT AMOUNT	PV	165394	001	00751	3,313.45	12019-0772
				BALL BEARINGS					191.38	
82663	07/30/19	8923	ENVIRONMENTAL EXPRESS, INC.	PAYMENT AMOUNT	PV	165395	001	00701	546.72	1000561093
				SPE STANDARDS						
82664	07/30/19	2654	FAMCON PIPE	PAYMENT AMOUNT	PV	165362	001	00701	7,009.92	S100004132.00
				BALL						
				VLV/S/ANGL						
				STPS/ADPTRS						
82665	07/30/19	2660	FISHER SCIENTIFIC	PAYMENT AMOUNT	PV	165393	001	00701	361.41	9631293
				BUFFERS						
				FILE #50129						
				LOS ANGELES CA 90074-0129						
82666	07/30/19	6770	G.I. INDUSTRIES	PAYMENT AMOUNT	PV	165379	001	00701	878.80	2531678-0283-
				7/19 DISP						9
				TAPIA GRIT						
				7/19 DISP						
				TAPIA						
				7/1-7/15/19						
				SHOP BLDG						
82667	07/30/19	21324	GLOBAL VISIONS & ASSOCIATES, INC.	PAYMENT AMOUNT	PV	165373	001	00701	23,850.00	555
				DEMO PRJT						
				VIDEO						
82668	07/30/19	21367	TIMOTHY R. HEINTZ	PAYMENT AMOUNT	PV	165405	001	00701	1,874.87	R3155350
				RFND-PPC BAL						
				31553 LOBO						
				CYN						
				INT-PPC BAL						
				31553 LOBO						
				CYN						
82669	07/30/19	2997	J G TUCKER &	PAYMENT AMOUNT	PV	165398	001	00751	270.92	11359
				LEL SENSORS						

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Payment Number	Payment Date	Address Number	Name	Payment Sub Message	Doc. Ty	Document Number	Key Item	Co	Amount	Invoice Number
82690	07/30/19	5230	KENNEDYJENKS CONSULTANTS	Payment Amount P/E 6/28-TWN	PV	165375	001	00701	270.92 8,022.85	131165
82691	07/30/19	2611	LA DWP	Payment Amount RECTIFIER	PV	165386	001	00101	41.35	503850/071619
82692	07/30/19	3352	LAS VIRGENES MUNICIPAL WATER DISTRICT	Payment Amount RLV FARM	PV	165389	001	00751	41.35 151.96	2080/071719
82693	07/30/19	2789	LIEBERT CASSIDY WHITMORE	Payment Amount P/E 6/30/19	PV	165378	001	00701	298.28 69.00	1481707
82694	07/30/19	2814	MCMMASTER-CARR SUPPLY CO	Payment Amount PARTS- LAKE	PV	165396	001	00101	227.49	99601653
82695	07/30/19	20858	LOU MELLIMAN	Payment Amount RFND-PPC BAL	PV	165403	001	00701	227.49 1,064.25	R2863550
82696	07/30/19	21264	MICHAEL BAKER INTERNATIONAL	Payment Amount P/E 6/30	PV	165376	001	00701	1,081.19 28,923.17	172287

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Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Number	Key itm	Co	Amount	Invoice Number
82697	07/30/19	2302	OFFICE DEPOT , INC.	Payment Amount CR-#32854582 001	PD	165351	001	00701	136.10- 28,923.17	336374641001
				PENS	PV	165352	001	00701	16.55	324894869001
				PAPER/FOLDERS /MISC SPPLY	PV	165353	001	00701	816.55	324896692001
				MOUSE/MSG BOOK	PV	165354	001	00701	77.32	327389273001
				STAPLER/TAPE DISPSNR	PV	165355	001	00701	139.32	332854582001
				MISC DESK SUPPLIES	PV	165356	001	00701	219.08	335326450001
				MONITOR RISER FOOT REST	PV	165357	001	00701	37.21	335328847001
				PAPER WALL SIGN-R	PV	165358	001	00701	45.27	335328848001
				CLARK	PV	165359	001	00701	362.60	336371318001
				Payment Amount		165360	001	00701	26.26	335328849001
82698	07/30/19	8635	ERIK RABAJA	Payment Amount MLG-NTRNT TRAINING 7/18	PV	165402	001	00701	1,604.06 47.32	071819
82699	07/30/19	20648	STANTEC CONSULTING SERVICES INC.	Payment Amount PIE 6/28-WASTE ALLOC COMP	PV	165374	001	00701	27,587.72	1531932
82700	07/30/19	17168	SULZER PUMPS SOLUTIONS INC.	Payment Amount BLOWER-DOWN PMT	PV	165106	001	00701	27,587.72 76,832.00	90907059
				TAX-TRNSFRMR STEP DOWN	PV	165107	001	00701	1,120.31	90910408
				TRNSFRMR STEP DOWN	PV	165108	001	00701	116,198.47	90910409
				TAX-CNTRL SYS/PARTS	PV	165123	001	00701	907.58	90908127
				CONTROL SYS/PARTS	PV	165124	001	00701	94,149.10	90908128
82701	07/30/19	19135	TRANSUNION RISK & ALTERNATIVE	Payment Amount BAD DEBT SRCH-JUN'19	PV	165385	001	00701	289,207.46 123.00	974571/JUN'19

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Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Document Ty	Document Number	Key Irm	Key Co	Amount	Invoice Number
DATA SOLUT										
82702	07/30/19	18604	VENTURA PEST CONTROL	Payment Amount PEST CNTRL SRV-JUL'19	PV	165382	001	00701	123.00 100.00	682109
				PEST CNTRL SRV-JUL'19	PV	165382	003	00701	340.00	682109
				PEST CNTRL SRV-JUL'19	PV	165382	008	00701	135.00	682109
82703	07/30/19	2436	VINCE BARNES AUTOMOTIVE	Payment Amount OIL/FLTRS-#89	PV	165365	001	00701	575.00 122.10	023994
				RPLC HEADLIGHT-#89	PV	165366	001	00701	133.00	023998
				HEADLIGHT/OIL /FLTRS-#891	PV	165367	001	00701	230.62	024005
				OIL/FLTRS-#91	PV	165368	001	00701	97.62	024021
				OIL/FLTRS-#89	PV	165369	001	00701	92.96	024026
82704	07/30/19	4707	WATER RESEARCH FOUNDATION	Payment Amount MEMBERSHIP AUG'19~JUL'20	PV	165384	001	00701	676.30 16,445.19	0004004-2019-1
82705	07/30/19	18914	WECK LABORATORIES, INC.	Payment Amount TAPIA INFLNT-9F1107	PV	165318	001	00701	16,445.19 33.95	W9F1664-LV
				TAPIA GRNDWTR-9F110	PV	165319	001	00701	7.43	W9F1665-LV
				RLV GRNDWTR-9F110	PV	165320	001	00701	44.58	W9F1666-LV
				DIONIZED WTR -9F25044	PV	165321	001	00701	26.52	W9F2071-LV
				WLK-9F25045	PV	165370	001	00701	41.38	W9G0014-LV
				LA RIVER-9E23081	PV	165371	001	00701	1,984.92	W9G0034-LV
				EFFLNT-9E2308	PV	165372	001	00701	3,047.41	W9G0035-LV

Batch Number - 273432
Bank Account - 00146807 Cash-General

Payment Number	Payment Date	Address Number	Name	Payment Stub Message	Ty	Document Number	Key	itm	Co	Amount	Invoice Number
82706	07/30/19	21365	JANE WILLARD	RFND-PPC BAL	PV	165409	001	00701		1,200.00	R2353850
				23538 BROOKS							
				INT-PPC BAL	PV	165410	001	00701		19.22	INT-R2353850
				23538 BROOKS							
				Payment Amount						5,186.19	
82707	07/30/19	21366	GIL ZAHZVI	RFND-PPC BAL	PV	165407	001	00701		363.31	R0602150
				6021 COLODNY							
				INT-PPC BAL	PV	165408	001	00701		6.55	INT-R0602150
				6021 COLODNY							
				Payment Amount						1,219.22	
				Total Amount of Payments Written						450,014.99	
				Total Number of Payments Written						34	



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

MINUTES
REGULAR MEETING

9:00 AM

July 23, 2019

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance to the Flag was led by Ana Schwab.

1. CALL TO ORDER AND ROLL CALL

The meeting was called to order at **9:00 a.m.** by Board President Lewitt in the Board Room at Las Virgenes Municipal Water District headquarters at 4232 Las Virgenes Road, Calabasas, CA 91302. Josie Guzman, Clerk of the Board, conducted the roll call.

Present: Directors Charles Caspary, Jay Lewitt, Lynda Lo-Hill, Len Polan, and Lee Renger.

Absent: None

Staff Present: David Pedersen, General Manager
Joe McDermott, Director of Resource Conservation and Public Outreach
Don Patterson, Director of Finance and Administration
John Zhao, Interim Director of Facilities and Operations
Josie Guzman, Clerk of the Board
Keith Lemieux, District Counsel

2. APPROVAL OF AGENDA

Director Caspary moved to approve the agenda. Motion seconded by Director Renger. Motion carried unanimously.

3. PUBLIC COMMENTS

None.

4. CONSENT CALENDAR

Director Polan requested that Items 4B and 4C be pulled for discussion.

A List of Demands: July 23, 2019: Ratify

D Business H2O Water Innovation Summit: Board Member Attendance

Authorize Board Member attendance and per diem compensation for the Business H2O Water Innovation Summit on September 12, 2019, in Snowbird, Utah.

Director Polan moved to approve Consent Calendar Items 4A and 4D. Motion seconded by Director Lo-Hill. Motion carried unanimously.

4. CONSENT CALENDAR – SEPARATE ACTION ITEMS

B Minutes: Regular Meeting of July 9, 2019: Approve

Director Polan moved to approve Item 4B. Motion seconded by Director Caspary.

Director Polan referred to the Minutes, Item 6, Treasurer’s Report, where it referenced that bees were removed and relocated from meter boxes in accordance with the District’s Policy, and he inquired whether the District had such a written policy. General Manager David Pedersen confirmed that the District has a written policy related to the removal and relocation of bees from District facilities.

Motion carried unanimously.

C Monthly Cash and Investment Report: June 2019

Receive and file the Monthly Cash and Investment Report for June 2019.

Director Polan moved to approve Item 4C. Motion seconded by Director Caspary.

Director Polan inquired regarding the safety of the District’s investments in governmental bond issues. Don Patterson, Director of Finance and Administration, responded that the District’s investment in United States Agency bonds are backed by the United States Government and these types of investments are the safest to the District. He reviewed the composition of the District’s portfolio to ensure proper diversification of the District’s investments.

Motion carried unanimously.

5. ILLUSTRATIVE AND/OR VERBAL PRESENTATION AGENDA ITEMS

A MWD Representative Report

MWD Representative Glen Peterson reported that the MWD Board met on July 9th, where actions included approving the naming of the Lake Mathews Multiple Species Reserve in honor of former MWD Board Chairwoman Lois B. Krieger; authorized amendments to the Administrative Code regarding deliveries of member agency water supplies in the MWD system in an emergency; and authorized payment for participation in the State Water Contractors Association. He also reported that the MWD Board met in Closed Session regarding security awareness training, and the Legal and Claims Committee reviewed the settlement proposal regarding San Diego County Water Authority v. MWD. He also reported that the MWD Board presented him with an award in recognition of his participation in the Colorado River Drought Contingency Plan. He noted that the MWD Board would hold a workshop regarding transmittal of the White Paper on Implementation and Delivery of the Regional Recycled Water Program. He also noted that he asked the Special Committee on Bay-Delta for a future agenda item regarding subsidence.

Director Caspary inquired regarding designating aquifer recharge as a beneficial use. Mr. Peterson responded that there were conflicting laws in California relating to water storage and recovery, and that in his opinion it was important to recognize aquifer recharge as a beneficial use. He noted that Arizona stores upwards of four to five million gallons of water and has no way to recover the water.

Director Lo-Hill inquired regarding the reason that water storage is not recoverable in Arizona. Mr. Peterson responded that in the past California received the surplus water not being used by Arizona, and subsequently Arizona began a program to store water in its groundwater basins with no plans to retrieve it. He noted that part of the Drought Contingency Plan includes a plan to retrieve this water.

B Review Proposal for LV Tap Campaign

Mike McNutt, Public Affairs and Communications Manager, provided a PowerPoint presentation regarding a proposal for the LV Tap campaign, promoting residents to “Drink from the Sink.”

Director Polan expressed concern with the slogan “Drink from the Sink.” He inquired regarding microplastics at MWD’s F.E. Weymouth Treatment Plant. General Manager David Pedersen responded that he was unable to reach a representative from MWD; however, the California State Water Resources Control Board is working on regulations related to microplastics. He noted that SB 1422 (Portantino), the California Safe Drinking Water Act: Microplastics, was approved in September 2018 and would require the State Water Board to adopt a definition of microplastics in drinking water by July 1, 2020, as well as adopt a standard methodology to be used in testing drinking water for microplastics, quantitative guidelines, and certification process in laboratories by July 1, 2021. He stated that microplastics, and other items found in nature, would lead to new and updated drinking water standards.

A discussion ensued regarding support for the slogan “Drink from the Sink” and promoting the LV Tap campaign.

C Legislative and Regulatory Updates

Syrus Devers, lobbyist representing Best Best & Krieger, presented the State Legislative Report, which included updates to AB 402 (Quirk), Funding Stabilization Program; SB 1 (Atkins), the California Environmental Public Health and Workers Defense Act; and SB 200 (Monning), establishing the Safe and Affordable Drinking Water Fund in the State Treasury.

Ana Schwab, lobbyist representing Best Best & Krieger, presented the Federal Legislative Report, which included updates to the Federal budget and appropriations, potential legislation related to per- and polyfluoroalkyl substances (PFAS), H.R. 1764 that would extend the NPDES permit period from five years to ten years, and an amendment to H.R. 1764 that would allow agencies that have received Title XVI funds to be eligible to apply for the U.S. EPA Alternative Water Source Program.

D Water Supply Conditions Update

Joe McDermott, Director of Resource Conservation and Public Outreach, presented the report. He noted that he attended the MWD Managers' Meeting last week, where they were informed that the State Water Project allocation was increased to 75 percent. He also noted that the State and MWD are maximizing reservoir storage, and MWD is instituting a Cyclic Storage Cost Offset Program to deliver larger than typical quantities of water to local surface or groundwater storage.

6. TREASURER

Director Lo-Hill stated that the Treasurer's Report for the July 9th and July 23rd Board meetings were in order.

7. BOARD OF DIRECTORS

A CASA Annual Business Meeting: Board of Directors Election and Dues Resolution

Designate and authorize a Board Member to cast the District's vote in favor of the four-member slate of directors and approval of the dues resolution for Fiscal Year 2020 for the California Association of Sanitation Agencies.

General Manager David Pedersen presented the report.

Director Caspary moved to designate and authorize Board President Jay Lewitt to cast the vote in favor of the four-member slate of directors and approval of the dues resolution for Fiscal Year 2020 for the California Association of Sanitation Agencies. Motion seconded by Director Renger. Motion carried unanimously.

8. FINANCE AND ADMINISTRATION

A Policy for Handling Insufficient and Excess Deposits

Pass, approve and adopt proposed Resolution No. 2559, relating to insufficient and excess deposits.

RESOLUTION NO. 2559

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT AMENDING RESOLUTION NO. 2468 (ADMINISTRATIVE CODE) AS IT RELATES TO INSUFFICIENT AND EXCESS DEPOSITS

(Reference is hereby made to Resolution No. 2559 on file in the District’s Resolution Book and by this reference the same is incorporated herein.)

Don Patterson, Director of Finance and Administration, presented the report.

Director Lo-Hill moved to approve Item 8A. Motion seconded by Director Caspary. Motion carried unanimously.

B Claim by Daniel G. Snyder

Deny the claim by Daniel G. Snyder.

General Manager David Pedersen presented the report.

Darrell Johnson, Customer Service Manager, reviewed the billing cycle and the steps taken to discontinue water service in accordance with the District’s policy.

Director Renger moved to deny the claim by Daniel G. Snyder. Motion seconded by Director Caspary.

Director Lo-Hill stated for the record that the Board has the responsibility to spend the ratepayers’ money diligently, there is a cost to the District when customers pay their bills late, under certain circumstances a first notice should be taken into consideration and on a case-by-case basis, and in this case there were three notices issued in six months. She also stated that it was not fair to ask the ratepayers to subsidize customers’ late fees.

Motion carried by the following vote:

AYES: Caspary, Lewitt, Lo-Hill, Renger

NOES: None

ABSTAIN: Polan

ABSENT: None

9. RESOURCE CONSERVATION AND PUBLIC OUTREACH

A Automatic Meter Reading/Advanced Metering Infrastructure (AMR/AMI) Project: Request for Proposals

Authorize the General Manager to issue a request for proposals for the Automatic Meter Reading/Advanced Metering Infrastructure Project.

Joe McDermott, Director of Resource Conservation and Public Outreach, presented the report.

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

Mr. McDermott responded to several questions posed by the Board regarding the number of AMR/AMI meter manufacturers, AWWA meter standards, and salvaging and recycling the old meters.

Director Caspary suggested that the RFP include an option to replace and/or retrofit the existing meters due to emerging technology.

A discussion ensued regarding financing options and the approach for deploying and installing the new meters.

Motion carried unanimously.

10. INFORMATION ITEMS

A Quarterly Employee Safety Report

General Manager David Pedersen presented the report.

11. NON-ACTION ITEMS

A Organization Reports

Director Caspary reported that he attended the Association of California Water Agencies (ACWA) State Legislative Committee Meeting on July 12th, where they discussed proposed legislation for per- and polyfluoroalkyl substances. He noted that there were over 5,000 PFAS; however, only 15 of the compounds have been studied for notification levels. He also noted that ACWA requested a copy of the study; however, they have not been able to obtain a copy and are considering filing a public records request. He also reported that he received an alert from ACWA recommending that districts contact their legislators during the August recess regarding the voluntary settlement agreements and solutions for species protection and water supply reliability. He also reported that he attended the Santa Monica Bay Restoration Commission Executive Committee meeting on July 18th, where they discussed the Governing Board's agenda and the Annual Work Plan. He also reported that he attended the Santa Monica Bay Restoration Authority Governing Board meeting where they received project updates and discussed the possibility of additional funding and projects.

B Director's Reports on Outside Meetings

Director Lo-Hill reported that she attended the California Special Districts Association Leadership Academy for Board Members.

C General Manager Reports

(1) General Business

General Manager David Pedersen noted that the first round of interviews for the position of Director of Facilities and Operations would occur on July 25th, and a second round of interviews would occur at a later date. He reported that staff is proposing that the District join the Coalition for Fire Protection Accountability. He noted that Governor Gavin Newsom commissioned a panel study to look at catastrophic loss from wildfires and liability issues.

(2) Follow-Up Items

General Manager David Pedersen noted that an item would be brought forth at the August 20th Board meeting for a discussion regarding earthquakes and safety, the Las Virgenes Reservoir Dam and the potential use of accelerometers.

D Directors' Comments

Director Polan expressed an interest in the use of milkweed plants in the District's general landscaping to attract Monarch butterflies, as well as pursuing a variety of California native plants to support fauna.

12. FUTURE AGENDA ITEMS

Director Polan moved to have a future agenda item for the Board to discuss a policy to promote native plants fostering fauna at District properties. Motion seconded by Director Lo-Hill.

13. PUBLIC COMMENTS

None.

14. CLOSED SESSION

None.

15. OPEN SESSION AND ADJOURNMENT

Seeing no further business to come before the Board, the meeting was duly adjourned at 11:31 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)

July 31, 2019

To: Payroll

From: David W. Pedersen
General Manager

RE: Per Diem Request – July 2019

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.

	<u>Director</u>	<u>No. of Meetings</u>	<u>Rate</u>	<u>Total</u>
8014	Charles Caspary	5	\$220.00	\$1,100.00
19447	Jay Lewitt	4	\$220.00	\$880.00
21169	Lynda Lo-Hill	6	\$220.00	\$1,320.00
18856	Leonard Polan	4	\$220.00	\$880.00
14702	Lee Renger	3	\$220.00	\$660.00

*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: July 2019

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	
7/1/2019	1		1 N	X		LV - TSD SPECIAL BOARD MTG.
7/9/2019	1		1 N	X		LVMWD-REGULAR BOARD MEETING
7/23/2019	1		1 N	X		LVMWD - REGULAR BOARD MEETING
7/12/2019	1		1 Y	X		ACWA - STATE LEGISLATIVE COMMITTEE MTG. SACRAMENTO
7/18/2019	1		1 N	X		SMBRC - EXECUTIVE COMMITTEE MTG - LOS ANGELES
TOTAL			5			

Date Submitted: July 26, 2019

Director Signature: CHARLES CASPARY (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: July 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	
7.1.19	1				x	JPA Board Meeting
7.9.19	1				x	LVMWD Board Meeting
7.22.19	1				x	LV Met tour and meeting
7.23.19	1				x	LVMWD Board Meeting
TOTAL				4		

Date Submitted: 7.29.19
 Director Signature: JL

46 **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: 7/1/2019-7/31/2019

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	
7/1/19	1		1		X	JPA Board Meeting
7/7/19-7/10/19	4		4		X	Special Districts Boardmember Training
²³ 7/22/19	1		1		X	LVMWD Board Meeting
TOTAL			6			

Date Submitted: 30-Jul-19

Director's 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 Name: Leonard Polan
 Month of: Apr-19 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	
7/1/19	1	----	1	----	Y	JPA Mtg
7/9/19	1	----	1	----	Y	LVMWD Board Mtg
7/11/19	1	----	1	----	Y	ACWA Region8 Telephonic meeting
7/23/19	1	----	1	----	Y	LVMWD Board Mtg
TOTAL			4			

Date Submitted: 7/31/19 Date Submitted: 7/31/19
 Director Signature: Leonard E. Polan Director Signature: Leonard E. Polan

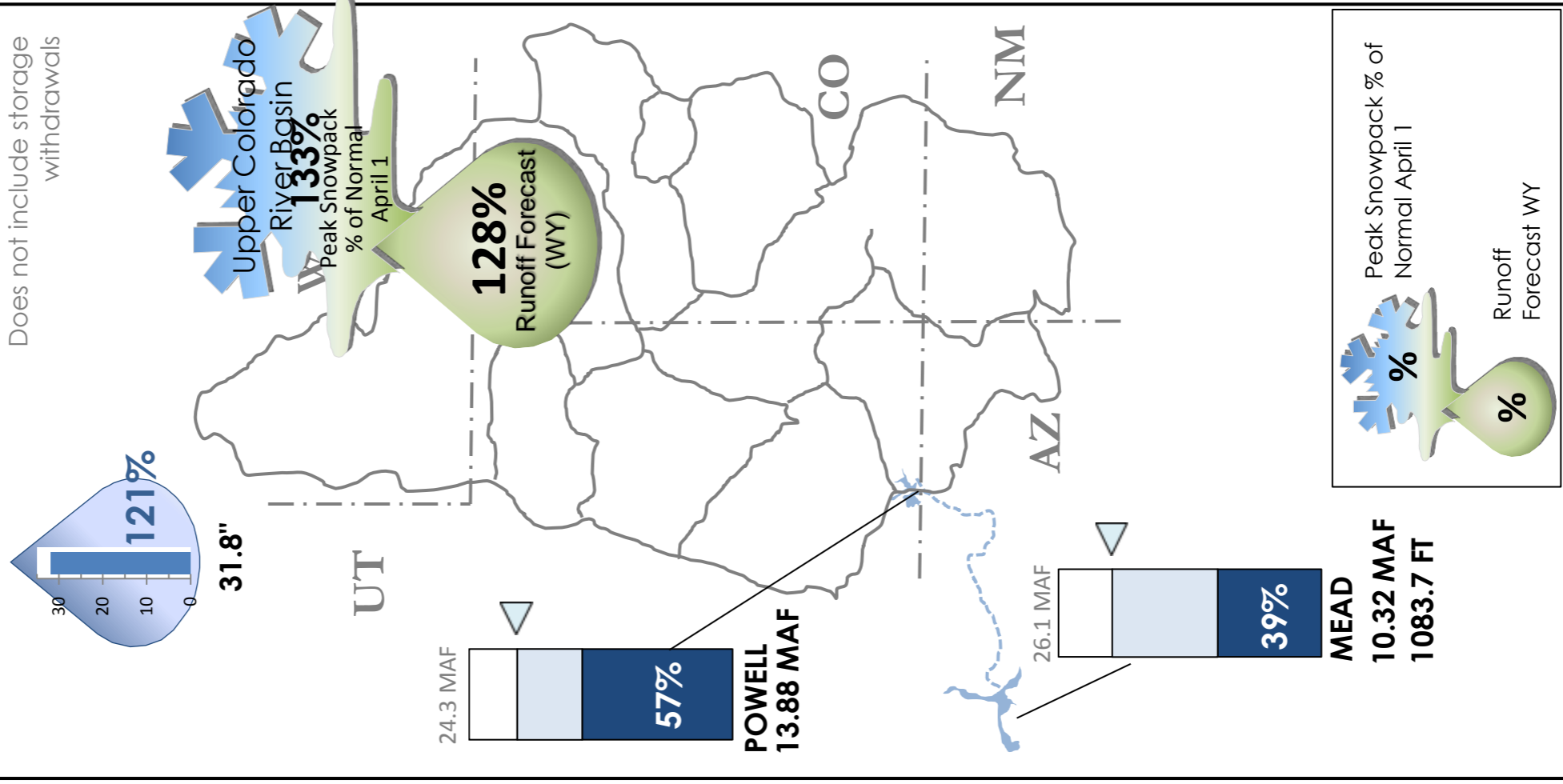
NOTES: 1. Travel the day before and/or after an authorized meeting or seminar outside of LA, Ventura and Orange Counties may be paid in accordance with Board Policy. 2. Attach completed Statement of Account and Claim for Personally Incurred Expenses form.

Water Supply Conditions Report

As of: 07/22/2019

2019 Colorado River

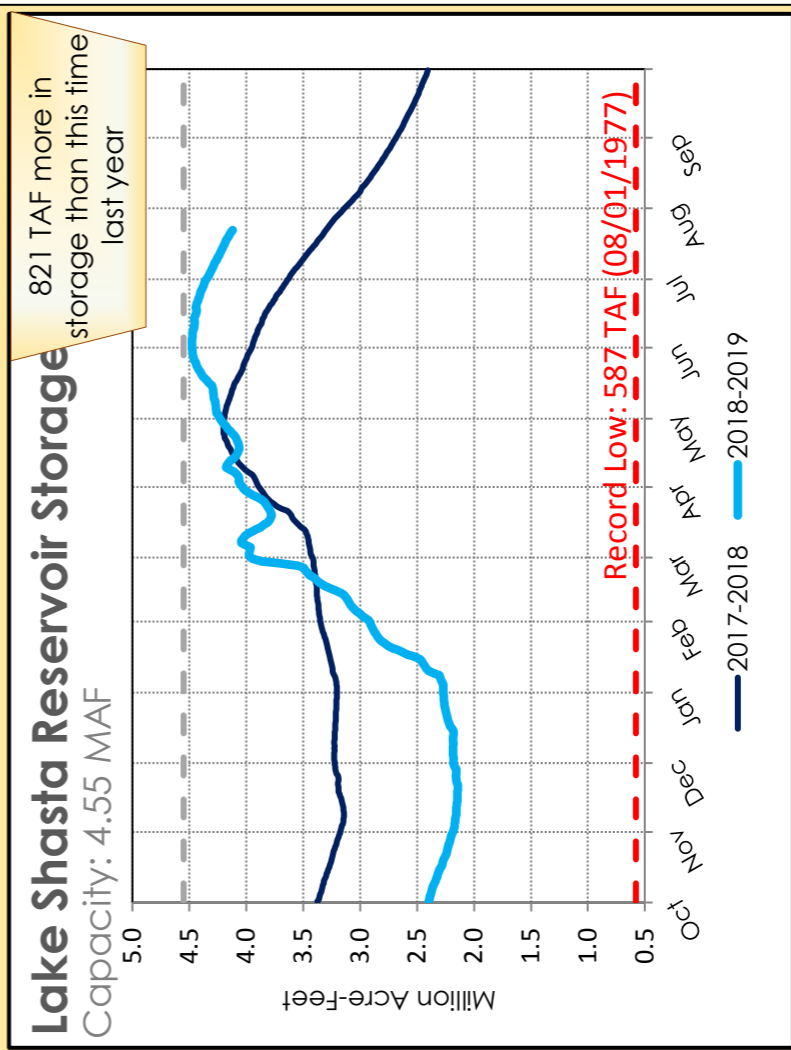
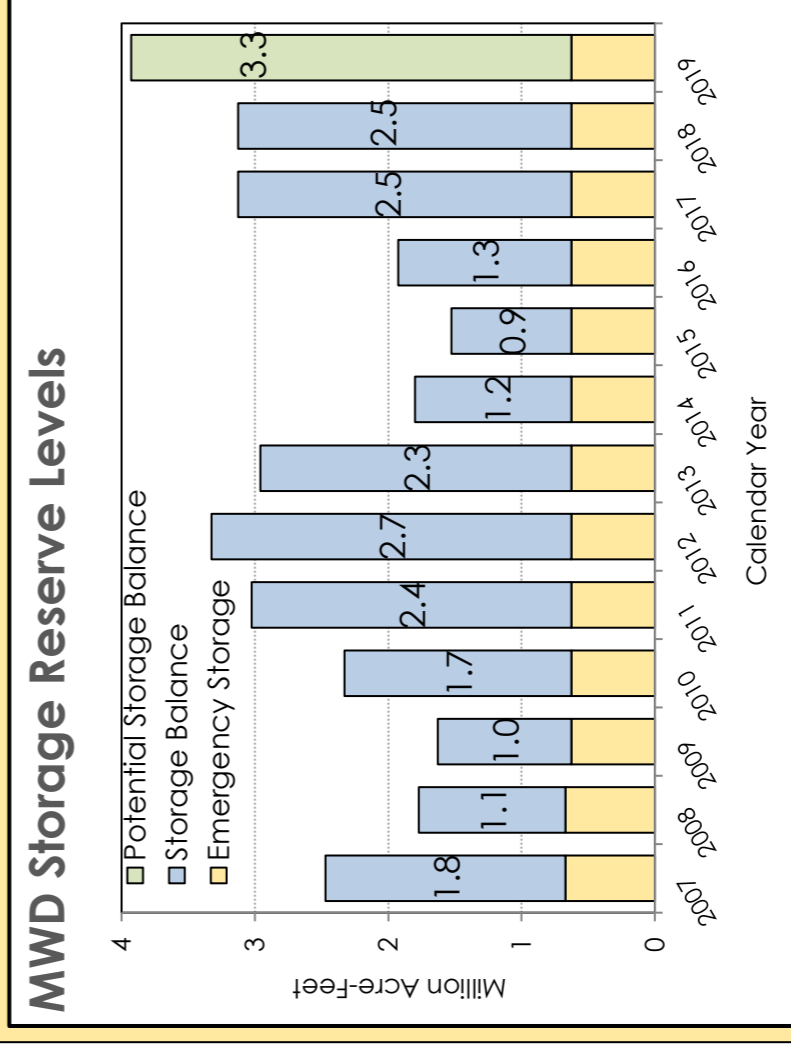
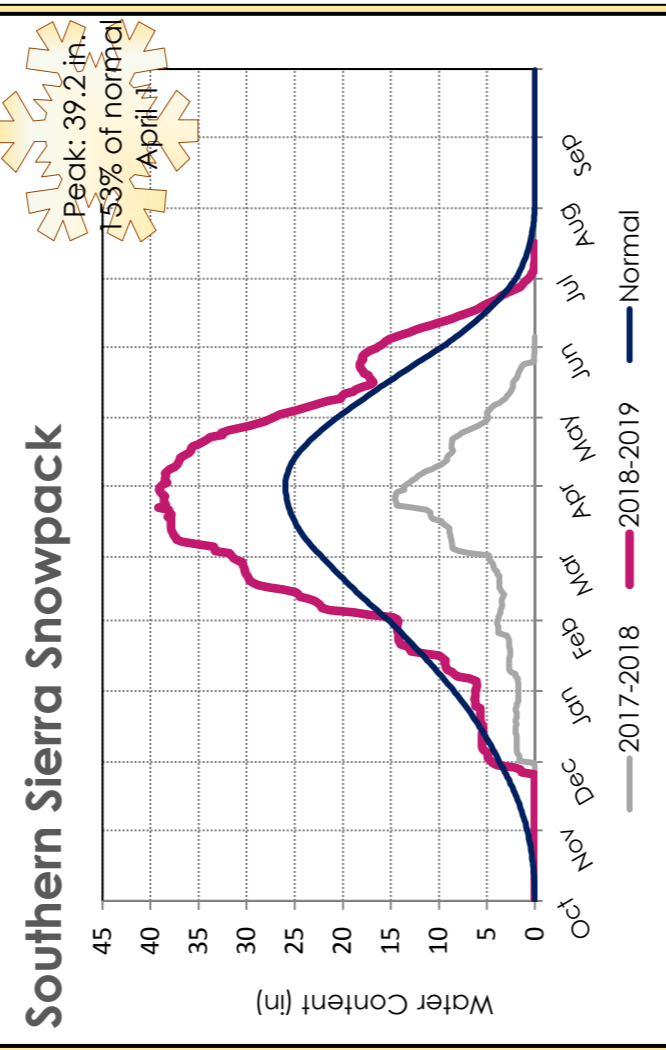
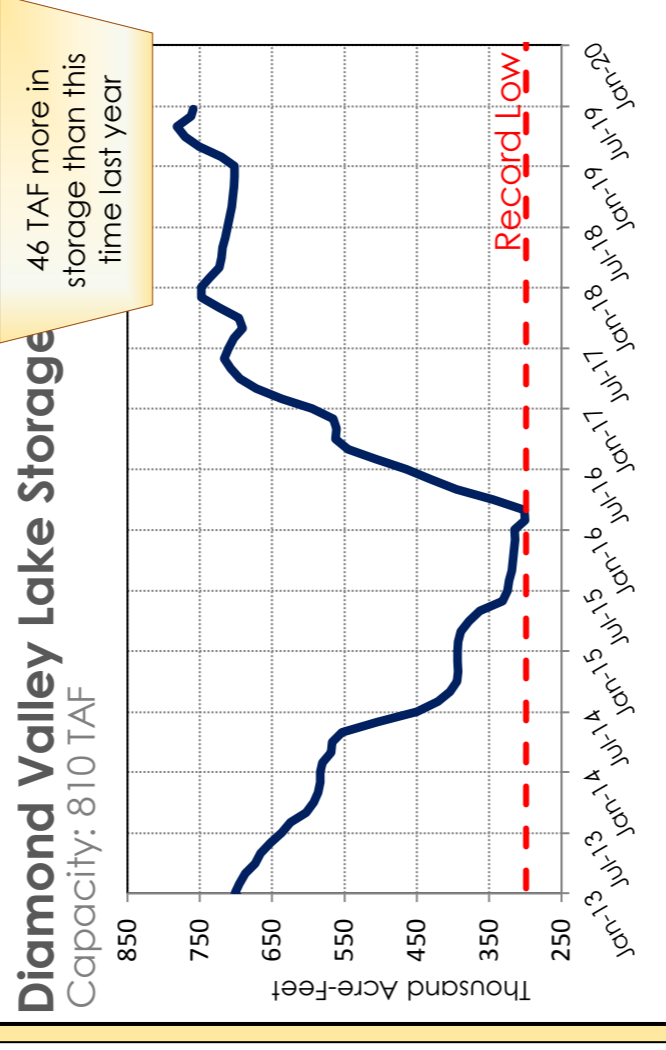
959,745 AF
77% of full CRA
Does not include storage withdrawals



Turn page for more CRA Data Flip Over for SWP

Highlights

- Northern Sierra snowpack peaked at 163% of April 1 normal
- Sacramento River Runoff forecast is 137% of normal
- Snowpack in the Upper Colorado River Basin peaked at 133% of April 1 normal
- Lake Powell inflow forecast is at 128% of normal



This report is produced by the Water Resource Management and contains information from various federal, state, and local agencies. The Metropolitan Water District of Southern California cannot guarantee the accuracy or completeness of this information. Readers should refer to the relevant state, federal, and local agencies for additional or the most up to date water supply information. Reservoirs, lakes, aqueducts, maps, watersheds, and all other visual representations on this report are not drawn to scale.

<http://www.mwdh2o.com/WSCR>

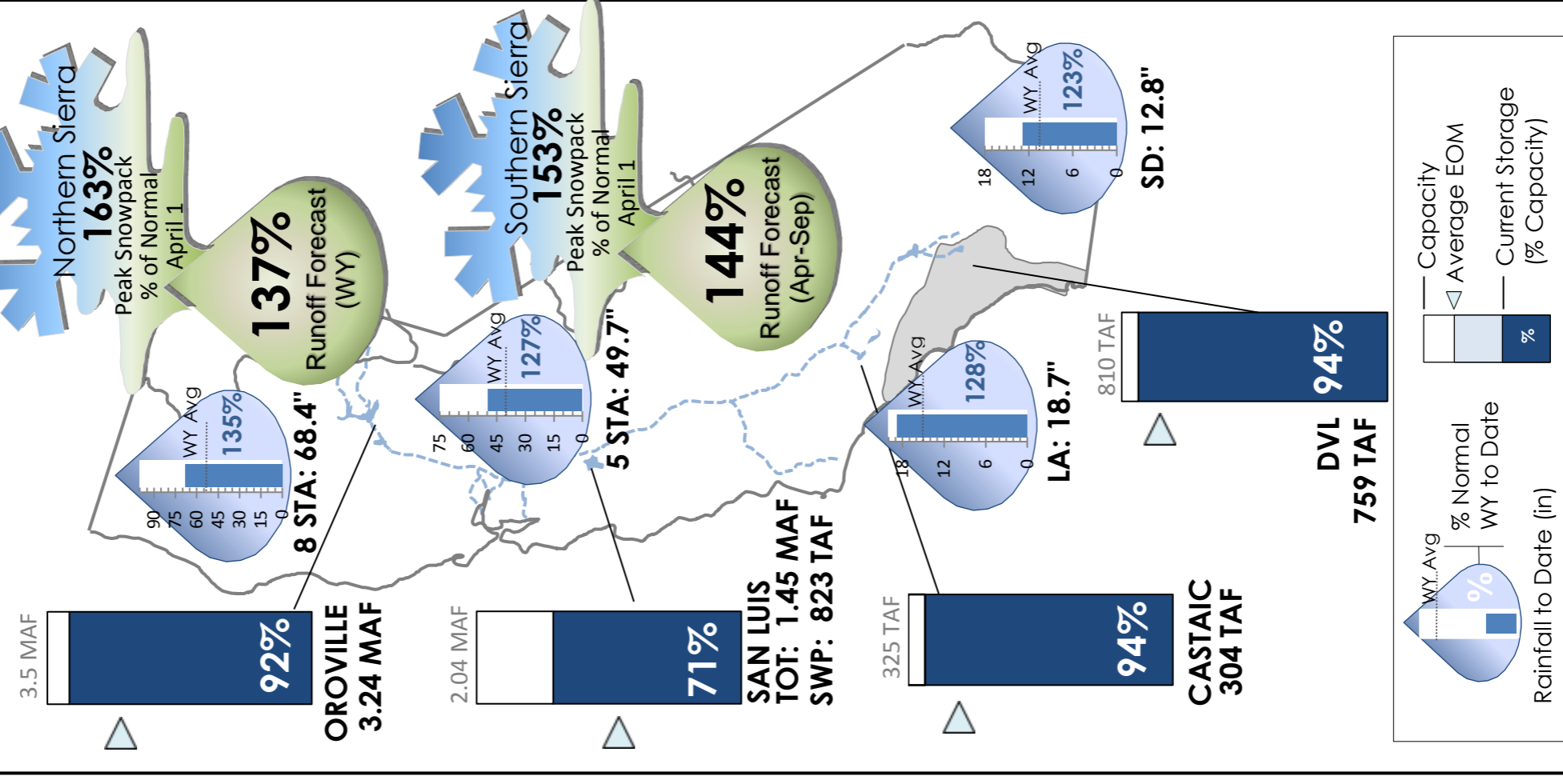
This report is best printed double sided on legal size paper (8.5" x 14") and folded in quarters

Water Supply Conditions Report

As of: 07/22/2019

2019 SWP Allocation

1,433,625 AF
75% of Table A



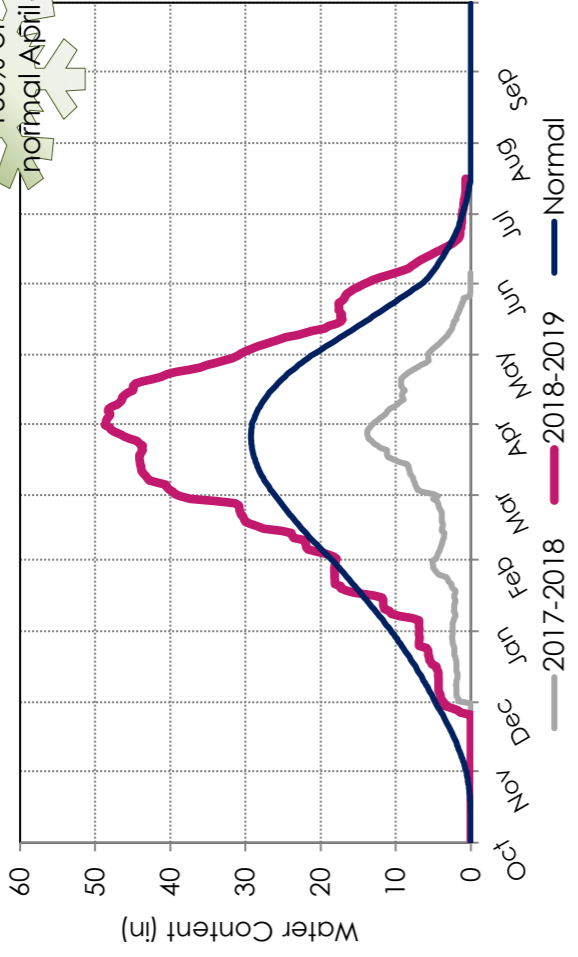
Turn page for more SWP Data Flip Over for CRA Data

State Water Project Resources

As of: 07/22/2019

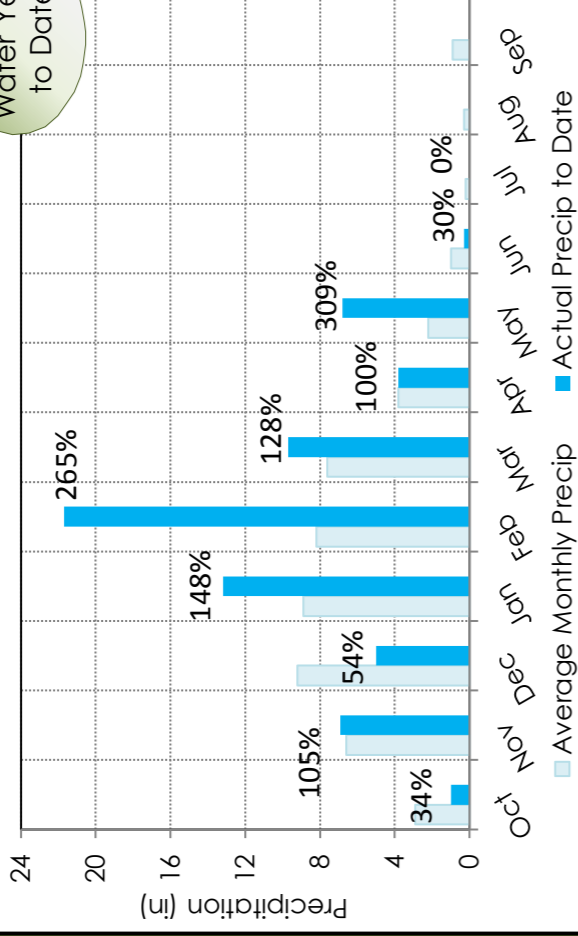
Northern Sierra Snowpack

Peak: 48.7 in.
163% of Normal April 1



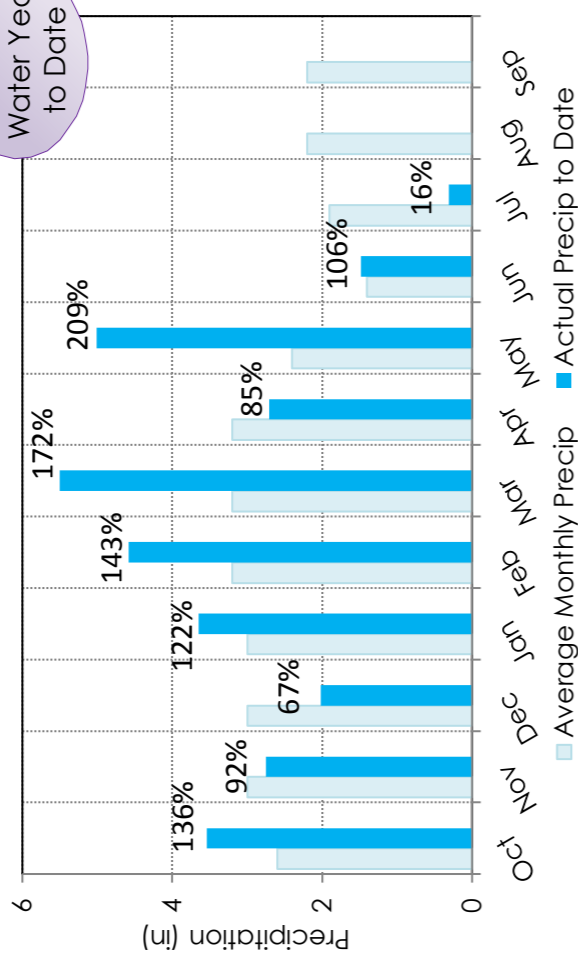
8 Station Index Precip

68.4 in. Water Year to Date



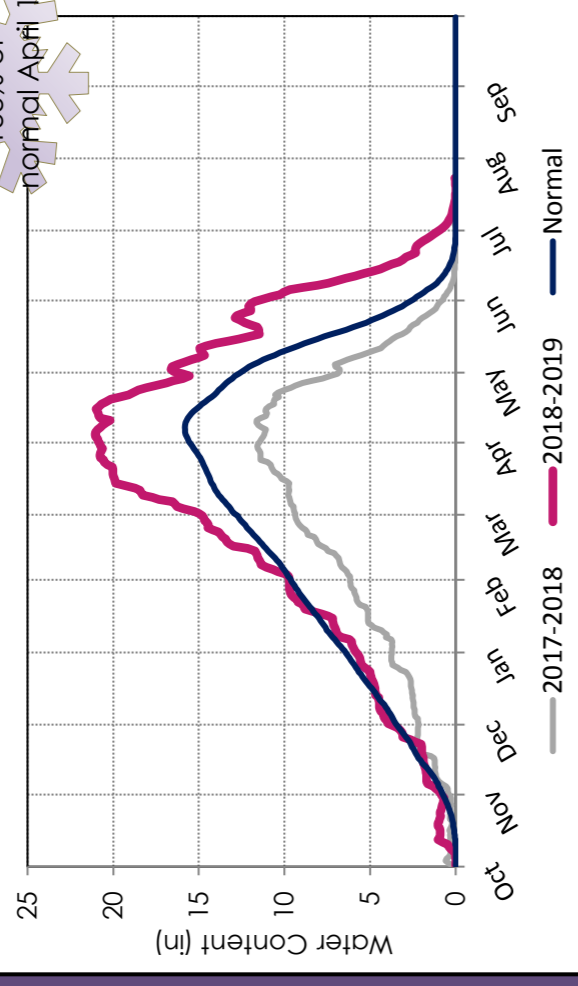
Upper Colorado Basin Precip

31.8 in. Water Year to Date



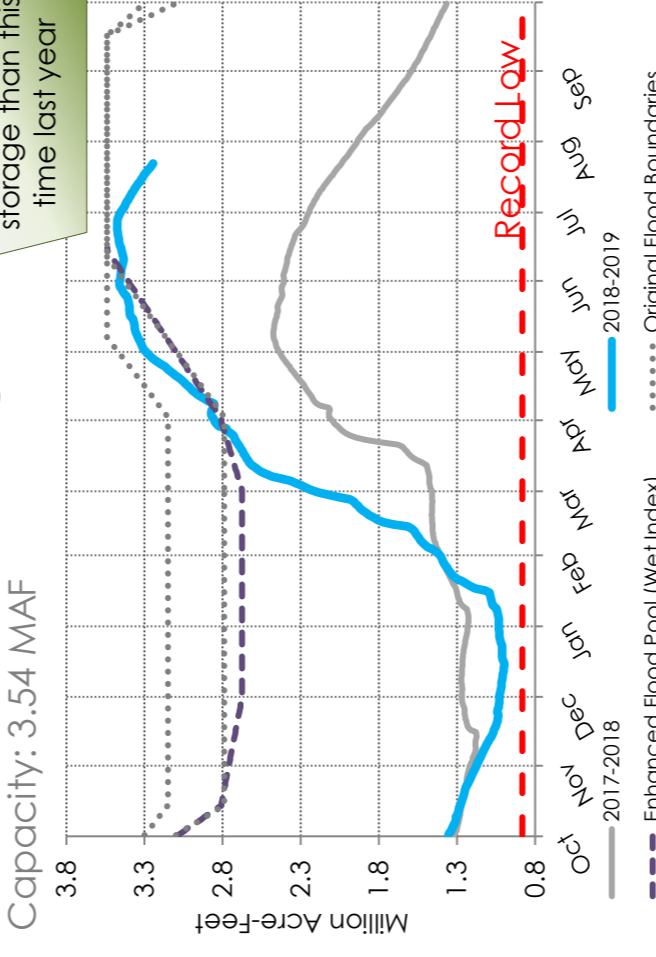
Upper Colorado Basin Snowpack

Peak: 21.1 in.
133% of Normal April 1

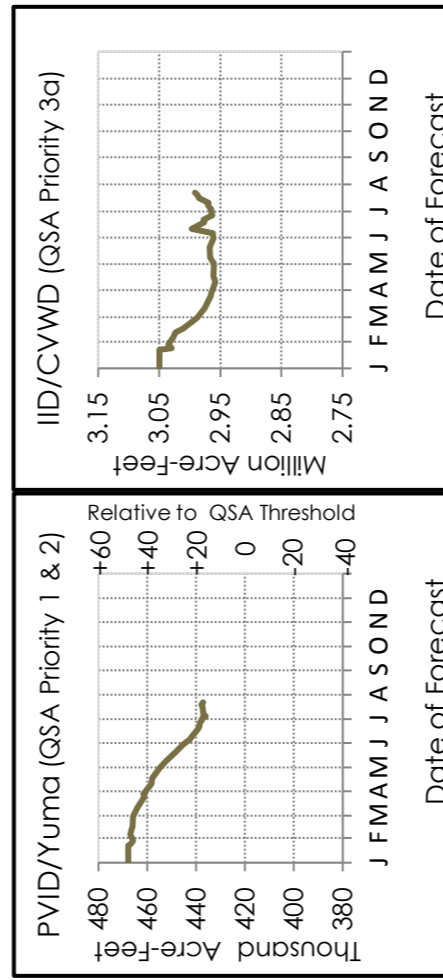


Oroville Reservoir Storage

1.20 MAF more in storage than this time last year

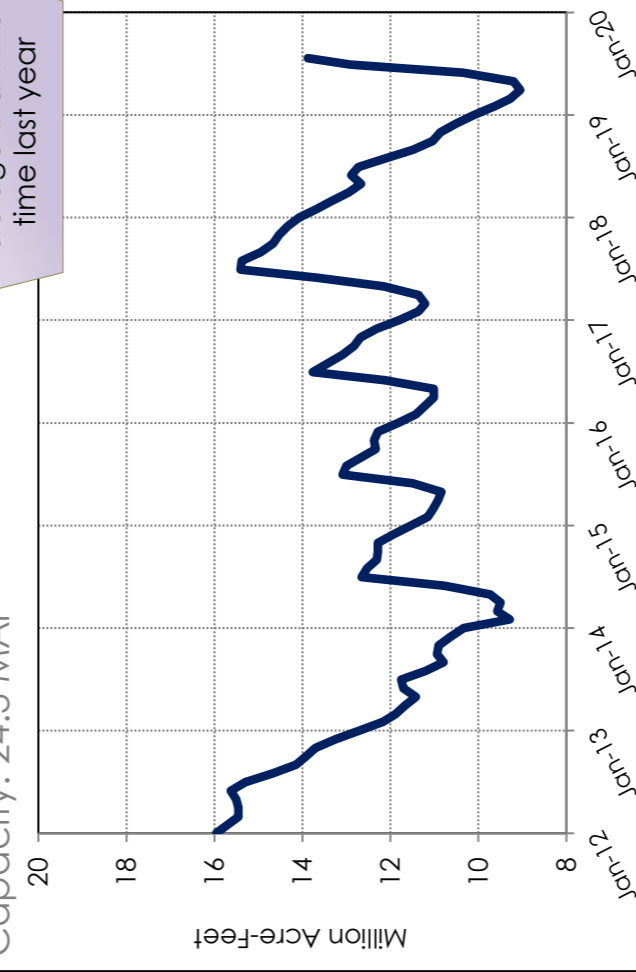


2018 Colorado River Ag Use



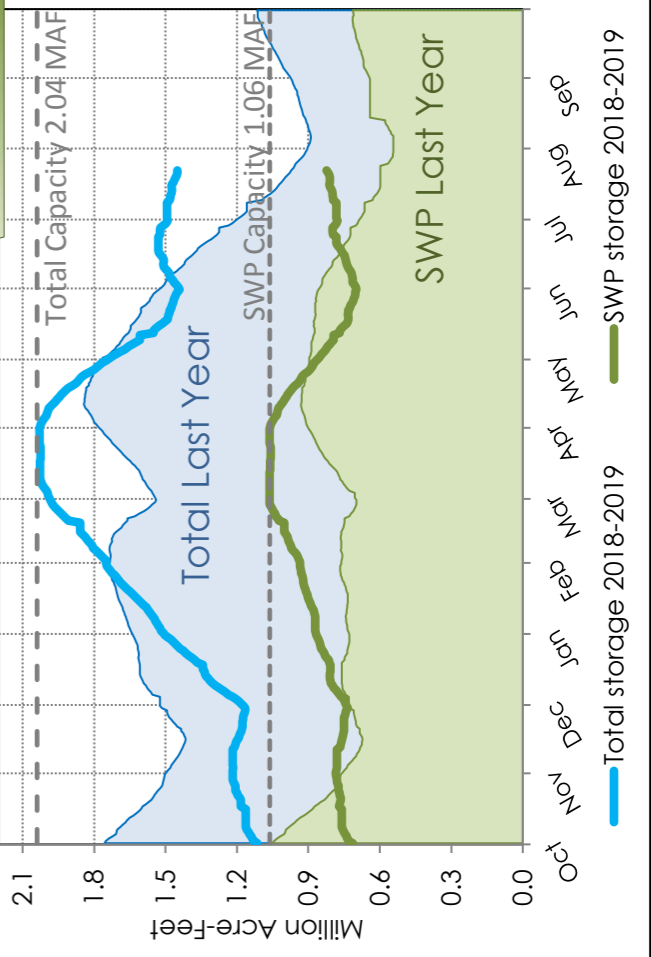
Lake Powell Storage

1.57 MAF more in storage than this time last year



San Luis Reservoir Storage

224 TAF more in SWP storage than this time last year



Other SWP Contract Supplies for 2019 (AF)

Article 21	65,000
Carryover	93,000

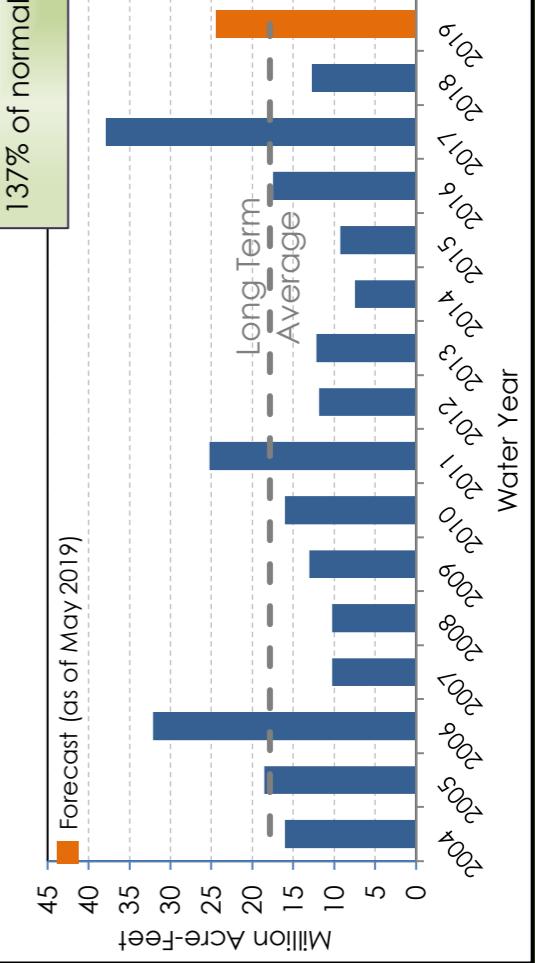
Lake Mead Shortage/Surplus Outlook

	2020	2021	2022	2023	2024
Shortage	0%	6%	26%	31%	37%
Surplus	0%	< 1%	8%	13%	19%

Likelihood based on results from the June 2019 MTOM/CRSS model run. Includes DCP Contributions.

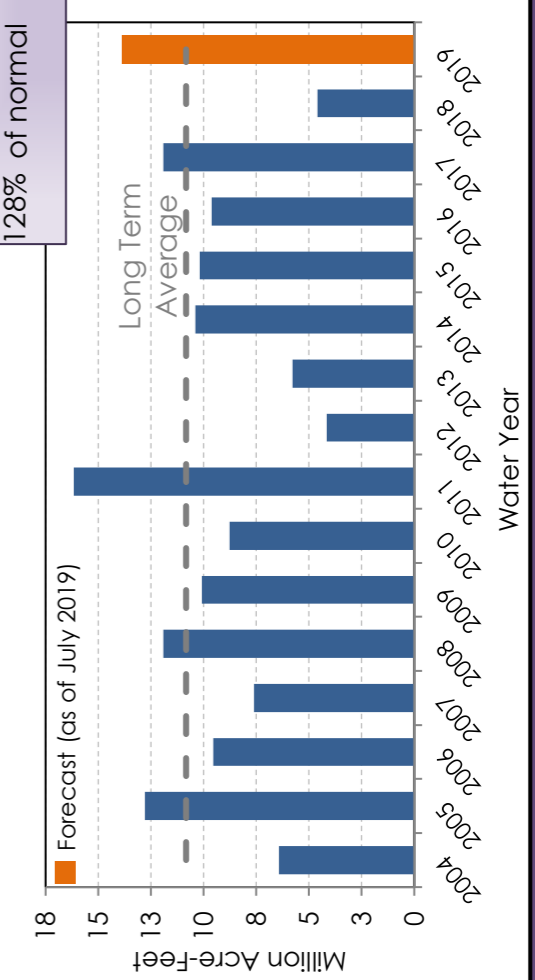
Sacramento River Runoff

WY 2019 137% of normal



Powell Unregulated Inflow

WY 2019 128% of normal

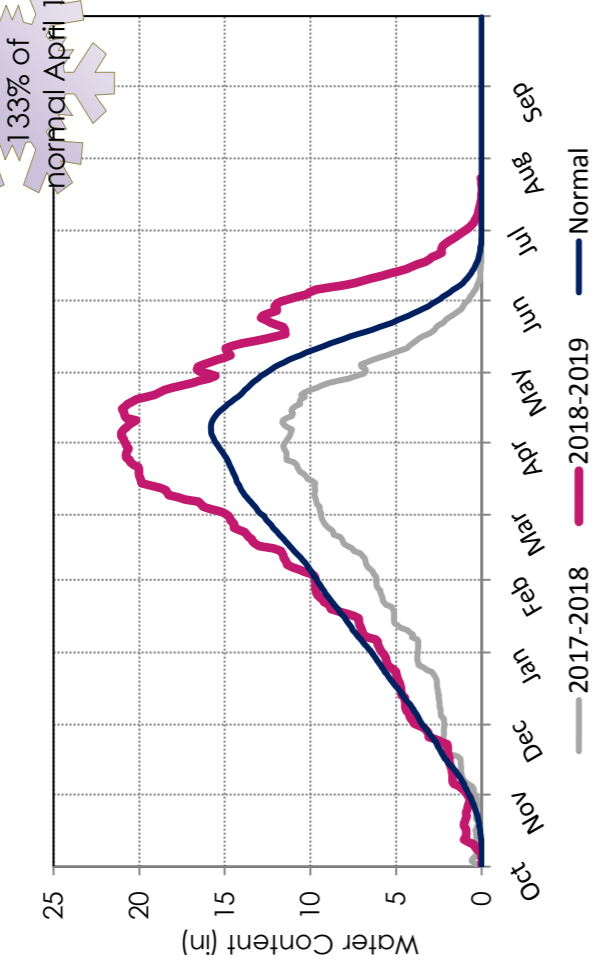


Colorado River Resources

As of: 07/22/2019

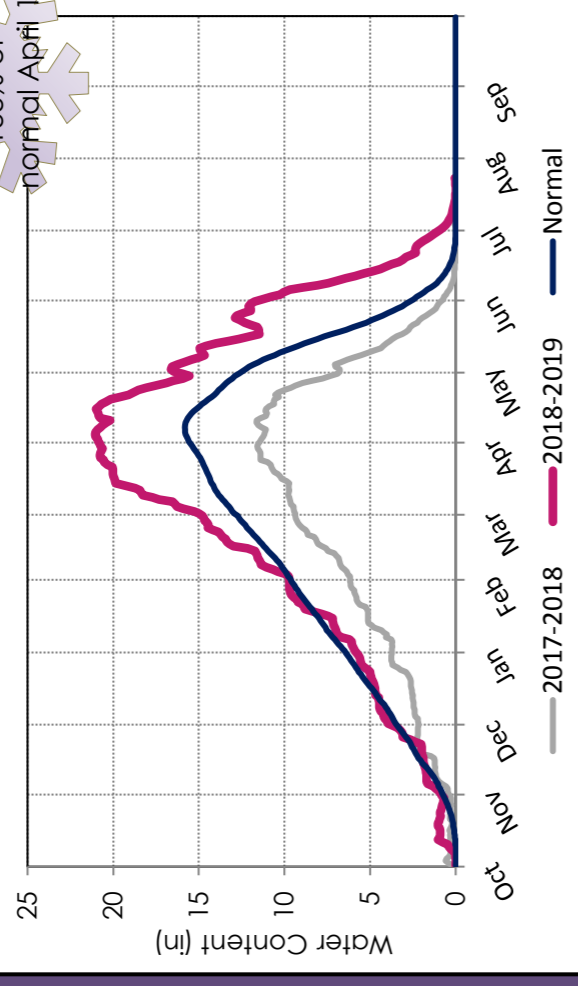
Lake Mead Storage

524 TAF more in storage than this time last year



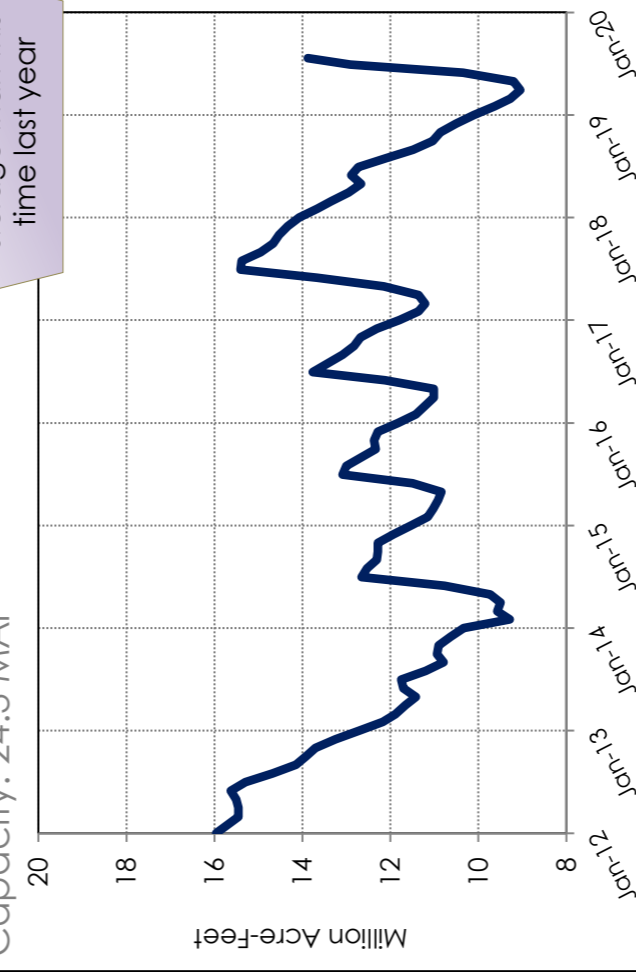
Upper Colorado Basin Snowpack

Peak: 21.1 in.
133% of Normal April 1



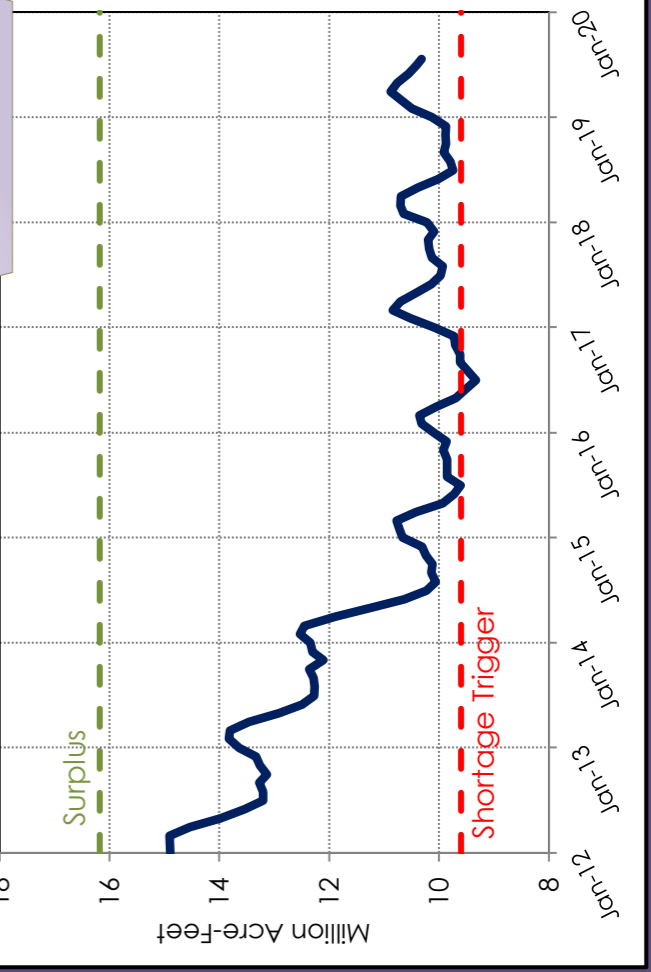
Lake Powell Storage

1.57 MAF more in storage than this time last year



Lake Mead Storage

524 TAF more in storage than this time last year





August 6, 2019 LVMWD Regular Board Meeting

TO: Board of Directors

FROM: General Manager

Subject : ACWA Committee Appointment Nominations for 2020-2021 Term

SUMMARY:

On July 23, 2019, the District received the attached correspondence from ACWA that new officers for President and Vice President would be elected at the Fall Conference and requesting that ACWA members prepare to reconstitute all committees for the 2020-2021 term. A Committee Consideration Form must be completed and returned to ACWA no later than September 30, 2019 for the District's nominations to be eligible for consideration.

During the 2019-20 term, the following Board Members served on ACWA Committees: Director Charles Caspary (State Legislative), Director Jay Lewitt (Federal Affairs) and Director Len Polan (Water Management). In addition, former Director of Facilities and Operations David Lippman served on the Energy Committee.

RECOMMENDATION(S):

Select candidates for ACWA committee appointment or re-appointment consideration, and authorize the General Manager to sign and return the completed Committee Consideration Form to ACWA no later than September 30, 2019.

FISCAL IMPACT:

No

ITEM BUDGETED:

No

FINANCIAL IMPACT:

There is no financial impact associated with this item. If committee appointments are confirmed by ACWA, the District would be responsible for all costs associated with the

participation of its representatives on the committees.

Prepared by: David W. Pedersen, General Manager

ATTACHMENTS:

Notification of ACWA Committee Nominations

From: [Ana Javald](#)
Subject: ACWA 2020-2021 Committee Consideration Process
Date: Tuesday, July 23, 2019 1:00:22 PM

MEMORANDUM

July 23, 2019

TO: ACWA MEMBER AGENCY BOARD PRESIDENTS
ACWA MEMBER AGENCY GENERAL MANAGERS

FROM: Brent Hastey, ACWA PRESIDENT

SUBJECT: ACWA COMMITTEE APPOINTMENT CONSIDERATIONS FOR THE 2020-2021 TERM

PLEASE RESPOND BY SEPTEMBER 30, 2019

Thank you for your involvement with ACWA. As you know, Committees are an integral part of ACWA's activities and policy development. With the end of the current Committee term fast approaching, it is time again to request 2020-2021 Committee nominations from ACWA members. All Committees will be reconstituted following the election of new officers (ACWA's President / Vice-President) at the 2019 ACWA Fall Conference.

In submitting names for consideration, please do so with the understanding that Committees need active, involved individuals able to expend the time and provide their expertise, if appointed. Please keep in mind that the district is responsible for all costs associated with the participation of its representatives on Committees.

The following information is available at [ACWA's website](#) or by clicking on each link.

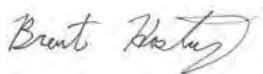
- [ACWA Policy Committee Composition](#)
- [ACWA Committee Consideration Form](#)
- [ACWA Committee Consideration Process Timeline](#)

If you would like to reference current Committee members serving on a ACWA Committee please click [here](#).

All correspondence and forms regarding Committee appointments must be submitted to the ACWA office no later than September 30, 2019 to be eligible for consideration. Committee appointments will be made by the incoming ACWA President in December. Please contact Interim Business Services Specialist, Petra Rice, at petrar@acwa.com or (916) 441-4545, if you have any questions concerning the Committee appointment process.

We appreciate your timely attention to this matter.

Thank you,



Brent Hastey, ACWA President

ACWA COMMITTEE COMPOSITION

COMMITTEE

LIAISON

Agriculture Committee – Standing/Unlimited

Meetings: 2-3 times a year

The Agriculture Committee makes recommendations to the Board of Directors, State Legislative Committee, Federal Affairs Committee or other committees, as appropriate, regarding agricultural issues affecting the interests of ACWA and its members. This newly-formed committee is currently being assembled.

Adam Borchard

Regulatory Advocate

adamb@acwa.com

Business Development Committee – Standing/Unlimited

Meetings: 2 times a year

The Business Development Committee develops and recommends to the Board of Directors programs and activities to be provided or administered by the association that generate non-dues revenue and provide a service or benefit to association members.

Paula Currie

Director of Business

Development & Events

paulac@acwa.com

Communications Committee – Standing/Limited (40 maximum)

Meetings: 4 times a year

The Communications Committee develops and recommends to the Board of Directors and ACWA staff regarding communications and public affairs programs. The committee promotes sound public information and education programs and practices among member agencies. It prepares and distributes materials for use by member agencies in their local outreach efforts. It also provides input and guidance to ACWA's Communications Department.

Heather Engel

Director of

Communications

heathere@acwa.com

Energy Committee – Standing/Unlimited

Meetings: 2 times a year

The Energy Committee recommends policies and program to the Board of Directors, the State Legislative Committee and the Federal Affairs Committee as appropriate.

Chelsea Haines

Regulatory Advocate II

chelseah@acwa.com

Federal Affairs Committee – Standing/Limited (5 Per Region)

Meetings: 2 times a year

The Federal Affairs Committee coordinates with other ACWA committees regarding input on federal issues before both Congress and the federal administrative branches.

David Reynolds

Director of Federal

Affairs

[dlreyns@sso.org](mailto:dltreyns@sso.org)

Finance Committee – Standing/Limited (2 Per Region – 1 Region Chair or Vice Chair; 1 with financial experience)

Meetings: 4-5 times a year

The Finance Committee makes recommendations to the Board of Directors regarding annual budgets, investment strategies, annual audits and auditor selection, dues formula and schedule, and other financial matters.

Fili Gonzales

Director of Finance &

Business Services

filig@acwa.com

Groundwater Committee – Standing/Unlimited

Meetings: 4 times a year

The Groundwater Committee makes recommendations to the Board of Directors on groundwater policy issues. The committee also monitors state and federal regulations and legislation affecting the quality and management of groundwater, conducts studies and gathers data on groundwater issues, develops policies regarding groundwater management and coordinates with other committees on groundwater issues.

Dave Bolland

Director of State

Regulatory Relations

daveb@acwa.com

Legal Affairs Committee – Standing/Limited (45 Maximum)

Meetings: 2-3 times a year

The Legal Affairs Committee acts on requests for assistance on legal matters of significance to ACWA member agencies. It also reviews proposed ACWA bylaw revisions and works with staff to produce publications to assist member agencies in complying with state and federal laws. The committee files amicus curiae filing on important cases, comments on proposed regulations and guidelines of state agencies such as the Fair Political Practices Commission and monitors and engages in water rights waters of interest to member agencies.

**The committee shall be composed of between 34 and 44 attorneys, each of whom shall be, or act as, counsel for a member of the Association.*

Kris Anderson
Legislative Advocate I
krisa@acwa.com

Local Government Committee – Standing/Limited (3 Per Region)

Meetings: 4 times a year

The Local Government Committee makes recommendations to the Board of Directors and the State Legislative Committee on local government matters affecting water agencies, including planning issues, local government organization, and finance. The committee also gathers and disseminates information on the value of special districts, and shares information promoting excellence in local government service delivery.

Adam Quiñonez
*Director of State
Legislative Relations*
adamq@acwa.com

Membership Committee – Standing/unlimited

Meetings: 2 times a year

The Membership Committee makes recommendations to the Board of Directors regarding membership policies, eligibility and applications for membership. The committee assists staff in developing membership recruitment and retention programs and reviews and makes recommendations to the Finance Committee regarding an equitable dues structure.

Tiffany Giammona
*Director of Member
Outreach &
Engagement*
tiffanyg@acwa.com

State Legislative Committee – Standing/Limited (4 Per Region)

Meetings: 10-12 times a year

The State Legislative Committee reviews relevant introduced and amended legislation, and develop positions and provide recommendations to the Board of Directors on ballot measures and other major statewide policy issues. The committee also works with staff amendments to bills and provides director for staff on legislative matters.

Adam Quiñonez
*Director of State
Legislative Relations*
adamq@acwa.com

Water Management Committee – Standing/Limited (4 Per Region)

Meetings: 4 times a year

The Water Management Committee makes recommendations to the Board of Directors on policy and programs related to water management. The committee reviews and recommendation positions on legislation and regulations as requested by other committees. The committee also assists in gathering and disseminating information regarding agricultural and urban water management, water conservation and water use efficiency, development and use of water resources, wastewater treatment and water recycling and reuse.

Dave Bolland
*Director of State
Regulatory Relations*
daveb@acwa.com

Water Quality Committee – Standing/Unlimited

Meetings: 4 times a year

The Water Quality Committee makes recommendations to the Board of Directors, the State Legislative Committee and the Federal Affairs Committee on policy and program regarding water quality issues. The committee promotes cost-effective state and federal water quality regulations and provides a forum for members to work together to develop and present unified comments on water quality regulations. The committee also develops and recommends positions and testimony on water quality regulatory issues.

Adam Borchard
Regulatory Advocate
adamb@acwa.com



August 6, 2019 LVMWD Regular Board Meeting

TO: Board of Directors

FROM: Facilities & Operations

Subject : Rondell Oasis Hotel: Easement Encroachment Agreement

SUMMARY:

The Rondell Oasis Hotel is a project under development at 26300 Rondell Road near Las Virgenes Road at southbound on-ramp to the 101 Freeway in the City of Calabasas. The proposed project includes a 4-story hotel with up to 127 rooms, a pool and surface parking on a 4.13-acre property. A District-owned 30-inch water main passes through the proposed project site within a 20-foot-wide easement. Given the location of the easement, the property owner has requested authorization of an encroachment to allow for grading and construction of hardscape and landscape improvements within the easement area. Based on the plans, a concrete water fountain, planters, pavement, curbs and landscaping are proposed within the easement area.

Staff requests authorization to execute the attached Easement Encroachment Agreement, which has been approved as to form by District Counsel, to allow the proposed improvements within the easement area. The agreement ensures that the encroachment would not interfere with the District's operation and maintenance of the 30-inch water main and provides a broad indemnification to the District for any potential future liability associated with the encroachment.

RECOMMENDATION(S):

Authorize the General Manger to execute the Easement Encroachment Agreement with Rondell Hotel, LLC, authorizing an encroachment for construction of improvements associated with the Rondell Oasis Hotel at 26300 Rondell Road, Calabasas.

FISCAL IMPACT:

No

ITEM BUDGETED:

No

FINANCIAL IMPACT:

There is no financial impact associated with the proposed action.

DISCUSSION:

The property owner for the Rondell Oasis Hotel has requested an easement encroachment to proceed with plans to grade and construct architectural landscaping above a 30-inch water main owned by the District. The water main is within a 20-foot-wide easement (see Attachment 1) that runs directly through the property. As shown on Sheet Nos. 1 to 3 of Attachment 2, the Easement Encroachment Agreement, the hotel developer proposes to build a concrete water fountain together with other hardscape and landscaping features that would encroach on the District-owned easement for the 30-inch water main. A detailed list of the elements of the proposed encroachment is included as Exhibit 1 to the agreement.

The developer agreed to execute the Easement Encroachment Agreement, which will be recorded on the property, indemnifying the District from any future liability that could be associated with the encroachment, including repair and/or restoration work that may be required for any of the encroaching improvements. The agreement ensures that the encroachment would not interfere with the District's operation and maintenance of the 30-inch water main. District Counsel has reviewed and approved the proposed agreement as to form.

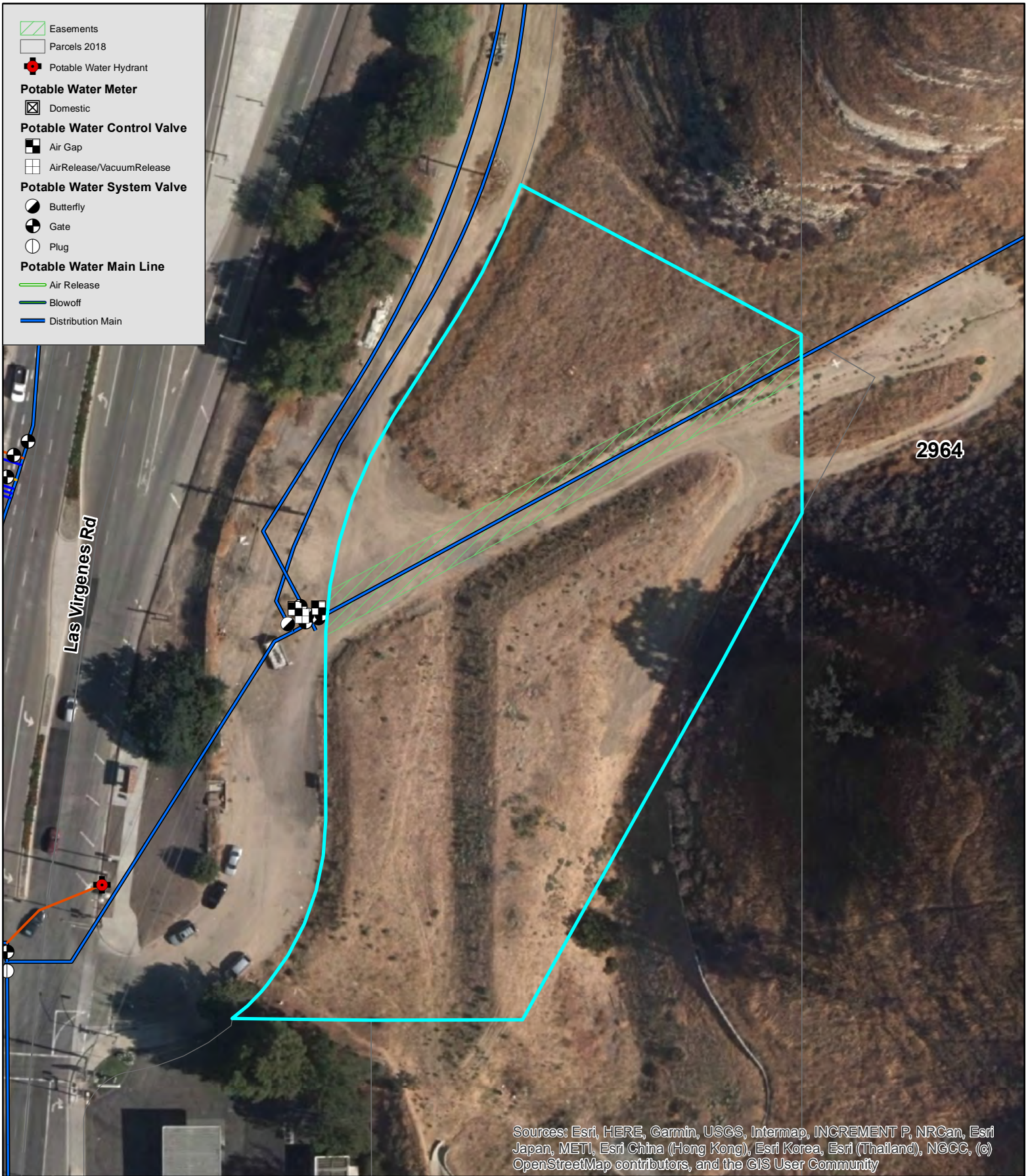
GOALS:

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

Prepared by: Veronica Hurtado, Assistant Engineer

ATTACHMENTS:

- Attachment 1 - Map of Utilities and Easement
- Attachment 2 - Easement Encroachment Agreement



ATTACHMENT 1

Las Virgenes Municipal Water District is not responsible for the accuracy of this presentation. This presentation is for illustrative purposes only. Verify the physical location of all property lines, water lines and ancillary information prior to use.

RECORDING REQUESTED BY, AND
WHEN RECORDED RETURN TO

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

THE AREA ABOVE IS RESERVED FOR RECORDER'S USE

EASEMENT ENCROACHMENT AGREEMENT

As of August 6, 2019, LAS VIRGENES MUNICIPAL WATER DISTRICT (“District”) and Rondell Hotel, LLC (“Rondell”) agree as follows:

Section 1. Purpose and Scope. Rondell owns the property known as 26300 Rondell St, Calabasas, CA, APN 2069-078-902,904 (“Site”). There is one utility line and easement belonging to the District that passes through the Site. The District owns an easement on the Site for a 30 inch water line, set forth in the easement recorded on March 30, 1966, recordation number BKD3255PG157, in the Official Records of Los Angeles County, CA (“Easement”). This Agreement sets forth the terms on which Rondell may construct improvements on the Easement.

Section 2. Use of the Easement. Rondell may construct improvements within the Easement as shown in the attached and hereby incorporated Attachment A and Exhibit 1, (“Improvements”) to the extent that such Improvements do not increase the burden on, or interfere with, the District’s use of the Easement. The Improvements shall not prevent the District from obtaining access to the Easement or District improvements located within the Easement. Rondell shall repair any damages discovered from its construction activities at its own expense.

Section 3. Indemnification. To the fullest extent permitted by law, Rondell shall immediately indemnify and hold District, its directors, officials, officers, employees, volunteers, and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage, or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any alleged acts, errors, or omissions of Rondell, its officials, officers, employees, subcontractors, consultants, or agents in connection with the Improvements, Rondell’s access to the Easement, or this Agreement, including without limitation the payment of all consequential damages,

attorneys' fees and costs, including expert witness fees. Rondell's obligation to indemnify shall survive expiration or termination of this Agreement, and shall not be restricted to insurance proceeds, if any, received by District, its directors, officials, officers, employees, agents, or volunteers.

In addition to the foregoing: Rondell agrees that the District will not be liable for any damages whatsoever, including direct, indirect, incidental, special, consequential, or exemplary damages and including the costs for repair, replacement, or restoration of any fixture or structure constructed or placed in the easement area (even if the District has been advised of the possibility of such damages), arising from, relating to, or connected with Rondell's access to or use of the easement, except when such damages are caused by the gross negligence or willful misconduct of the District.

Section 4. General Provisions.

(a) Except as provided herein, this Agreement shall not modify or amend the terms and condition of the Easement.

(b) This Agreement shall bind and benefit the parties, their successors in interest, and assigns.

THE PARTIES HAVE EXECUTED THIS AGREEMENT AS OF THE DATE SET FORTH ABOVE.

Las Virgenes Municipal Water District

By:
General Manager

District Counsel:

Rondell Hotel, LLC

By:
Title:

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA)
) ss:
COUNTY OF LOS ANGELES)

On _____ before me, _____
(insert name and title of the officer),

personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

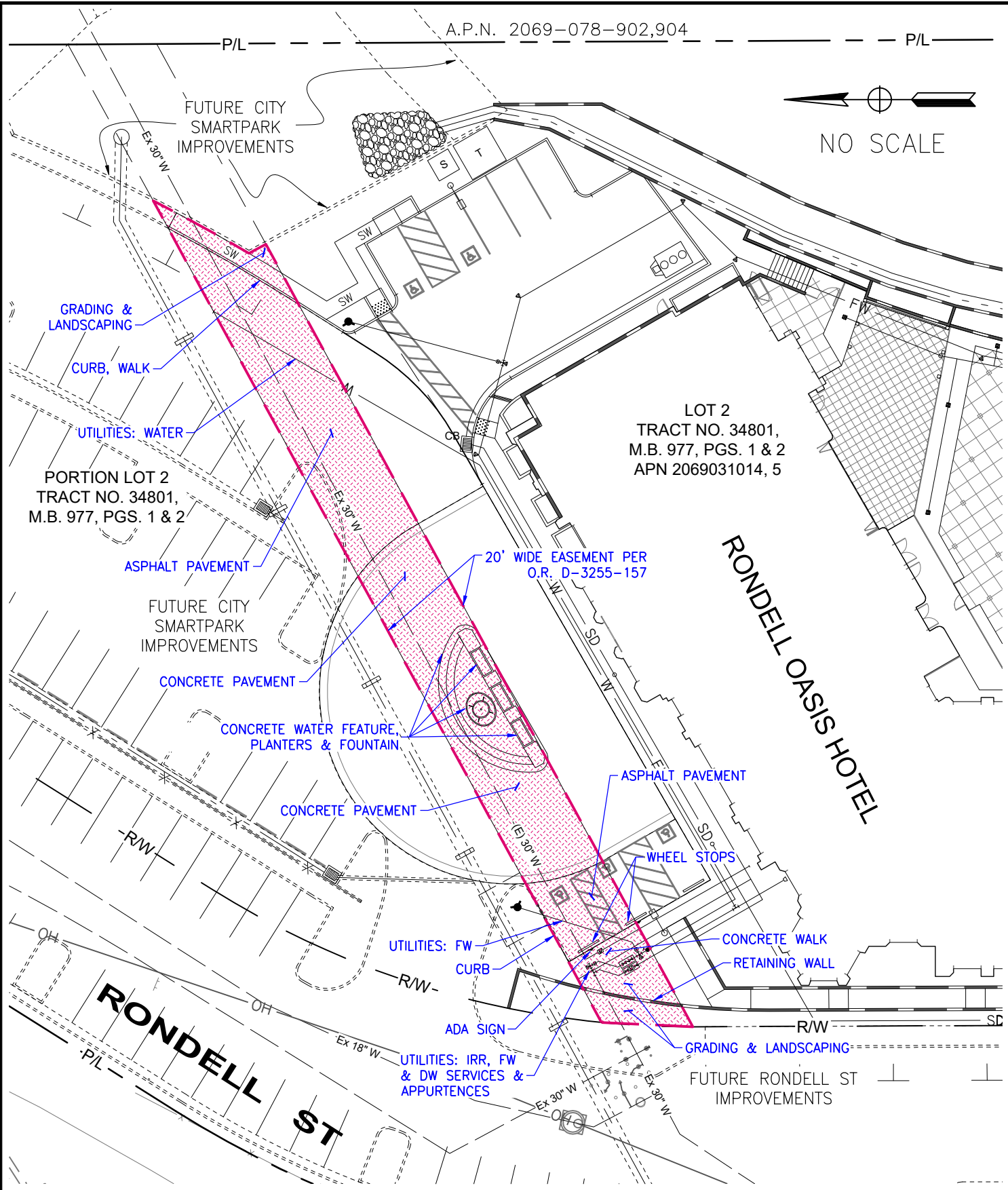
WITNESS my hand and official seal.

Signature: _____

[Seal]



NO SCALE



BY:

John Kular Consulting
 1982 Seasons St, Simi Valley, CA 93065
 661-302-1292 kularconsult.com

RONDPELL OASIS HOTEL
 26300 RONDELL ST, CALABASAS, CA 91301
 TRACT NO. 34801, APN 2069031014,5

Attachment A

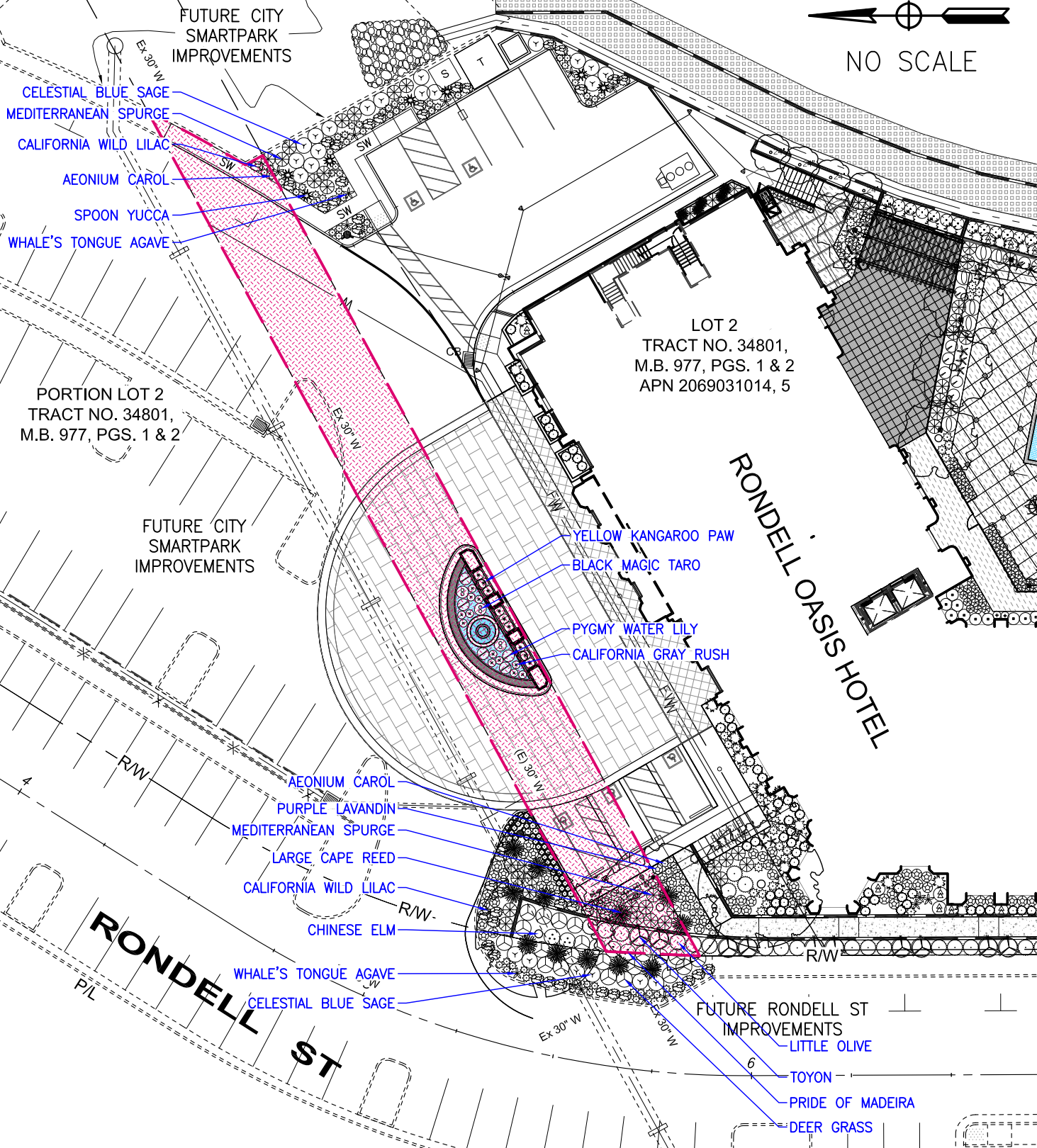
SHEET: 1 OF 3

LVMWD EASEMENT ENCROACHMENTS

S:\Work\Projects\Rondell Oasis Hotel\Drawings\OASIS LVMWD Esmt Encroachments.dwg 5/29/2019 3:44 PM



NO SCALE



P:\Projects\Active\1423 Rondell\HOTEL\CAD\Current DWG\HOTEL\SHEET FILES\LVMWD Easement Encroachments.dwg 6/27/2019 5:13 PM

BY:

John Kular Consulting
 1982 Seasons St, Simi Valley, CA 93065
 661-302-1292 kularconsult.com

RONDELL OASIS HOTEL
 26300 RONDELL ST, CALABASAS, CA 91301
 TRACT NO. 34801, APN 2069031014,5

SHEET: 2 OF 3

LVMWD EASEMENT ENCROACHMENTS

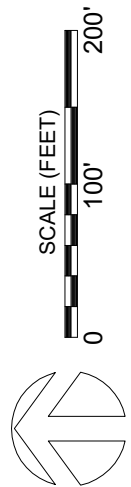
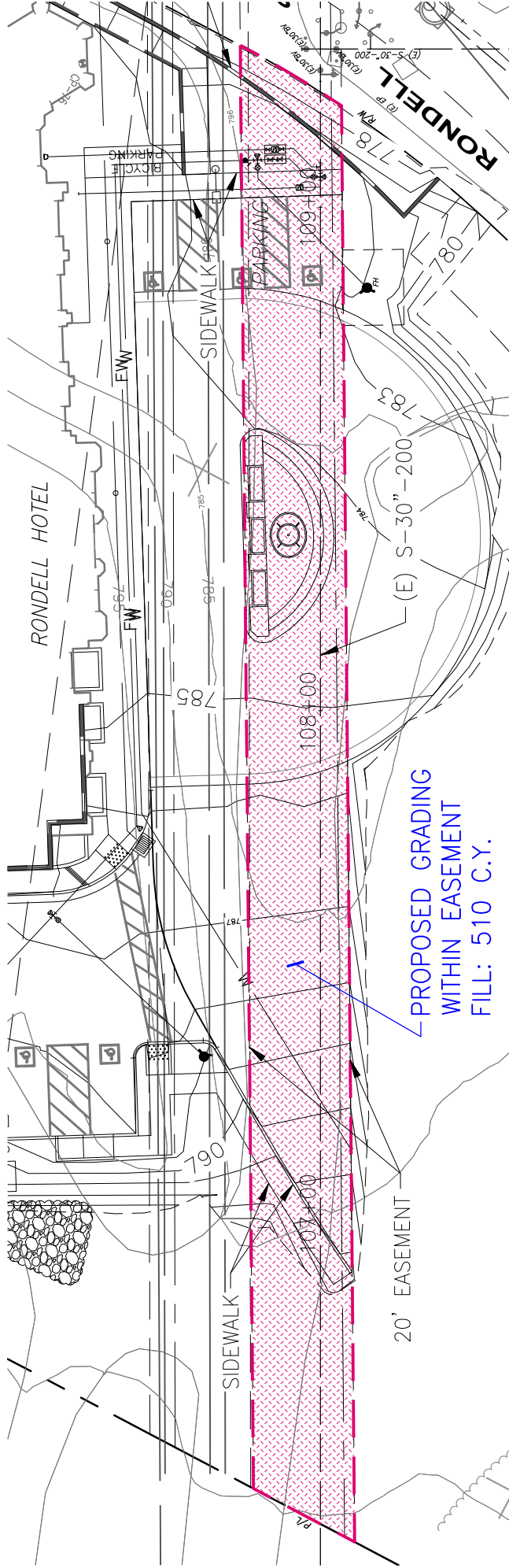
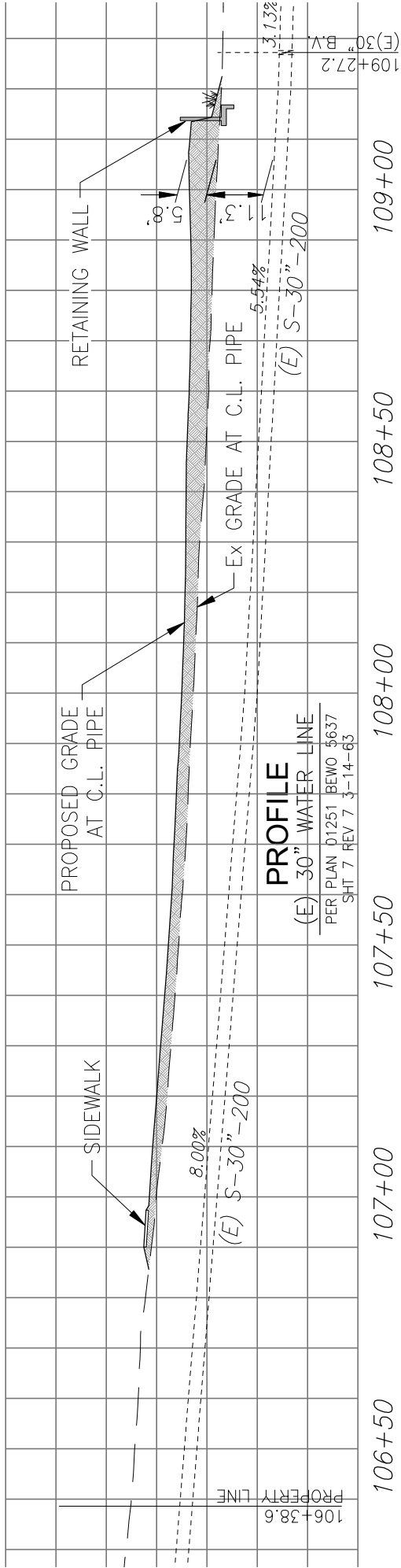


Exhibit 1

30" WATER LINE PER LVMWD 01249,01251

(20' WIDE EASEMENT PER O.R. D-3255-157).

List of Encroachments:

Sheet 1:

1. 58 LF 6" CONCRETE CURB
2. 253 SF 4" CONCRETE WALK
3. 2035 SF ASPHALT PAVEMENT (4" AC OVER 9" AB)
4. 1325 SF CONCRETE PAVEMENT (6" PCC OVER 6" AB)
5. 2- WHEEL STOPS
6. ADA SIGN, ADA PAVEMENT MARKINGS
7. 1/2" PRIVATE WATER LINE CROSSING
8. 1- 1" IRRIGATION WATER SERVICE HOT TAP, 1" WATER METER
9. 1- 6" FIRE SERVICE HOT TAP, 6" DETECTOR CHECK ASSEMBLY
10. 1- 3" DOMESTIC WATER SERVICE HOT TAP, 3" WATER METER

Sheet 2:

Landscaping:

1. 8- 5 gal. Mediterranean Spurge
2. 4- 5 gal. Ceanothus
3. 6- 5 gal. Carol's Aeonium
4. 9- 5 gal. Kangaroo Paw
5. 3- 2 gal. Taro
6. 12- 1 gal. California Gray Rush
7. 5- 3-5 gal. Water Lily
8. 6- 5 gal. Lavandin
9. 3- 5 gal. Large Cape Reed
10. 2- 15 gal. Toyon
11. 5- 15 gal. Little Olive
12. 2- 15 gal. Pride of Madeira
13. 5- 5 gal. Deer Grass
14. 1- 60" box Chinese Elm
15. Fountain 212 SF Water
16. Irrigation (Drip and Bubbler) – 409 sf



August 6, 2019 LVMWD Regular Board Meeting

TO: Board of Directors

FROM: Facilities & Operations

**Subject : Liberty Canyon Emergency Fire Hydrant Repair: Ratification of
Emergency Declaration**

SUMMARY:

On July 11, 2019, a fire hydrant break occurred along Liberty Canyon Road near the intersection with Agoura Road (see attached vicinity map). Standby staff responded to the break and crews repaired the fire hydrant on July 15th. However, the corrosion break occurred on a buried section of the fire hydrant and caused significant damages to the surrounding sidewalk and asphalt pavement (see attached photos), which need to be removed and replaced to mitigate hazardous conditions to the public. As a result, the General Manager authorized staff to hire R.C. Becker & Sons to replace the buckled concrete sidewalk and lifted asphalt pavement on an emergency basis. The cost of the work was estimated to be more than \$35,000, which is the limit of the General Manager's authority and requires Board approval. Staff recommends that the Board ratify the General Manager's declaration of emergency for the work.

RECOMMENDATION(S):

Pass, approve and adopt proposed Resolution No. 2560, ratifying the General Manager's declaration of an emergency that requires immediate action without delay to perform sidewalk and asphalt pavement repair on Liberty Canyon Road.

RESOLUTION NO. 2560

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT FINDING THAT AN EMERGENCY WOULD NOT PERMIT A DELAY RESULTING FROM A COMPETITIVE SOLICITATION FOR SIDEWALK AND ASPHALT REPAIR RESULTING FROM A FIRE HYDRANT BREAK ALONG LIBERTY CANYON ROAD NEAR THE AGOURA ROAD INTERSECTION IN AGOURA HILLS

(Reference is hereby made to Resolution No. 2560 on file in the District's Resolution Book and by this reference the same is incorporated herein.)

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The total cost of the repair work is estimated to be \$38,466.40, consisting of \$20,152.40 to remove and replace the sidewalk and \$18,314.00 to remove and replace the asphalt pavement. Sufficient funding for the work is available in the adopted Fiscal Year 2019-20 Budget.

DISCUSSION:

On Thursday, July 11, 2019, standby staff were alerted to a fire hydrant break on Liberty Canyon Road. The fire hydrant failure undermined the surrounding soil, which caused displacement of the existing curb, gutter, sidewalk and a section of roadway pavement. The hydrant was repaired by District staff. However, broken sidewalk, curb, and gutter extended 18 feet north of the hydrant and 122 feet south, for a total of 140 feet of concrete and pavement damaged by the broken fire hydrant.

The City of Agoura Hills and nearby residents expressed an urgency for repairs to mitigate the hazard of uneven pavement and allow for reopening of the bike lane along the stretch of Liberty Canyon Road. Staff solicited three quotes to replace the sidewalk, curb, gutter and street damaged by the broken fire hydrant. Quotes were received from Toro Enterprise and R.C. Becker & Sons, in the amounts of \$61,036.75 and \$38,466.40, respectively. A third contractor declined to bid. With approval of the General Manager, staff issued an emergency purchase order to R.C. Becker & Sons to complete the work.

GOALS:

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

Prepared by: Veronica Hurtado, Assistant Engineer

ATTACHMENTS:

Vicinity Map

Photos of Damage

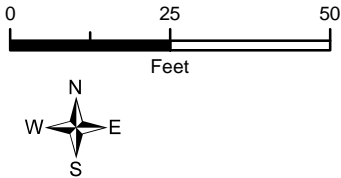
Emergency Purchase Order

Proposed Resolution No. 2560



	Parcels 2018
	Potable Water Hydrant
Potable Water Meter	
	Domestic
Potable Water Control Valve	
	Blowoff
Potable Water System Valve	
	Gate
Potable Water Main Line	
	Blowoff
	Distribution Main
Recycled Water System Valve	
	Butterfly
	Gate
Recycled Water Main Line	
	Distribution Main
ss Manhole	
	Standard
ss Gravity Main	
	Trunk

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



Liberty Canyon Rd Fire Hydrant Break

Las Virgenes Municipal Water District is not responsible for the accuracy of this presentation. This presentation is for illustrative purposes only. Verify the physical location of all property lines, water lines and ancillary information prior to use.

Photos of Liberty Canyon Rd













Requisition Date:	Requisitioned By:	Extension:
-------------------	-------------------	------------

Type of Purchase: Requires approval per department process and District purchasing authorization limits		
OP=Goods Only (Default) Approval Signatures:	OK=Services Only Approval Signatures:	OO=Urgent Director or GM Signature:
OB/OX=Blanket –Recurring or Annual Order Approval Signatures:	OS=Emergency GM Signature:	

Sole Source/Proprietary Vendor-Attach Waiver of Competitive Bid Process form signed by Department Director or GM	< \$35,000-Purchase made by Department	≥ \$35,000-Route to Purchasing Department
--	--	---

Purchase Justification:

Budgeted Item	Amount: \$	Suggested Vendor:	Phone/E-mail:
---------------	---------------	-------------------	---------------

Account Number	Quantity	UOM	Description	Unit Cost	Extended Cost

Sales Tax?	
Grand Total	\$

Refer to District Purchasing Manual for detailed procedures. Requisitions for purchases \$2500 and over must be entered into JD Edwards, by Department Designee and include PDF attachment of required back-up, i.e. 3 quotes, waiver of competitive bid process, etc.

PO#:	Vendor:	Order Date:	Required Documentation
------	---------	-------------	------------------------

RESOLUTION NO. 2560

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT FINDING THAT AN EMERGENCY WOULD NOT PERMIT A DELAY RESULTING FROM A COMPETITIVE SOLICITATION FOR SIDEWALK AND ASPHALT REPAIR RESULTING FROM A FIRE HYDRANT BREAK ALONG LIBERTY CANYON ROAD NEAR THE AGOURA ROAD INTERSECTION IN AGOURA HILLS

WHEREAS, on July 11, 2019, a fire hydrant break occurred along Liberty Canyon road near the Agoura Road intersection in Agoura Hills;

WHEREAS, on July 15, 2019, Las Virgenes Municipal Water District staff repaired the fire hydrant break;

WHEREAS, the corrosion break occurred on a buried section of the fire hydrant and caused significant damages to the sidewalk and asphalt pavement, which needed to be removed and replaced in order to mitigate hazardous conditions to the public;

WHEREAS, due to the immediate action required to restore the sidewalk and asphalt pavement, the General Manager authorized an emergency purchase order to complete the necessary work expeditiously and waive the need for public bidding;

WHEREAS, a competitive bidding process is normally required for construction projects involving an amount of \$35,000 or more pursuant to California Public Contract Code §20642;

WHEREAS, one exception to the requirement to give notice for bids to let such contracts is in the case of emergency;

WHEREAS, "emergency" means a sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services (California Public Contract Code §1102);

WHEREAS, in an emergency, the District may, pursuant to California Public Contract Code §22050, repair or replace a public facility, take any directly related and immediate action required, and procure the necessary equipment, services, and supplies for those purposes without engaging in the competitive bidding process; and

WHEREAS, staff recommends that the Board ratify the General Manager's declaration of emergency to perform sidewalk and asphalt pavement repairs to mitigate hazardous conditions to the public.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BOARD OF DIRECTORS OF THE LAS VIRGENES MUNICIPAL WATER DISTRICT AS FOLLOWS:

1. Substantial evidence supports a finding that the above-described circumstances constituted an emergency that would not permit a delay resulting from a competitive solicitation for bids and the above-described actions were necessary to respond to this emergency.

2. The Board ratifies the General Manager's declaration of emergency in response to this incident, including the issuance of a purchase order to R.C. Becker & Sons, in the amount of \$38,466.40, for sidewalk and asphalt pavement repairs on Liberty Canyon Road.
3. The Board shall review these emergency actions at the next Board meeting and, if those actions continue, shall terminate those actions at the earliest possible date that conditions warrant so that the remainder of the emergency actions may be completed by giving notice for bids to let contracts should sufficient time then exist to secure the necessary services.

PASSED, APPROVED, AND ADOPTED this 6th day of August 2019.

Jay Lewitt, President

ATTEST:

Charles P. Caspary, Secretary

APPROVED AS TO FORM:

W. Keith Lemieux, District Counsel



August 6, 2019 LVMWD Regular Board Meeting

TO: Board of Directors

FROM: Finance & Administration

Subject : Financial Analysis and Rate Study: Award

SUMMARY:

On May 16, 2019, the District circulated a Request for Proposals for five-year financial analysis and rate study. Proposals were received from the following firms: Bartle Wells Associates; Municipal & Financial Services Group; Raftelis Financial Consultants, Inc.; and RDN. Staff recommends accepting the proposal from Raftelis Financial Consultants, Inc., based on their extensive experience completing financial analyses and rate studies of similar complexity for comparable water districts.

RECOMMENDATION(S):

Accept the proposal from Raftelis Financial Consultants, Inc., and authorize the General Manager to execute a professional services agreement, in the amount of \$99,171, for preparation of a financial analysis and rate study.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The total cost of the work is \$99,171. Sufficient funds are available for the work in the adopted Fiscal Year 2019-20 Budget.

DISCUSSION:

The District last completed a five-year financial analysis and rate study in 2015. The final rate

adjustment based on the existing study is scheduled to go into effect on January 1, 2020. A new financial analysis and rate study is recommended to establish rates for the next five-year period to ensure the District continue to appropriately recover the cost of its services in compliance with the California Constitution.

On May 16, 2019, the District circulated a Request for Proposals (RFP) for an updated five-year financial analysis and rate study. The scope of work included completion of a cost of services analysis, financial analysis and recommendation of updated rates for potable water, recycled water and sanitation services. The RFP also requested that firms provide recommendations to refine the current water budget setting methodology for commercial accounts, which are currently set at 90% of a three-year average. The current methodology has proved challenging given the turnover of commercial spaces, changes of use and the need to support business growth.

The RFP was sent to known firms providing rate study and financial analysis services and advertised on the California Society of Municipal Finance Officers (CSMFO) and District websites. Four proposals were reviewed and evaluated by a committee consisting of the Director of Finance and Administration, Customer Service Manager, and Finance Manager. The proposals were ranked based on experience; performance on comparable engagements; quality of the firm's professional personnel; quality of the work plan and approach; demonstrated results for projects with similar scopes and cost.

Following is a summary of the four proposals:

Firm	Fee Proposal
Bartle Wells Associates	\$101,600
Municipal & Financial Services Group	\$111,880
Raftelis Financial Consultants, Inc.	\$99,141
RDN	\$79,620

The evaluation committee conducted interviews with the three highest ranked firms following the initial review of the proposal: Bartle Wells Associates, Raftelis and RDN. Based on the committee's evaluation, staff recommends that the Board accept the proposal from Raftelis Financial Consultants Inc. (copy attached), and authorize the General Manager to enter into a professional services agreement for the financial analysis and rate study.

Raftelis has extensive experience in all aspects of the requested scope, including cost of service analyses, financial analyses and the development of budget-based rates. Raftelis also provided the most robust responses during the interview process in regards to an approach to potentially update the water budget setting methodology for commercial customers, which is an important element of the rate study. Raftelis successfully completed the District's 2015 Financial Analysis and Rate Study and updates to the Districts capacity and miscellaneous fees.

GOALS:

Ensure Effective Utilization of the Public's Assets and Money

Prepared by: Donald Patterson, Director of Finance and Administration

ATTACHMENTS:

Proposal by Raftelis Financial Consultants, Inc.
Updated Fee Proposal

Contact Person: Sanjay Gaur
445 S. Figueroa St., Suite 2270
Los Angeles, CA, 90071
Email: sgaur@raftelis.com
Phone: 213.262.9304

Las Virgenes Municipal Water District

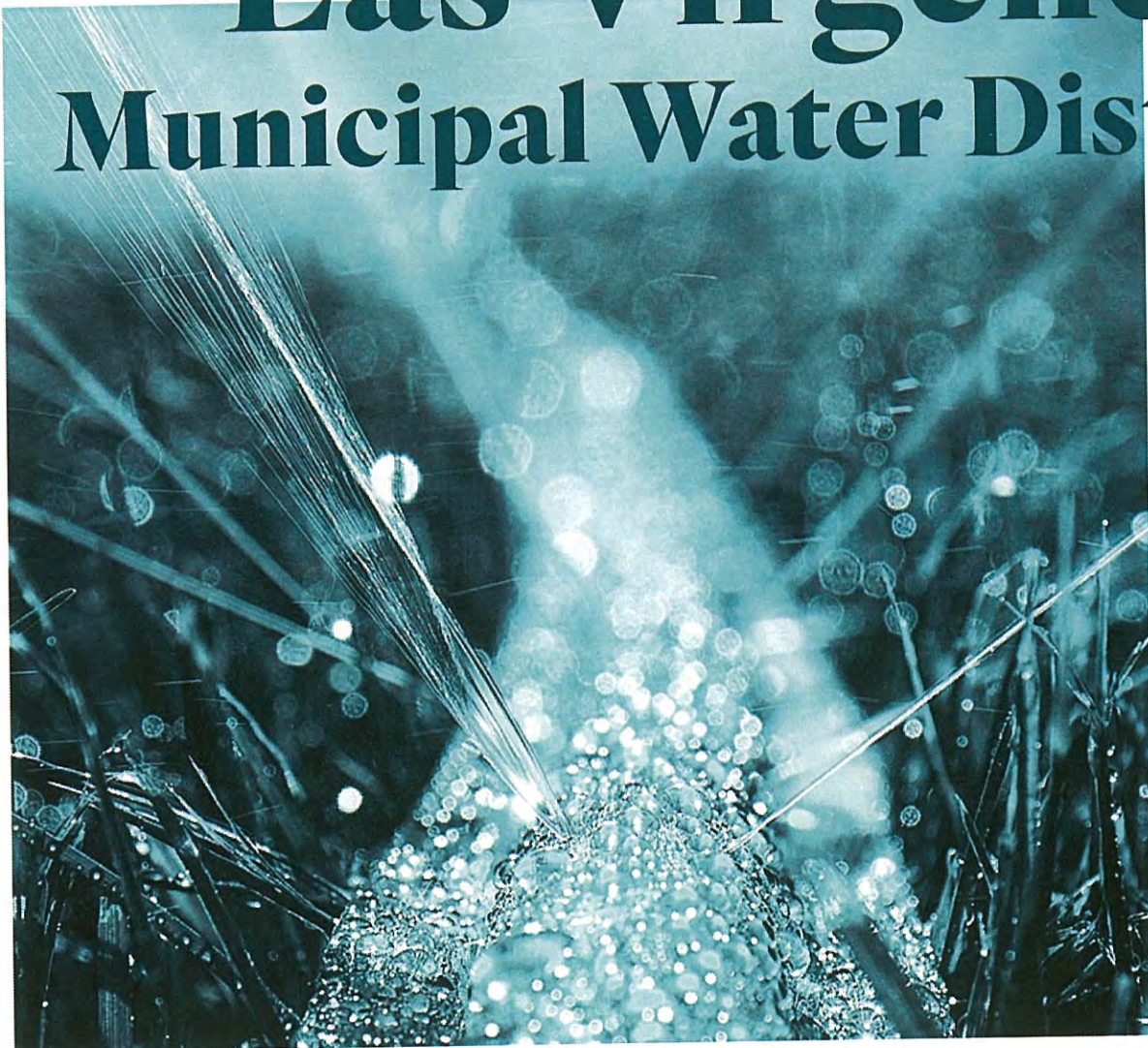




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Costs

Raftelis is registered with the U.S. Securities Exchange Commission (SEC) and the Municipal Securities Rulemaking Board (MSRB) as a Municipal Advisor.

Registration as a Municipal Advisor is a requirement under the Dodd-Frank Wall Street Reform and Consumer Protection Act. All firms that provide financial forecasts that include assumptions about the size, timing, and terms for possible future debt issues, as well as debt issuance support services for specific proposed bond issues, including bond feasibility studies and coverage forecasts, must be registered with the SEC and MSRB to legally provide financial opinions and advice. Raftelis' registration as a Municipal Advisor means our clients can be confident that Raftelis is fully qualified and capable of providing financial advice related to all aspects of utility financial planning in compliance with the applicable regulations of the SEC and the MSRB.



June 17, 2019

Mr. Donald Patterson
Director of Finance and Administration
Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 91302

Subject: Proposal for Financial Analysis and Rate Study

Dear Mr. Patterson:

Raftelis is pleased to present this proposal to assist Las Virgenes Municipal Water District (District) in conducting a water, sanitation (wastewater), and recycled water financial analysis and rate study. Raftelis has one of the largest practices in California and the country, specializing in financial and rate consulting for water, recycled water, and wastewater utilities. We are confident in our ability to develop a sustainable financial plan and optimal rate structure for each utility that will comply with Proposition 218 and other regulatory requirements, in addition to meeting the District's goals. We have assisted numerous agencies in California and across the United States with successfully implementing rate structures that fund capital infrastructure plans, with sensitivity to agencies' other policy concerns, such as meeting revenue requirements during periods of reduced consumption. We have conducted many similar studies, including for Western Municipal Water District, El Toro Water District, the City of Camarillo, and the City of Thousand Oaks.

Raftelis has assembled an experienced team to assist the District with this project. I, Sanjay Gaur, will serve as Project Manager and will ultimately be responsible for the project's success to your satisfaction. I have 20 years of public-sector consulting experience and have worked on over 200 rate studies throughout California in all aspects. I am widely considered in the industry to be one of the leading experts in the evaluation, development, and implementation of water budget-based rate structures and have conducted numerous such studies throughout the state. I have also authored a chapter about water budget rate structures in *Manual M1: Principles of Water Rates, Fees and Charges, 7th Edition* (Manual M1) and contributed to *Water Rates, Fees, and the Legal Environment, 2nd Edition*, published by the American Water Works Association (AWWA). Kevin Kostiuk will provide a critical review of the methodology and results and serve as Technical Reviewer. Mr. Kostiuk has 11 years of professional experience with a focus is in water cost of service, drought rate modelling, water budget rate structures, and groundwater fee analysis. Charles Diamond will serve as the Lead Consultant, conducting the data analyses to build the model. Staff consultants from our Los Angeles and Murrieta offices will assist us in conducting analyses and preparing project deliverables.

I have read, understood, and agree to all statements in this request for proposals and acknowledge receipt of all addendums/ amendments as well as to the terms, conditions, and attachments referenced. Raftelis is committed to perform this study within the 18-month time period specified and understands that our proposal is a firm and irrevocable offer for 90 days.

Raftelis is proud of the team and resources we can offer the District on this important engagement. If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sanjay Gaur'.

Sanjay Gaur
Vice President
Office: 213 262 9304 / Mobile: 213 327 4405 / Email: sgaur@raftelis.com

445 S. Figueroa Street
Suite 2270
Los Angeles, CA 90071

WWW.RAFTELIS.COM

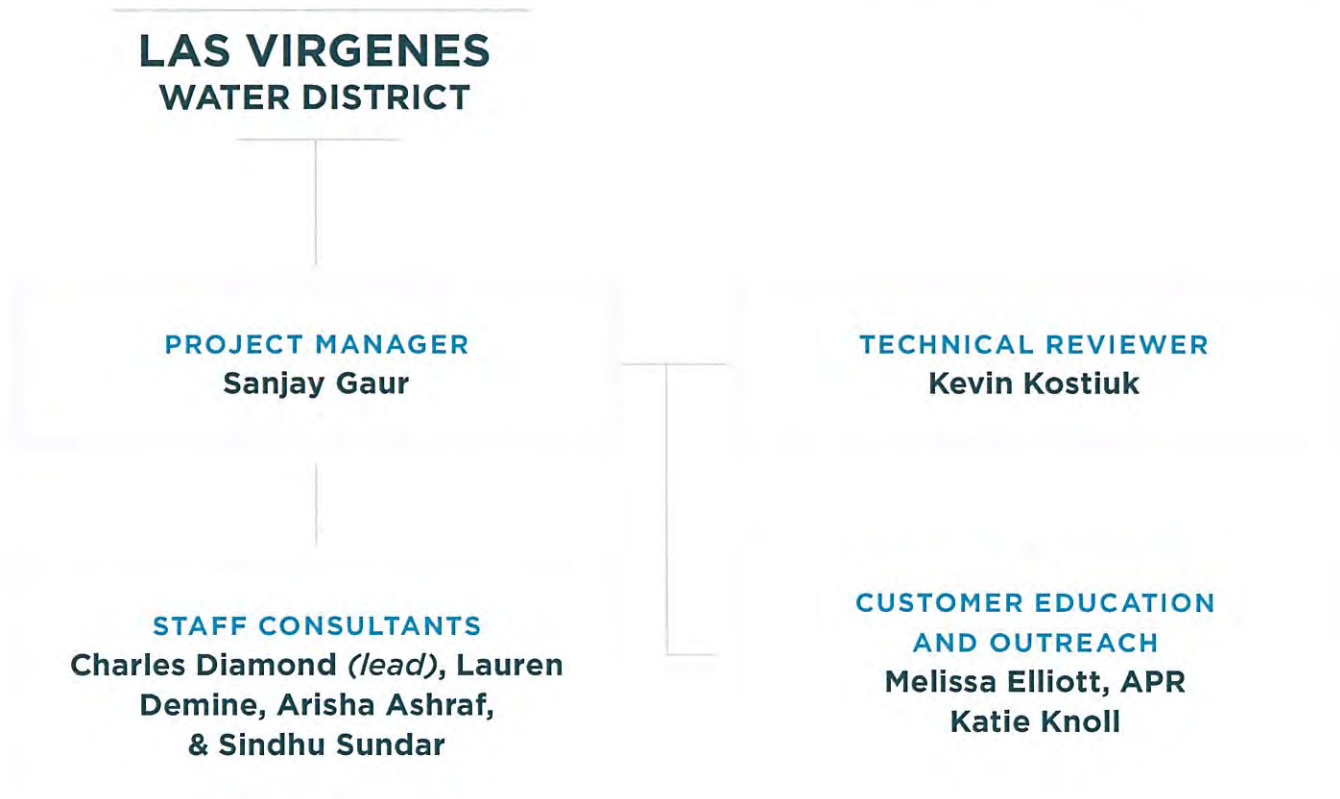
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Key Personnel

WE HAVE DEVELOPED A TEAM OF CONSULTANTS WHO SPECIALIZE IN WATER BUDGER RATES THAT WILL BE CRITICAL TO THE SUCCESS OF THE DISTRICT’S PROJECT.

Our team includes senior-level professionals to provide experienced project leadership, with support from talented consulting staff. This close-knit group has frequently collaborated on similar successful projects, providing the District with confidence in our capabilities.

Here, we have included an organizational chart showing the structure of our Project Team. On the following pages, we have included brief profiles and project roles for each of our team members along with detailed resumes.





Leading the industry

Raftelis staff shape industry standards for water and wastewater utility finance and management through our active leadership in AWWA, WEF, and EPA. Raftelis' staff includes:

AWWA

- Asset Management Committee - 1 member
- Benchmarking Committee - 1 member
- Finance, Accounting, and Management Controls Committee - 2 members
- Management and Leadership Division - Chair and Vice Chair
- Public Affairs Council - Chair
- Rates and Charges Committee - Chair and 7 members
- Strategic Management Practices Committee - Chair
- Technical and Education Council - 1 Trustee

WEF

- Finance and Administration Subcommittee - Chair
- Technical Practices Committee - 1 member
- Utility Management Committee - 4 members
- WEFTEC Conference Planning Committee - 1 member

EPA

- Environment Financial Advisory Board - 1 member



We wrote the book

Raftelis staff have co-authored many of the industry's leading guidebooks regarding water and wastewater financial and management issues.

- Affordability of Wastewater Service (WEF)
- Financing and Charges for Wastewater Systems, Manual of Practice 27 (WEF)
- Manual M1, Principles of Water Rates, Fees and Charges (AWWA)
- Manual M5, Water Utility Management (AWWA)
- The Effective Water Professional (WEF)
- Water and Wastewater Finance and Pricing: The Changing Landscape
- Water and Wastewater Rate Survey (conducted and published collaboratively with AWWA and Raftelis)
- Water Rates, Fees, and the Legal Environment (AWWA)
- Solid Waste Rate Setting and Financing: Guide Analyzing Cost of Services and Designing Rates for Solid Waste Agencies (AWWA)



PROJECT MANAGER

Sanjay Gaur

Vice President

PROJECT ROLE

Will manage the day-to-day aspects of the project and will lead consulting staff in conducting analyses and preparing deliverables for the project. He will be available for all in-person meetings and will serve as the main point of contact.

CAREER HIGHLIGHTS

- 20 years of experience
- Co-author of: AWWA’s *M1 Manual*; AWWA’s *Water, Rates, Fees, and the Legal Environment*; & *Water and Wastewater Finance and Pricing*
- Financial/rate consulting experience with Las Virgenes Municipal Water District, East Bay Municipal Utility District, Thousand Oaks, Long Beach, Huntington Beach, & Trabuco Canyon Water District



TECHNICAL REVIEWER

Kevin Kostiuik

Manager

PROJECT ROLE

Will provide a critical review of the methodology and results.

CAREER HIGHLIGHTS

- 11 years of experience
- Financial/rate consulting experience with Camarillo, Redlands, San Jose, East Valley Water District, Goleta Water District, Placer County Water Agency, Soquel Creek Water District, Summerland Sanitary District, & Mid-County Groundwater Sustainability Agency



LEAD CONSULTANT

Charles Diamond

Consultant

PROJECT ROLE

Will serve as lead consultant in conducting analyses and preparing deliverables for the project.

CAREER HIGHLIGHTS

- 3 years of experience
- Financial/rate consulting experience with Brentwood, Dixon, Sonoma, Rancho California Water District, & La Cañada Irrigation District



STAFF CONSULTANT

Lauren Demine

Consultant

PROJECT ROLE

Will work at the direction of Mr. Gaur in conducting analyses and preparing deliverables for the project.

CAREER HIGHLIGHTS

- 12 years of experience
- Financial/rate consulting experience with Helix Water District, Lake Hemet Municipal Water District, Leucadia Wastewater District, Monterey County Water Resources Agency, & City of Sierra Madre



STAFF CONSULTANT

Arisha Ashraf

Consultant

PROJECT ROLE

Will work at the direction of Mr. Gaur in conducting analyses and preparing deliverables for the project.

CAREER HIGHLIGHTS

- 12 years of experience
- Skills: Software: R, Stata, Microsoft Excel VBA, ArcGIS, MySQL / Methods: Logistic Regression, Multi-level Analysis, Cluster Analysis, Survival Analysis
- Professional experience with California Data Collaborative, UC Riverside Environmental Sciences Department, World Resource Institute, & The Galilee Society, Shefa-Amr, Israel



STAFF CONSULTANT

Sindhu Sundar

Associate Consultant

PROJECT ROLE

Will work at the direction of Mr. Gaur in conducting analyses and preparing deliverables for the project.

CAREER HIGHLIGHTS

- Background in environmental economics and business intelligence
- Developed econometric models for economic behavior and consumption patterns for UC Berkeley and LegalZoom, Inc.



**CUSTOMER EDUCATION
AND OUTREACH**

**Melissa
Elliott APR**

Director of Strategic
Communication Services

PROJECT ROLE

Will assist the Project Team in crafting a strategic communication plan if needed.

CAREER HIGHLIGHTS

- 20 years of experience
- AWWA President-Elect; Former Public Affairs Council Chair
- Former Manager of Public Relations at Aurora Water
- Former Manager of Water Conservation and Director of Public Affairs at Denver Water



**CUSTOMER EDUCATION
AND OUTREACH**

**Katie
Knoll**

Senior Consultant

PROJECT ROLE

Will assist the Project Team in crafting a strategic communication plan if needed.

CAREER HIGHLIGHTS

- 15 years of experience in public relations and communication
- Former Community Relations Manager for Denver Water, and former Public Involvement Unit Manager for Colorado Parks and Wildlife



Sanjay Gaur

Project Manager

Vice President

TECHNICAL SPECIALTIES

- Proposition 218 rate compliance
- Financial analysis
- Cost of service studies
- Conservation rate structure design
- Capacity fee studies
- Cost benefit analysis
- Econometric analysis

PROFESSIONAL HISTORY

- Raftelis: Vice President (2015-present); Senior Manager (2012-2014); Manager (2009-2012)
- Red Oak Consulting, Division of Malcolm Pirnie (2007-2009)
- MuniFinancial (2005-2006)
- A & N Technical Services (1999-2003)
- United States Peace Corps, Bulgaria (1995-1997)

EDUCATION

- Master of Public Administration, Public Administration/International Development, Kennedy School of Government - Harvard University (2003)
- Master of Science, Applied Economics - University of California, Santa Cruz (1994)
- Bachelor of Arts, Economics and Environmental Studies - University of California, Santa Cruz (1992)

PROFESSIONAL RECOGNITION

- Who's Who in America, 63rd Edition (2009)
- Finalist, National Venture Competition (2003); Goldman Sachs Foundation
- Roy Environmental Fellowship (2002), Kennedy School of Government, Harvard University
- Academic Scholarship (2001-2003), Kennedy School of Government, Harvard University
- Certificate of Outstanding Service (1997), United States Peace Corps

PROFESSIONAL MEMBERSHIPS

- American Water Works Association - Rates and Charges Committee
- California Society of Municipal Finance Officers

Mr. Gaur has over 20 years of public-sector consulting experience, primarily focusing on providing financial and rate consulting services to water and wastewater utilities. His experience includes providing rate structure design, cost of service studies, financial analyses, cost benefit analysis, capacity fee studies, conservation studies, and demand forecasting for utilities spanning the west coast. He has provided consulting service to over 100 different agencies. Mr. Gaur is considered one of the leading experts in developing rates that meet Proposition 218 requirements, has exceptional public speaking skills and, due to these qualities, he is often sought out to provide assistance on rate studies that are complex and controversial. He has often provided his insight into utility rate and conservation-related matters for various publications and industry forums including: authoring articles in *Journal AWWA*; being quoted in various newspaper articles including the *Los Angeles Times* and the *New York Times*; participating in a forum regarding the future of water in Southern California sponsored by the Milken Institute; being quoted on National Public Radio; speaking at various industry conferences including American Water Works Association (AWWA), the Utility Management Conference, Association of California Water Agencies, and California Society of Municipal Finance Officers; and, co-authoring several industry guide books including AWWA's *Manual M1 Principles of Water Rates, Fees and Charges*, 7th Edition as well as AWWA's *Water Rates, Fees, and the Legal Environment*, Second Edition. Mr. Gaur co-authored a chapter entitled, "Understanding Conservation and Efficiency Rate Structures," for the Fourth Edition of the industry guidebook, *Water and Wastewater Finance and Pricing: The Changing Landscape*. Mr. Gaur is also active in a number of utility-related associations, including serving as a member of AWWA's Rates and Charges Committee.

RELEVANT PROJECT EXPERIENCE

Las Virgenes Municipal Water District (CA)

Since 2008, Mr. Gaur has provided financial and rate consulting services to Las Virgenes Municipal Water District. This include assisting the District in adopting a controversial rate increase, the evaluation and implementation of a water budget rate structure, capacity fees for water and wastewater services, and other financial related matters. The District receives water from only one source, Metropolitan Water District of Southern California. With the desire to implement a water budget tiered rate, Mr. Gaur assisted the District in establishing tiered rates that meet the requirements of Proposition 218.

Alameda County Water District (CA)

Mr. Gaur has provided financial and rate consulting experience to Alameda County Water District since 2010. During these years, Mr. Gaur has been the Project Manager on numerous studies, including the evaluation of different types of conservation rates, development of a 25-year financial model that assists the District in evaluating different financial risks, development of drought rates, and public outreach to stakeholders. During these projects, Mr. Gaur has led a series of workshops with the Executive Management and the Board of Directors in evaluating and identifying which financial/rate solutions meet their objectives.

East Bay Municipal Utility District (CA)

Since 2013, Mr. Gaur has provided consulting services to East Bay Municipal Utility District. He successfully accomplished several objectives for the District and served as the Project Manager for a comprehensive water and wastewater cost of service study. The last comprehensive cost of service study was done in 2000. As part of the study, Raftelis thoroughly examined the District's cost structure, analyzed water and wastewater flow and customers data, and evaluated alternative rate structures to develop an equitable rate structure that meets Proposition 218 requirements and the District's goals and objectives. One of the key deliverables was the administrative record, which is a document that clearly explains how the rates are derived and is a critical document to support the requirements of Proposition 218.

Castaic Lake Water Agency (CA)

Castaic Lake Water Agency is a wholesale water agency that is a member of the State Water Contractor. Since 2012, Mr. Gaur has provided numerous consulting services including the evaluation of different types of wholesale rates, a financial model, annexation fees, capacity fees, and other financial consulting services. Mr. Gaur has made numerous presentations to the Board of Directors and has secured their supports on critical matters.

San Juan Capistrano (CA)

In 2012, San Juan Capistrano was in the midst of a legal lawsuit over its water rates. A group of taxpayers sued the City over its water rates, saying they did not comply with Proposition 218. The City sought out an expert rate consultant to assist them in developing new rates that will meet the stringent requirements of the taxpayer group and City Council. The City hired Raftelis and Mr. Gaur served as the Project Manager for this significant project. The project required a series of six City Council Workshops, with each one lasting over 3 hours. In addition, two members of the City Council were active in supporting the lawsuit against the City. Mr. Gaur was successful in mustering support for the new rates and developing the new standard associated with the administrative record. The rates were approved and the President of the Taxpayer association expressed his support of the new rates.

City of Long Beach (CA)

In 2016, the City of Long Beach hired Raftelis in conducting a comprehensive rate study that meets the heightened standard associated with Proposition 218. Given the large percentage of the population at the poverty rate, the City was concerned about affordability, revenue stability due to the recent drought, and developing a strong nexus associated with its water and wastewater rates. Mr. Gaur served as the Project Manager and successfully assisted the City in adopting rates that meet their requirements. Since then, Mr. Gaur has provided financial and rate consulting services to the City, including how to fund stormwater services.

Fallbrook Public Utility District (CA)

Fallbrook Public Utility District provides water, recycled water, and wastewater services. The District has a complex rate structure due to the fact that it provides both domestic service, special agricultural rates from the San Diego County Water Authority,

normal agricultural service, and a combination of these services to the same meter. Given the recent lawsuit associated with San Juan Capistrano, the District was interested in developing a comprehensive rate study that can fund a new source of water supply and cost of service rate study that can justify the different types of rates. In 2016, Mr. Gaur served as the Project Manager on this study and was successful in developing a 180-page administrative record that clearly explains the nexus requirement associated with Proposition 218 and the adoption of the five years of rates.

Placer County Water Agency (CA)

Placer County Water Agency provides four major types of water services: treated retail, untreated retail, treated wholesale, and untreated wholesale. Given the complexity of the system, the agency has over 50 different types of rates. The agency has evolved over the last 60 years of existence and has acquired numerous neighboring agencies. Given the San Juan Capistrano ruling, the Agency was interested in consolidating and developing a clear rationale behind the complex services it provides. The Agency sought out Mr. Gaur to be the Project Manager on this significant study in redeveloping all the different water rates. Mr. Gaur conducted a series of workshops with Executive Management in developing a rationale and logic behind the services it provides. The 150-page administrative record was well received by the Board of Directors and they were pleased with this study. The new rates were approved in 2017.

Santa Cruz (CA)

Since 2012, Mr. Gaur has provided financial and rate consulting services to the City of Santa Cruz. This includes developing a financial model that can evaluate different water demand factors and associated drought rates, reserve policies, a comprehensive rate study, drought rates, capacity fees and other financial/rate matters. The drought rates study was particularly complex. The City experienced a significant drought and had to allocate water. Water use was already at a historical low level and residential water use was one of the lowest in California. With the desire of refunding a debt and low commodity revenues sales, the City needed to adopt drought rates within a short time period. Mr. Gaur was successful in adopting 5 stage drought rates and was able to assist the City in at this critical time. Lastly, Mr. Gaur assisted the City in redeveloping its rate structure so that it would meet the values of the community, while remaining financially sustainable as well as meeting the requirements of Proposition 218.

Rancho California Water District (CA)

Mr. Gaur has provided consulting services to Rancho California Water District since 2007. During this time, he has assisted the District in the development of a water budget rate structure. The project required the consultant to develop a flexible water budget model that could determine multiple blocks widths and allocations. The team was successfully able to accomplish this task and assisted the District in implementing the new water budget rate structure. The rates were successfully adopted in November 2009.

Mr. Gaur also assisted the District in the development of a New Water Demand Offset Fee. The New Water Demand Offset Program

is a form of funding for conservation measures that will help to create sustainable, zero water footprint development. New developments will pay fees called New Water Demand Offset Fees to create potable water savings in the existing system, support water demand generated by new developments. Water savings can be achieved by converting irrigation accounts to recycled water or installing high efficiency retrofits to replace inefficient fixtures for existing accounts in the District. Lastly, Mr. Gaur has provided consulting services on Capacity Fee studies and updating water rates.

Western Municipal Water District (CA)

Since 2009, Mr. Gaur has provided consulting services to Western Municipal Water District. Mr. Gaur successfully accomplished several objectives for the District including the implementation of water budget rates, which included facilitating and leading a discussion on the policy options associated with the development of water budget rates. Based on these policy options, a water budget model was developed that evaluated different allocation factors for indoor and outdoor water use, determined rate components for the corresponding tiers, and developed the corresponding rates and customer impacts.

In addition, Mr. Gaur served as the Project Manager for the development of a financial model for the District. The model has the capability of examining the 14 different fund centers of the District, develop and save different Capital Improvement Plan scenarios, examine the financial consequences of these scenarios and compare the results. In addition, the model has the ability aggregate the fund centers by water, wastewater, or by the whole District. The model is currently being utilized by the District to examine long term health of the District.

Lastly, Mr. Gaur conducted a Capacity Fee study for the District, which included water, wastewater, and recycled water. The prior Capacity Fee was outdated and significant changes were required. This study included public outreach to the Business Industry Association. Since then, Mr. Gaur has provided assistance to the District in updating its water rates and developing the administrative record required.

RECENT PROJECT EXPERIENCE

- American Water Company (CA) - Water Rate Study
- Borrego Water District (CA) – Financial Planning Study, Groundwater Sustainability Plan, Water Rate Study, and Basin Management Evaluation
- City of Calexico (CA) - Water and Sewer Rate Study
- City of Camarillo (CA) – Water and Wastewater Rate Study, Financial Plan Study, and Cost of Service Study,
- Carpinteria Sanitary District (CA) – Sewer Rate and Fee Study
- Central Basin Municipal Water District (CA) – Financial Plan
- City of Chino (CA) – Water Budget Rate Design, Financial Plan Study and Cost of Service and Rate Design
- City of Chowchilla (CA) – Water and Wastewater Rate Study
- Coastside County Water District (CA) – Water Rate Study
- Contra Costa Water District (CA) – Financial Plan Study, Water Rate Study and Drought Rates Study
- City of Corona (CA) – Water Budget Rate Study, Wastewater Capacity Fees Study
- Cucamonga Valley Water District (CA) – Financial Plan, Water Conservation Rate Study, and Drought Rates
- Eastern Municipal Water District (CA) – Water Budget Study and Financial Plan Study
- East Orange County Water District (CA) - Water Budget Study, Sewer Capacity Fees Study, and Financial Plan Study
- Elsinore Valley Municipal Water District (CA) – Financial Model, Drought Rate Analysis, Water and Recycled Water Rate Study, Capacity Fee Study, and Wastewater Rate Study
- El Toro Water District (CA) – Water Budget Study and Recycled Water Financial Plan Study
- City of Escondido (CA) – Water and Wastewater Rate Study and Capacity Fees Study
- City of Glendora (CA) – Water Budget Feasibility Study
- City of Gridley (CA) – Water Rate Study
- Helix Water District (CA) – Water Rate and Cost of Service Study
- Hi-Desert Water District (CA) – Water Rate Study
- City of Hollister (CA) - Sewer Rate and Impact Fee Study, Water Rates Study, and Capacity Fee Study
- City of Huntington Beach (CA) - Sewer Rate Study, Water Budget Rate Study, and Financial Plan Study
- Imperial County Gateway County Service Area(CA) – Water and Wastewater Rate Study
- Indio Water Authority (CA) - User Fee Study and Water Rate Study
- Inland Empire Utilities Agency (CA) – Conservation Rate Structure Workshop and Financial Plan Study
- Inyo County Water Department (CA) – Water Rate Study
- Irvine Ranch Water District (CA) - Conservation Study
- Jurupa Community Services District (CA) – Water Budget Study
- La Habra Heights County Water District (CA) – Wheeling Rate Study and Financial Plan Study
- La Puente Valley County Water District (CA) – Water Rate and Fee Study
- City of Livermore (CA) – Water Cost of Service Study
- City of Livingston (CA) - Water Rate Study
- City of Lomita (CA) - Water Rate Workshop
- Los Alamos Community Services District (CA) – Water and Wastewater Rate Study
- Los Angeles Department of Water and Power (CA) - Daily Demand Estimates
- City of Lynwood (CA) - Cost Allocation Plan
- City of Malibu (CA) – Wastewater and Recycled Water Rate Study
- Mammoth Community Water District (CA) – Water Rate Study
- City of Merced (CA) - Water and Sewer Rate and Impact Fee Study
- Mesa Consolidated Water District (CA) – Financial Plan Study, Cost Comparison Study, Water and Recycled Water Cost of Service and Rate Design Study

- Metropolitan Water District of Southern California (CA) – Drought Allocation Model, Long Range Financial Plan, and Cost of Service Evaluation
- Mill Valley – Tamalpais Community Services District (CA) – Financial Plan Study
- Mojave Water Agency (CA) – Financial Plan Study, Financial Impact Analysis for Water Exchange and Leasing Programs and Water Reliability Rate Development
- Modesto Irrigation District (CA) – Stormwater Fee Study
- Monterey Peninsula Water Management District (CA) - Water Budget Study
- Municipal Water District of Orange County (CA) - Conservation Potential Study and Rate Study
- City of Newport Beach (CA) – Water Rate Study
- City of Palo Alto (CA) – Water Cost of Service and Rate Study
- Pasadena Water and Power (CA) - Water Cost-of-Service and Rate Design Study
- City of Pomona (CA) – Rate Study
- City of Port Hueneme (CA) - Water and Solid Waste Rate Study
- City of Orange (CA) – Water and Sanitation Rate Study
- City of Reno (NV) – Wastewater Rate Study
- City of Rio Vista (CA) - Water and Sewer Rate and Impact Fee Study
- Salton Community Services District (CA) – Sewer Rate Study
- City of San Clemente (CA) – Water and Wastewater Rate Study
- San Diego County Water Authority (CA) - Indexing Model and Wholesale Water Rate
- City of San Juan Capistrano (CA) – Water Rate Study
- Santa Clara Valley Water District (CA) - Project Evaluation - Water Conservation Project
- Santa Clarita Water District (CA) – Retail Water Rate Study
- City of Santa Cruz (CA) - Financial Plan, Water Budget Feasibility Analysis, Cost of Service and Rate Study, Drought Rate Study, Capacity Fees Update and Water Demand Offset Fees Analysis, and Alternative Water Supply Feasibility Analysis
- Scotts Valley Water District (CA) – Water and Recycled Water Rate Study
- City of Shasta Lake (CA) – Water Rate Study and Water and Wastewater Capacity Fee Study
- City of Sierra Madre (CA) – Water and Sewer Rate Study
- City of Signal Hill (CA) – Water Rate and Cost of Service Study
- City of Simi Valley (CA) – Sewer Rate Study
- Soquel Creek Water District (CA) – Water Rate Structure Study
- South Coast Water District (CA) – Water Budget Assessment
- South Mesa Water Company (CA) – Rate Structure and Recycled Water Rate Study
- City of South Gate (CA) - Water Impact Fee
- Sunnyslope County Water District (CA) – Water Rates and Capacity Fees
- Temescal Valley Water District (CA) – Water and Sewer Rate Study and Capacity Fee Study
- Trabuco Canyon Water District (CA) – Water Rate Study
- City of Thousand Oaks (CA) – Water and Wastewater Cost of Service and Financial Plan Study
- City of Ventura (CA) – Water and Wastewater Rate Study
- City of Vista (CA) - Sewer Rate and Connection Fee Study
- Walnut Valley Water District (CA) - Water Rate Study
- City of Watsonville (CA) – Utility Enterprise Rate Study
- Yorba Linda Water District (CA) - Sewer and Water Budget Rate Study, Financial Plan Study, and Cost of Service Rate Study
- Zone 7 Water Agency (CA) – Cost of Services Study and Water Rate Study Update

PUBLICATIONS

- Gaur, S., Magu, D. “California Water Rate Trends: Maintaining Affordable Rates in a Volatile Environment”, Journal – American Water Works Association, September 2017, Volume 109, Number 9.
- Contributing Author to “M1 Principles of Water Rates, Fees and Charges” 7th Edition, American Water Works Association, 2017.
- Gaur, S., Giardina, R.D., Kiger, M.H., Ziebertz, W., “Committee Report: Ripples from the San Juan Capistrano Decision,” Journal – American Water Works Association, September 2016, Volume 108, Number 9.
- Gaur, S., Alikhan, A., Kostiuk, K. “The Drought is over – Now is the time to develop drought rates”, CSMFO Magazine, July 1, 2016.
- Gaur, S., Alikhan, A., Crea, J. “Developing Drought Rates: Why Agencies Should Prepare for a Not-So-Rainy Day”, January 2016, Volume 108, Number 1.
- Gaur, S., Isaac, Habib “There’s Opportunity in the San Juan Capistrano Rates Decision”, Source California-Nevada Section AWWA, Fall 2015, Volume 29, Number 4.
- Gaur, S., Atwater, D., “California Water Rate Trends,” Journal – American Water Works Association, January 2015, Volume 107, Number 1.
- Contributing Author to “Water and Wastewater Finance and Pricing: The Changing Landscape”, 4th Edition, 2015, CRC Press, Editor: George Raftelis.
- Gaur, S., Atwater, D., Cruz, J., “Why do Water Agencies need Reserves?”, Journal – American Water Works Association, November 2014, Volume 106, Number 11.
- Gaur, S., Atwater, D., Lee, J., “Conservation Rates Offer Options,” CA/NV Section of American Water Works Association, Spring 2014, Volume 28, Number 2.
- Gaur, S., Lim, B., Phan, K., “California Water Rate Trends,” Journal – American Water Works Association, March 2013, Volume 105, Number 3.
- Contributing Author to “Water Rates, Fees and the Legal Environment”, 2nd Edition, American Water Works Association, 2010 Editor: C.(Kees) W. Corssmit.
- Hildebrand, M. Gaur, S. and Salt, K. “Water Conservation Made Legal: Water Budgets and California Law”, Journal of American Water Works, 101:4 April 2009, p.85-89.
- Gaur, S. “Policy Objectives in Designing Water Rates”, Journal of American Water Works, 99:5 May 2007, p.112- 116.
- Gaur, S., “Adelman and Morris Factor Analysis of Developing Countries”, The Journal of Policy Modeling, Vol. 19, Issue 4, pp. 407-415, August 1997.



Kevin Kostiuik

Technical Reviewer
Senior Consultant

SPECIALTIES

- Water and Drought rate design
- Water budget rate structures
- Utility cost of service
- Data analysis
- Environmental Policy Analysis

PROFESSIONAL HISTORY

- Raftelis: Consultant (2014-2015); Senior Consultant (2014-present)
- Turner New Zealand, Inc.: Director of Operations (2009-2012); Accounting Manager (2007-2009)
- Lesley, Thomas, Schwarz & Postma, Inc.: Staff Accountant (2007)

EDUCATION

- Master of Environmental Management – Duke University (2014)
- Bachelor of Arts in Business-Economics and History – University of California, Santa Barbara (2006)

Mr. Kostiuik has a background in economics and accounting and possesses extensive analytical skills. His expertise lies in water resources management, environmental economics, environmental policy, and federal water supply and flood control policy. Mr. Kostiuik is a member of the American Water Works Association (AWWA) Young Professionals and the Young Professionals Summit Committees in conjunction with the AWWA Utility Management Conference (UMC). He has authored an article on potable reuse in Journal AWWA discussing the treatment, financing structures, and pricing of treated water at advanced purification treatment plants; an article on municipal water demand pattern changes during the recent State-wide drought; and an article on proactive financial planning in times of drought for California Society of Municipal Finance Officers (CSMFO) Magazine. Most recently Mr. Kostiuik presented at the AWWA UMC discussing a recent evaluation of the conceptual CustomerSelect rate model for Soquel Creek Water District.

RELEVANT PROJECT EXPERIENCE

City of San Jose (CA)

Raftelis contracted with the City in 2016 to perform a cost of service and rate study for the City's water enterprise. The study included creation of a 10 year financial plan model, cost of service analysis, and redesign of the City's water rate structures. Mr. Kostiuik as Lead Analyst developed the financial plan model and worked closely with City staff to incorporate the City's budgetary information as part of the planning exercise. Additionally, Mr. Kostiuik worked with the City's water resources manager and water system engineer to identify future supply and demand in each of the City's different service areas, with differentiated water rates for each area. At the conclusion of the Study Mr. Kostiuik held a session to train staff on use of the electronic financial plan model. The project was completed in 2017.

Santa Cruz Mid-County Groundwater Agency (CA)

Raftelis was contracted by the Agency to evaluate funding criteria for Groundwater Sustainability Agency (GSA) fees and calculate preliminary fees. Mr. Kostiuik served as the Project Manager. Raftelis conducted multiple meetings and webinars with County staff and the Advisory Committee to produce a financial budget for management activities, discuss fee structure options, and develop a pricing objectives exercise for the GSA Board. The project culminated with fee analysis and production of a White Paper to assist the Agency in navigating their financing plan as part of the GSP submittal process, as well as recovering costs of management over the long term. The project is complete as of May 2019.

Crescenta Valley Water District (CA)

Mr. Kostiuik developed a combined water and sewer financial plan and rate model for the District in 2016. The cost of service and rate study included several workshops with the District Board which culminated in structural changes to the District's existing water and sewer rate structures. In addition to the tiered water rate structure, which was ultimately adopted, Mr. Kostiuik developed a water budget rate model for evaluation by District staff and the District Board.

Prior to the cost of service and rate study, Mr. Kostiuk performed an economic analysis for the District to determine the feasibility of offsetting imported water supply with the production of local groundwater. Mr. Kostiuk created a customized model for the District to use under different scenarios of capital requirements, lease options, and contract lengths. As part of the study, he reviewed the District’s prior consultant’s work, determined internal rates of returns, calculated the net present value of District savings, and determined the cost at which the District should lease water rights for groundwater production.

East Valley Water District (CA)

Raftelis contracted with East Valley Water District in 2014 to develop budget based rates to replace the District’s existing uniform rate structure. Mr. Kostiuk assisted the District with design and implementation of budget-based water rates for their 23,000 accounts including residential, commercial and irrigation customers. The study included creation of a long-term financial plan and full cost of service study for the water enterprise. Mr. Kostiuk developed the 10 year financial plan model, rate model, and water budget model for the District.

Mr. Kostiuk worked closely with the District’s finance, IT, and, billing departments in the early stages to analyze customer account level data including monthly use. He also worked with the District’s GIS and other outside consultants to develop the water budget model using irrigable landscape area, customer class, assessor parcel number (APN), etc. for construction of indoor and outdoor allocations, or budgets.

The project incorporated significant public outreach whereby Raftelis led meetings with ratepayers to receive input, provide Study updates, and answer questions of the public. The ratepayer meetings assisted adoption of the new rate structure and implementation. The rate structure that the Board adopted allows for the most precise, scientific and equitable design of rate structures, tailored specifically to an individual account.

Goleta Water District (CA)

Mr. Kostiuk completed a full water cost of service study for the District which included design of inclining tiered rates for their single-family residential class, as well as agricultural rates for two classes. Complexities in customer classes’ access to District water supplies, interruptibility during times of drought, and benefit (or lack thereof) from treatment made the analysis unique and challenging. The study included development of a long term financial plan model, rate model, and corresponding bill impacts.

To achieve the District’s demand reduction targets as outlined in their Drought Management Plan, the District wished to explore drought rates/drought surcharges to curb demand. Ultimately, Mr. Kostiuk developed three options of revenue neutral drought surcharges for the Board’s consideration. These various options ranged from targeted surcharges on an inter and intra-class basis, to a surcharge applied to non-drought commodity rates, to a uniform commodity surcharge irrespective of customer class or

use. The proposed rates and drought surcharges were adopted and implemented July 1, 2015.

City of Redlands (CA)

Mr. Kostiuk updated prior financial plans developed by Raftelis for the City for their water and sewer enterprises. The update included building in more flexibility to the model for ease of use and for future updates, as well as, making the model dashboards more user friendly.

The state-wide drought in California called for a mandatory 25% reduction for all water service agencies in the state. The City’s target was to reduce residential consumption by 35%. Mr. Kostiuk assisted the City in design and implementation of drought surcharges to achieve a 35% reduction and to recover lost revenue from reduced water sales.

Additional work for the City included updating the City’s Storm Drain Impact Fee and miscellaneous fee for NPDES inspections as part of the MS4 permit requirement. The storm drain fee had not been reevaluated in 20 years. Additionally, the City had recently completed a Storm Drain Master Plan which called for \$83 million in improvements to system deficiencies. Mr. Kostiuk developed a methodology to retain the existing impact fee structure while updating the fee paid by different land use classes.

In 2015 and 2016 Mr. Kostiuk developed a water budget rate model for the City to evaluate a new rate structure. The model integrated with the existing water financial plan model and designed parallel water budget rates for consideration by City staff and the Council.

City of Camarillo (CA)

Raftelis has provided rate consulting services to the City for the past seven years with Mr. Kostiuk serving as lead analyst the past three years. In the current rate cycle Mr. Kostiuk serves as Project Manager. The City adopts rates on a two-year cycle and the most recent Study included rebuilding long term financial plan models, revising the wastewater utility’s rate structure, and performing a cost of service analysis for the sewer utility. Mr. Kostiuk has made presentations to the City Manager, City’s Utility Committee, and City Council in consecutive years. Mr. Kostiuk successfully presented rates to City Council in December 2016, November 2017, and November 2018.

During the height of the most recent state-wide drought, the City contracted with Raftelis to evaluate emergency drought rates as a conservation and revenue recovery tool. Mr. Kostiuk adapted the existing financial plan model and developed multiple scenarios based upon the City’s water supply condition stages. Mr. Kostiuk developed drought rates utilizing the City’s financial plan at each stage and estimating water reductions. The rates were not adopted prior to the end of the state-wide drought however the drought tool is available for quick implementation should drought conditions return. Raftelis is currently contracted with the City for another two-year rate and capacity fee study for 2019 with Mr. Kostiuk as Project Manager.

City of Tustin (CA)

Raftelis contracted with the City of Tustin to develop a ten-year financial plan and evaluate a budget-based rate structure for its customers. Mr. Kostiuk worked extensively with City staff, Raftelis' data services team, and outside consultants of the City to develop the water budget allocation and rate model for the City's approximately 14,000 customer accounts. As part of the model build, data from GIS consultants had to be organized and validated for each of the City customers' parcels. Raftelis' data services team worked internally to ensure matches between assessor's data and GIS data for integration to the water budget model. Rates and customer impacts have been presented to City staff and a public outreach campaign is being devised in anticipation of the council workshop. The project is ongoing.

Placer County Water Agency (CA)

In 2015 Placer County Water Agency (PCWA) contracted with Raftelis to evaluate its water system. PCWA provides retail and wholesale water service to treated water and raw water users throughout western Placer County. In Phase I of the project Mr. Kostiuk evaluated the current system's four service zones and numerous service classes and customer classes. Raftelis then provided recommendations to consolidate and simplify the water system organization and structure. In Phase II Raftelis performed a cost allocation study between the four proposed classes of service to identify the cost of providing service to these distinct users. Phase III consisted of performing cost of service analyses for PCWA's four service classes and developing corresponding rates. The Study was completed in October 2017 with new organization, rate structures, and associated rates implemented January 1, 2018.

Mammoth Community Water District (CA)

Raftelis provided the District with a 10-year financial plan model for both the water and wastewater enterprises, and performing a cost of service analysis for the water enterprise. The district carries out operating and capital activities that are indirectly assigned to the two enterprises. Mr. Kostiuk worked with District staff to carry out a cost allocation study to distribute administrative costs appropriately. Raftelis recommended changes to the water rate structure as part of the Study to simplify the rates and make them more legally defensible.

The study took place at the height of the statewide drought and as part of the project Mr. Kostiuk developed drought rates for the District to implement in times of mandatory conservation or water supply shortage. Being an agency with a large seasonal population Raftelis worked with staff to determine the most appropriate and effective means of charging the drought rates. Mr. Kostiuk designed drought rates for each stage of the District's water conservation plan, effective on the meter-based fixed charge of a customer's bill. This ensured that every connection in the water system shared in the burden caused by the drought, irrespective of water use. Raftelis also evaluated existing capacity fees for both enterprises. This task is ongoing. The water rates, wastewater rates, and drought rates were adopted and implemented January 2016.

In 2018 the District again contracted with Raftelis to conduct a wastewater cost of service and rate study as well as a capacity fee study for both utilities. Raftelis developed updated water and wastewater capacity fees which meet the District's financial and policy objectives. Capacity fees are scheduled for adoption in Summer 2019. The cost of service study is ongoing.

Borrego Water District (CA)

Raftelis contracted with the District to evaluate the impact of county growth projections as well as the Sustainable Groundwater Management Act (SGMA) of 2014. Mr. Kostiuk utilized the existing financial plan model, water supply analyses provided by other District consultants, and assumptions on land acquisitions to determine the effect of SGMA on long term water rates. The Borrego Groundwater Basin is critically over drafted and users will need to decrease water production significantly to achieve sustainable yield by 2040. This will require the District to reduce per capita water use and acquire production credits within the basin by fallowing agricultural land. Mr. Kostiuk estimated water rates in each year through 2040 incorporating assumptions on groundwater production, market values of land in the basin, debt financing, and water source alternatives.

In 2017 Mr. Kostiuk examined the affordability of water rates charged to the District's customers. The assessment analyzed both existing and future rates and affordability under the SGMA scenario identified in 2016. The affordability assessment relied upon the SGMA Impact Assessment and corresponding demand projections, basin yield assumptions, financing assumptions, and projected rates to the year 2040. The project allowed the District to understand affordability of existing rates and water allocation and to estimate the affordability impacts of SGMA compliance in the Borrego Groundwater Basin over the long term.

Borrego Valley Groundwater Sustainability Agency (CA)

Raftelis was contracted by the Agency to develop a financial planning model and fee options for the new entity as mandated by the Sustainable Groundwater Management Act (SGMA). Tasks included working with the core Project Team to develop policy options for fee structuring and various fee recovery mechanisms. Project deliverables included a financing plan memorandum, an Excel-based financial plan Model, operating and administrative budget creation, and a user manual for the Excel Model. The deliverables were used in the submission of the Groundwater Sustainability Plan (GSP) to the State Department of Water Resources (DWR) in 2019.

Soquel Creek Water District (CA)

The Soquel Creek Water District (SqCWD) contracted with Raftelis in 2017 to evaluate a novel rate structure for its ratepayers. Mr. Kostiuk participated in several workshops with the District's citizen Water Rates Advisory Committee and Board of Directors to develop of policy framework for the rate structure and conduct pricing objectives exercises with both groups. Mr. Kostiuk developed a report for the District which informed the rate design in 2018.

In 2018 Raftelis contracted with the District for a long-term financing plan and rate study. Mr. Kostiuk served as the assistant project manager and oversaw the model creation for the financial plan, tiered rate model, and CustomerSelect rate model. The District adopted our recommended three years of rates in February 2019.

Summerland Sanitary District (CA)

Raftelis contracted with the District in 2016 to perform a cost of service and rate study for wastewater services. The study included a 10 year financial plan model, cost of service analysis, and review of the existing equivalency definitions for the District's user classes. Additional work included adoption of a formal financial reserves policy to ensure long term fiscal health as well as updates and additions to the District's miscellaneous fee schedule. Mr. Kostiuk served as Project Manager and Lead Analyst for the project and held several meetings with District staff, the Finance Committee, and the Board of Directors. Five years of rates were adopted in December 2017.

Monterey County Water Resources Agency - New Source Water Evaluation (CA)

In 2017 Mr. Kostiuk performed a cost analysis and evaluation of new source waters from recycled water for its coastal agricultural users. Recycled water production from the several sources will require new infrastructure, treatment, and maintenance. Mr. Kostiuk built an electronic model which incorporated different climate scenarios, costs of capital, operating, maintenance, and treatment, and the water available from all sources under different weather conditions and water rights. The project is ongoing with a series of meetings with the Agency's agricultural customers, County Board of Supervisors, and stakeholder agencies.

City of Buena Ventura (Ventura) (CA)

Raftelis developed long-range financial plans so that the water and wastewater utilities could be financially stable and save costs in the long run. Raftelis also assisted the City with developing different water and wastewater rate alternatives with various scenarios based upon estimated water sales and capital improvement plan (CIP) funding. The study is being conducted with several meetings and input from stakeholders comprised of customers within the City. Raftelis educates the Water Commission on the basics of rates, cost allocations, and rate design to obtain their buy-in using the dashboards in the rate models that were developed. This allows us to demonstrate the impacts of various revenue adjustments on the long-term financial stability of the enterprises. As of May 2019 the studies are ongoing.

City of Riverside (CA)

Mr. Kostiuk completed a study for the City of Riverside (City) to determine the value of an elevation fee credit for present and future customers in a special district. The project required calculation of asset replacement values for infrastructure serving the special district, specific to booster capacity, and within the context of a historical assessment. The findings from the study were used to defend the City's move to assess its elevation fee schedule.

City of Simi Valley (CA)

The City had last raised sewer rates in fiscal year 2008-2009 and was facing a backlog of sewer system improvements and repair and replacement. Mr. Kostiuk updated the existing sewer financial plan with recent data, as well as updated the cost of service analysis. As part of the study, tier definitions were changed for non-residential customers to reduce the base charge on small users without impacting revenue recovery. Working with City staff, and with presentations to City management, Raftelis assisted in getting Council authorization for proposition 218 notices of a rate increase to the City's customers.

The revenue increases will allow the City to commence the public works department's capital improvement schedule while maintaining reserve funds at target levels.

City of Henderson (NV)

Mr. Kostiuk created water and wastewater rate and financial planning models for the City as well as updated their water and sewer system development charges. The project created a combined model for the water and sewer enterprises which incorporated finance department reporting tools. The combined model allows the utility (water and sewer) to be viewed as a one, with impacts and reporting available to the user. The models will be used over the next 10 years to calculate water and wastewater rates as well as to create annual financial statements.

City of Corona (CA)

Mr. Kostiuk assisted the City in updating its financial plans for the water and reclaimed water enterprises. The study included performing cost of service analyses for both utilities and updating the water budget rate structure. In addition, Mr. Kostiuk developed a framework and corresponding rates for contract reclaimed water customers.

City of Raleigh Public Utilities Department-American Rivers (NC)

Mr. Kostiuk served as project leader for a study of alternatives to meet Raleigh's long term water supply shortfall. The project examined four options in extending the life of the existing federal reservoir, thereby postponing capital expenditures on a new raw water supply. Results were delivered to city staff, their consultants and the United States Army Corps of Engineers.

Lower Cape Fear Water Quality Trading Program - The Nature Conservancy (NC)

To reduce nutrient loading and decrease utility costs, the Nature Conservancy proposed a Water Fund to improve water quality through improved agricultural practices on private landholdings in the watershed. Mr. Kostiuk was in charge of researching comparable programs and providing options for a financial mechanism and governance approach between various stakeholders in the region including utilities, agriculture, environmental organizations and community groups.

OTHER RELEVANT PROJECT EXPERIENCE

- Elsinore Valley Municipal Water District – Drought Surcharge Study
- City of Torrance – Wastewater Cost of Service and Rate Study
- Triunfo Sanitation District – Water Rate Study
- La Canada Irrigation District – Water Cost of Service and Rate Study
- City of Lancaster – Wastewater Cost of Service Study
- Antelope Valley – East Kern Water Agency
- Citrus Heights Water District – Groundwater Supply Analysis
- Coastside County Water District – Water Rate Study
- Montecito Basin Groundwater Sustainability Agency
- Madera County Groundwater Sustainability Agencies
- Ventura County Waterworks District No. 8 Simi Valley



Charles Diamond

Lead Consultant Consultant

SPECIALTIES

- Utility Financial Analysis
- Data Collection and Analysis
- Statistical Analysis

PROFESSIONAL HISTORY

- Raftelis: Consultant (2019-present); Associate Consultant (2017-2018)
- UC Santa Barbara Department of Economics: Teaching Assistant (2017)
- UC Santa Barbara Earth Research Institute: Graduate Student Assistant (2015-2017)
- The Nature Conservancy: Science & Stewardship Practitioner (2013-2015)

EDUCATION

- Master of Environmental Science & Management (Water Resources Management) - UC Santa Barbara (2017)
- Bachelor of Science in Environmental Economics & Policy - UC Berkeley (2013)

Mr. Diamond has a background in natural resource economics and water resources management. His expertise lies in financial modeling and data analysis. He joined Raftelis initially in 2017 as an associate consultant upon receiving a master's degree from UC Santa Barbara's Bren School of Environmental Science & Management. Mr. Diamond has developed financial models and conducted analyses for water and wastewater rate studies as well as capacity fee studies.

RELEVANT PROJECT EXPERIENCE

City of Brentwood (CA)

The City of Brentwood engaged Raftelis to conduct a water and wastewater rate study. In 2017, Raftelis helped the City evaluate the current water and wastewater utilities' cost of service and adjusted rates accordingly. Recently Mr. Diamond updated a financial plan model and performed a cost of service analysis for the City's wastewater utility. Mr. Diamond assisted with the update of existing rates as well as the development of a proposed alternative rate structure and rates.

City of Dixon (CA)

The City of Dixon engaged Raftelis in 2018 to conduct a water rate study to develop updated water rates for the City's water utility. Mr. Diamond developed a ten-year financial plan model, performed a cost of service analysis, and developed a five-year schedule of proposed water rates. Mr. Diamond also assisted in the preparation of presentation materials for water rate workshops with the City Council.

La Cañada Irrigation District (CA)

La Cañada Irrigation District engaged Raftelis to conduct a water rate study. Since the last rate study was performed in 2008, Raftelis helped the District evaluate the cost of service and adjusted rates accordingly. In 2017, Mr. Diamond developed a financial plan model for the District to support the financial plan development for fiscal years 2018 to 2027. Mr. Diamond also recently performed a cost of service analysis to assist with the update of the District's rates.

Rancho California Water District (CA)

Rancho California Water District (District) engaged Raftelis in 2017 to conduct a water capacity fees study. Raftelis reviewed and updated the existing methodology for calculating the District's water capacity fees, developed a water capacity fee model for use in calculating updated capacity fees. As part of the study, Mr. Diamond developed the water capacity fee model, calculated updated water capacity fees, and drafted the study report.

The District engaged Raftelis in 2018 to conduct a two-year water, recycled water, and wastewater rate study. Raftelis developed a cost of service rate model to allocate costs and calculate rates for fiscal years 2019 and 2020. Mr. Diamond assisted with rate model revisions, prepared presentation materials for meetings with the District's Board of Directors, and drafted the rate study report.

Santa Ana Watershed Project Authority (CA)

The Santa Ana Watershed Project Authority engaged Raftelis in 2017 to develop a rate model for the Inland Empire Brine Line, which is a pipeline used to divert non-reclaimable wastewater of high brine content from the upper Santa Ana River Basin. Raftelis reviewed and recommended changes to the Authority's reserve policies, developed a ten-year financial plan

for the Brine Line Enterprise Fund, performed a multi-year cost of service analysis, and developed a rate model for use in calculating rates assessed to the Brine Line's dischargers. Additionally, Raftelis assessed and recommended potential methodologies to be used in the development of long-term capacity leasing rates and rental charges. Mr. Diamond developed the financial plan, assisted with the cost of service analysis and rate calculation, drafted the study report, and attended multiple meeting with the Authority's staff.

City of Sonoma (CA)

The City of Sonoma engaged Raftelis in 2018 to conduct a water rate study for the City's water utility. The Study included the development of a five-year financial plan, a cost of service analysis, and the development of proposed water rates for fiscal years 2019-2023. Mr. Diamond processed and analyzed account level billed water consumption data, assisted in development of the water rate model, and drafted the water rate study report.

OTHER RELEVANT PROJECT EXPERIENCE

- Alameda County Water District (CA) – Rate Design and Financial Advisory Services
- Borrego Water District (CA) – Water Affordability Assessment
- Castaic Lake Water Agency (CA) – Facility Capacity Fee Update Study
- City of Lincoln (CA) – Water Rate Study
- Rancho California Water District (CA) – Recycled Water Resource Plan Financial Plan Model
- Santa Rosa Plain, Sonoma Valley, & Petaluma Valley Groundwater Sustainability Agencies (CA) – Groundwater Sustainability Agency Fee Analysis and Rate Setting Services



Lauren Demine

Staff Consultant Consultant

SPECIALTIES

- Financial plan development
- Cost of service
- Geophysical data analysis
- Groundwater sustainability analysis
- Excel modeling
- Database management
- Technical report writing and review

PROFESSIONAL HISTORY

- Raftelis: Consultant (2019-present); Associate Consultant (2017-2018)
- GEOVision Geophysical Services: Senior Staff Geophysicist (2007-2017)
- GeoConcepts, Inc.: Staff Geologist (2005-2007)

EDUCATION

- Bachelors in Geology-California State University, San Bernardino (2012)

Ms. Demine has a background in geology and geophysics. Her expertise includes geophysical data analysis, processing and modeling, and technical report writing and review. During her time as a geophysicist, she has worked with private firms and water districts to address capital infrastructure needs, mitigate the potential of groundwater contaminants, and evaluate the integrity of groundwater basins/well locations. Ms. Demine has developed financial models and conducted analyses for water and wastewater rate studies as well as capacity fee studies.

RELEVANT PROJECT EXPERIENCE

East Bay Municipal Utility District (CA)

East Bay Municipal Utility District (District) hired Raftelis in 2018 to perform a comprehensive wastewater cost of service study and to update the capacity fee for its wastewater utility. The last comprehensive cost of service study was done in 2015 for the wastewater treatment charges. As part of the study, Raftelis thoroughly examined the District's cost structure, analyzed wastewater flow and customers data, and evaluated alternative billable constituents to develop an equitable rate structure that meets Proposition 218 requirements and the District's goals and objectives. While the proposed treatment rates retain the current rate structure, the individual rates are realigned to reflect the cost of service. The Study was led by Hannah Phan, who served as the Lead Consultant for the Study. Ms. Demine assisted with data collection and model development for both the cost of service and capacity fee studies.

City of Galt (CA)

In early 2017, the City of Galt began working on a comprehensive wastewater rate study for the City. The goal of the project was to evaluate several cost allocation and rate structures to ensure compliance with Proposition 218. The Study was led by Andrea Boehling, who served as the Lead Consultant for the Study. Additionally, the City hired Raftelis to perform annual updates of the financial plan for both water and wastewater. Ms. Demine worked with the City and Project Manager to assist with completing the 2019 annual update.

City of Atwater (CA)

The City of Atwater commissioned Raftelis to develop financial plans and cost of service studies for their water and wastewater utilities. Located approximately eight miles northwest of Merced, CA, the City provides water service to approximately 7,600 customers and wastewater services to approximately 8,500 units. Ms. Demine assisted in updating the financial plans and developing the cost of service analysis for both utilities.

City of Livermore (CA)

The City hired Raftelis to perform a comprehensive Cost of Service Water and Wastewater Rate Study. The City set their rates internally and wanted to receive an independent review and update to its rates from an outside firm. Mr. Isaac served as Project Manager with Ms. Boehling as lead consultant. As part of the study, Raftelis provided recommendations to the rate structure to ensure compliance with the cost of service principles of Proposition 218. The study concluded in June of 2017 with unanimous approval of the proposed rates. Ms. Demine assisted with data collection and model development for both enterprises.

Lake Hemet Municipal Water District (CA)

The District commissioned Raftelis in 2017 to develop financial plans and cost of service studies for the water and wastewater services. The main objectives of the study were to ensure financial

sufficiency, meet operation and maintenance costs, and to ensure funding for both capital and reserves. Ms. Demine was responsible for gathering and analyzing data, creating the Garner Valley enterprise financial plan, developing the cost of service model and rate model, and assisted in drafting the detailed report highlighting the decisions made and the explaining the calculation of the final rates. As part of the study, Raftelis evaluated interfund loans between enterprises with varying repayment terms and modeled various rate structures.

Helix Water District (CA)

The Helix Water District (District) hired Raftelis to conduct a comprehensive cost of service analysis and financial plan update. The last cost of service study was conducted back in 1988 and needed to be updated to be in compliance with Government Code Section 54999.7(c). Rates for a five-year period were adopted in October of 2015. Additionally, the District hired Raftelis to perform annual updates of the financial plan. Ms. Demine worked with the District and Project Manager to assist with completing the 2018 annual update.

Leucadia Wastewater District (CA)

The district hired Raftelis to update its financial plan for both its wastewater and recycled water enterprises and to update the capacity fee for its wastewater utility. The main objectives of the study were to ensure long-term financial sufficiency, meet operation and maintenance costs, and to ensure funding for both capital and reserves over a 20-year planning period. The Study was led by Andrea Boehling, who served as the Project Manager for the Study. Ms. Demine assisted with data collection and model development for both enterprises.

Monterey County Water Resources Agency (CA)

Ms. Demine assisted in the preparation of the 2017 new source waters study report for Monterey County Water Resources Agency. In this report, she documented the cost analysis for the operation and maintenance of new source waters as well as the capital costs of the new source waters. New source waters included additional agricultural wash, pond water, and new treated effluent from industrial users.

Sierra Madre (CA)

Ms. Demine assisted in the preparation of the 2018 comprehensive water and wastewater cost of service study report for the City of Sierra Madre. The purpose of this study was to develop a financial plan and design rates for the City's utilities over the next five years.

OTHER RELEVANT PROJECT EXPERIENCE

As a geophysicist for GEOVision Geophysical Services, Ms. Demine was responsible for conducting subsurface investigations. She was also involved in helping to determine the best geophysical method to meet the client's needs. Ms. Demine was responsible for efficiently managing and organizing the data collection, analysis, and processing phases of the geophysical investigation. She has worked on projects ranging from determining the depth and lateral extent of groundwater tables in various basins, gathering data on bedrock properties for the construction or repair of various infrastructure projects (e.g. dams, tunnels, and pipelines), relocating abandoned water wells, locating the depth and/or lateral extent of contamination plumes or seawater intrusion, and determining the best location for the placement of new water wells.

Related Geophysical experience:

- Monterey Interlake Tunnel
- Cadiz Inc. Pipeline
- Stringfellow Acid Pits
- Hinkley, CA Chromium Cleanup
- Catalina Seawater intrusion analysis
- Oroville Dam
- Sierra Madre Dam
- San Vicente Dam



Arisha Ashraf

Staff Consultant Consultant

SPECIALTIES

- Statistical Data Analysis
- Natural Resource Economics
- Financial Modeling

PROFESSIONAL HISTORY

- Raftelis: Consultant (2019-present)
- California Data Collaborative: Research Fellow (2018-19)
- UC Riverside Environmental Science Dept.: Graduate Researcher (2010-18)
- World Resources Institute: Africa Program Coordinator (2007-10)

EDUCATION

- Doctor of Philosophy in Environmental Economics & Policy – University of California, Riverside (2018)
- Master of Arts in International Development Studies – Brown University (2005)
- Dual Major in Biology and International Relations – Boston University (2001)

Arisha enjoys problem-solving to improve efficiency. This stems from her interest background in economics and natural love of learning. She has multi-disciplinary academic training, and worked in non-profit, start-up, university, and business settings. Arisha is excited about further building her excel skills, and how big data will be incorporated into our financial analyses.

RELEVANT PROJECT EXPERIENCE

California Data Collaborative (CA)

Arisha worked with this innovative start-up company to analyze water conservation behavior in Southern California water utility customers. This included data for over 30K single-family accounts.

UC Riverside Environmental Sciences Department (CA)

Arisha surveyed Southern California farmers on their water management practices and the impact of climate change. She performed econometric analysis on her survey data with a team of 4 undergraduate students. She is in the process of publishing her research results. Arisha also served as a Teaching Assistant for undergraduate classes in environmental economics and environmental science classes.

World Resources Institute (DC)

Arisha managed budgets totaling \$3M for resource conservation and poverty reduction projects in Senegal, Uganda, Cameroon, and the Democratic Republic of Congo. She also prepared evaluation reports for 3 large projects from the World Bank, Gates Foundation, and the German International Development Fund. In addition, she developed proposal and public outreach material.

PUBLICATIONS

- Ashraf A, Dinar A, Gonzalez-Rivera G, Khan T, and R Amin. (Projected submission: March 2019). Water Management Decisions under Drought Conditions: Results from a Farm-Level Survey in Southern California.
- Ashraf A, Dinar A, Khan T, and J Gonzalez. (Submitted December 2018). Farm-level Ricardian Analysis of Desert and Southern Regions of California.
- Dinar A, Ashraf A, and J Reints. (2017). Farmer Adoption of Water Management Practices in Response to Recurrent Drought. American Association of Agricultural Economics Choices Magazine, 32(4).
- Ashraf A, Dinar A, Montiero E, and T Gaston. (2016). Adaptation in California Agriculture: What Have We Been Assessing for Two and a Half Decades? Climate Change Economics, 7(2).
- Ashraf A and P Veit. (2010). Assessing Sub-Saharan Africa's Water Future under Alternative Policy Scenarios. Background Report to the 2010 African Development Report.

PRESENTATIONS

- Western Economic Association International Annual Meeting, 2018
- University of California Cooperative Extension Annual Meeting, 2018
- Giannini Graduate Symposium, 2011-2017
- Southern California Association of Governments, May 2017
- Annual Environmental Sciences Graduate Symposium, 2011-2016



Sindhu Sundar

Staff Consultant

Associate Consultant

SPECIALTIES

- Statistical Data Analysis
- Business Intelligence
- Natural Resource Economics

PROFESSIONAL HISTORY

- Raftelis: Associate Consultant (2019-present)
- LegalZoom, Inc.: Business Intelligence and Data Analytics Intern (2018)
- California Global Innovation Exchange: Market Research Intern (2016)

EDUCATION

- Bachelor of Science in Environmental Economics & Policy – University of California, Berkeley (2018)

Ms. Sundar has a background in environmental economics and business intelligence. She joined Raftelis in January 2019 as an Associate Consultant, upon receiving a bachelor's degree from UC Berkeley's College of Natural Resources in December 2018. Ms. Sundar has developed econometric models for economic behavior and consumption patterns for UC Berkeley and LegalZoom, Inc. as an undergraduate student.

OTHER RELEVANT PROJECT EXPERIENCE

University of California, Berkeley (CA) 2018

Ms. Sundar aided Professor Villas-Boas of the Agricultural and Resource Economics Department in a research project on the economic impacts of shock events, such as extreme pollution and crime. Ms. Sundar conducted data collection and econometric analysis, quantifying various effects on the communities across the nation through factors such as natality rates, real estate value, and education levels.

LegalZoom, Inc. (CA) 2018

Ms. Sundar developed sales projections and market penetration models as part of her Competitive Analysis for Estate Planning products. She heavily utilized tools such as Google Analytics and Microsoft Excel to create statistical visualizations.



Melissa Elliott APR

Customer Education and Outreach

Director of Strategic Communication Services

SPECIALTIES

- Strategic communication planning
- Stakeholder engagement
- Public involvement
- Community outreach
- Crisis and risk communication
- Reputation management
- Coalition building and campaigns

PROFESSIONAL HISTORY

- Raftelis: Director of Strategic Communication Services (2018-present)
- Denver Water: Director of Public Affairs (2012-2018); Manager of Water Conservation (2008-2012)
- Aurora Water: Manager of Public Relations (2000-2008)

EDUCATION

- Masters of Science in Technical Communication (Public Relations) - Colorado State University (2005)
- Bachelors of Arts in Technical Journalism (Public Relations) - Colorado State University (1991)
- Graduate, Water and Wastewater Leadership Center, University of North Carolina, Kenan-Flagler Business School (2016)

PROFESSIONAL MEMBERSHIPS

- American Water Works Association: President-Elect; Former Public Affairs Council Chair
- Water Environment Federation
- National Association of Clean Water Agencies
- Public Relations Society of America: Accredited in Public Relations (APR)

Ms. Elliott has a 20+ year public relations career spent almost entirely with water and wastewater utilities and municipalities. She directs communication planning, stakeholder engagement and risk communication strategies. She also facilitates public involvement efforts and public meetings. Prior to joining Raftelis, Ms. Elliott directed the public affairs efforts at Denver Water, which included creating the public engagement strategy for massive infrastructure projects, developing a nationally recognized lead service line replacement program, and leading conservation outreach efforts through the innovative “Use Only What You Need” campaign. She has extensive experience working with elected officials, stakeholders and the public on issues as diverse as drought, water quality, potable reuse, affordability, rate structure change, impactful construction projects, customer assistance programs and demand management. She has an M.S. in technical communication and a B.A. in journalism and is Accredited in Public Relations (APR) from the Public Relations Society of America. Highly active in the water industry nationally and regionally, Ms. Elliott is the American Water Works Association president-elect and former chair of AWWA’s Public Affairs Council. She has served on a variety of association committees including chairing the Strategic Planning Committee and chairing the AWWA/WEF Transformative Issues Symposium on Affordability.

RELEVANT PROJECT EXPERIENCE

Sweetwater Authority, CA - Rate Study Communications

Sweetwater Authority (SWA) serves drinking water to 190,000 people in southern California. The utility had not had a rate increase since 2015, and wished to build community support for the need for investment in infrastructure. SWA has public relations staff and a good communications foundation, but sought specialized assistance in messaging and community outreach specific to their rate study. Ms. Elliott provided a strategic communications plan, guidance on messaging strategy and community outreach tactics. SWA approved a five-year rate increase and the communications efforts for this project received the AWWA Public Communications Award in 2019.

Fort Collins-Loveland Water District, CO - Rate Study Communications

Fort Collins-Loveland Water District’s (FCLWD) Rate Study recommendations demonstrate the need for significant changes to both their water rates and their system development (tap) fees. The utility is investing in increasing their water supply and had not previously done public engagement work and needed a way to explain the rate study to customers while seeking customer acceptance of higher rates and developer acceptance of a new way of charging for tap fees. Ms. Elliott developed a strategic communications plan for FCLWD, guided staff through the plan implementation and developed several community outreach strategies for the utility including hosting two successful community open houses to provide context for the proposed changes.

City of Craig, CO - Rate Study Communications

A small community in Northwestern Colorado, the City of Craig has experienced an economic downturn and struggled in the past to get support for much needed tax increases. Facing the need to determine how best to fund significant upcoming water and wastewater capital needs Craig sought community outreach and communications assistance. Ms. Elliott developed a strategic communications plan that included several community outreach tactics that the city used successfully.

Denver Water - Lead Service Line Replacement Program

Denver Water exceeded the action level for lead in 2012, setting off the state's largest ever public health risk notification. Within just two months of that exceedance Ms. Elliott led the effort to notify every resident, pediatrician, obstetrician, school, child care facility and special population in the treated water service area—six counties in size. That risk communication plan then evolved into a much larger effort to address the looming public health and reputational threat that was posed when the utility became aware that nearly one in three homes in Denver had a lead service line. Ms. Elliott's work on this effort involved a risk communication plan and strategic communication. The program included:

- Creation of coalitions to support regulatory and legislative strategies aimed at advocating for funding and requirements for testing to encourage lead service line removal
- Direct work with executives and board commissioners to explain policy options and practical funding approaches to encourage customers to replace lead service lines.
- Spokesperson for media interviews.
- National recognition by regulatory and environmental organizations as a leading program

Denver Water - Gross Reservoir Expansion Project

Expanding Gross Reservoir will help Denver Water protect its customers from negative impacts of a future drought and shortfalls in Denver Water's overall water storage system. This project will increase Gross Reservoir's capacity to 119,000 total acre feet by adding an additional 77,000 acre feet. The Gross Reservoir Expansion Project is one of the major elements of Denver Water's long-term supply plan. It will prevent future shortfalls during droughts and correct a serious imbalance in the North-South collection system. With this project, Denver Water will provide more water to customers while improving the environment surrounding the planned expansion. The project is in Boulder County, Colorado and residents living near the reservoir will not benefit from its expansion.

Ms. Elliott's work on this project included overseeing a strategic communication and public engagement program with assistance from an outside consultant and staff. The program rebranded the Gross Reservoir Expansion Project (formally called the Moffat Collection System Project) and focused efforts on the community living near the reservoir who will be directly impacted by construction. That effort has been followed by a more active outreach program with Denver Water customers who will need to know the value of this project as they see increases on their water bills. The communication program includes:

- Building goodwill and recognition of the Gross Reservoir Expansion Project by proactively engaging the Boulder County community and advocating for public construction impact mitigation.
- Using public participation tools, and designing a series of public availability sessions allowing for one-on-one discussions and decreased tension in the community.
- Development of a full suite of communication materials branded and produced to focus on the environmental enhancements innate to the project.

- Executing on a plan to develop an on-site public education space—the nation's first public information yurt—staffed at Gross Reservoir to provide personal interaction with visitors so they can learn about the project's need, benefits and progress.

Aurora Water - Prairie Waters Potable Reuse Project

The City of Aurora's Prairie Waters Project includes 34 miles of 60-inch diameter pipeline, three pump stations, a natural purification area and the Binney Purification Facility. Designed to protect the city against drought, like the one in 2002 that left Aurora with only a 9-month supply of water, the system uses a sustainable water source by recapturing river water. The project meets the definition of an indirect potable reuse project, however doing an internet search on that term won't provide many hits—and that's purposeful. The project was branded as a drinking water project. As drought gripped the City of Aurora, engineers grappled with how to get a project in the works quickly that would require no federal permitting. Prairie Waters was borne out of necessity. Ms. Elliott led the communication program for this project with the assistance of an outside contractor that included the following:

- Branding the project name and water purification facility in a way that would build support from the public concern for this new water source.
- Securing customer and elected city council support for rate increases that were significant—four years of double digit increases—yet necessary to ensure borrowing capacity.
- Retained positive reputation during eminent domain and right-of-way negotiations over the 34-mile pipeline in three counties.
- Ensuring public acceptance for a new water source by securing third-party endorsements of the project and public engagement opportunities to leverage public interest in solving the water crisis.
- Building the community rationale for the project by pitching media, conducting 750+ media interviews over 18 months during the drought.

City of Newport, OR - Save Our Supply Campaign

The City of Newport has two dams that have recently been found to be structurally deficient if the coastal community were to experience an earthquake. The dams are listed as the state engineer's second and third most needed dam replacements in the state. The community is small and the cost to replace this infrastructure is estimated to be \$75 million. Ms. Elliott developed a communications strategy for a campaign to build community awareness about the project to support government relations efforts seeking state and federal funding for a significant portion of the project costs.

Washington Suburban Sanitary Commission, MD - Rate Structure Change

WSSC successfully adopted a major rate structure change in 2018 following a regulatory directive to do so. The utility spent considerable effort in 2017 engaging customers to get input into rate structure design. WSSC sought assistance with developing a communications and outreach strategy to inform stakeholders and customers of the rate change that will be implemented, along with major new customer service initiatives in July 2019. Ms. Elliott audited the utility's current rate communication efforts, developed and tested a message platform, and worked with WSSC staff to

create a communication strategy that will align with other customer service initiatives and increase customer acceptance of the rate change.

Municipal Authority of Westmoreland County, PA – Ongoing Communications Consulting

MAWC is the third largest utility in Pennsylvania but has limited staff resources for communications efforts. Recognizing the need to have strategic counsel available, MAWC contracted with Ms. Elliott to provide as-needed communications consulting for issues management and strategic planning purposes.

Eagan Public Works Utilities, MN – Employee Engagement for Strategic Planning

The City of Eagan Public Works Utilities Department is preparing for their future and developing a strategic plan. Ms. Elliott prepared and facilitated two workshops with all public works utilities employees, including a Strengths, Opportunities, Aspirations and Results (SOAR) analysis and development of the organization's values statement. The work done in the workshops serves as the foundation for the utility's strategic plan.

Louisville Water Company, LA – Internal Communications Plan

Louisville Water Company recently developed a Strategic Business Plan and wanted to ensure that employees were engaged and inspired by the plan. Ms. Elliott developed an internal communications plan to roll out the Strategic Business Plan to employees that included a “first six months” timeline and task list to keep the plan at the forefront of employee communication.

Birmingham Water Works Board, AL – Cost of Service Study

BWWB's cost of service study ensured customers are charged only for what it costs to serve them. Part of the study reviewed the way customers are charged for water through BWWB's rate structure. BWWB prioritized revenue stability, affordability, and minimal customer impacts as the primary objectives of how it prices water service. The cost of service study made recommendations for any changes needed to recover costs to serve customers in proportion to their use of the water system. Ms. Elliott worked hand-in-hand with BWWB staff and rate consultants to implement a communications strategy that built public trust in the cost of service study decision-making process through a variety of community outreach tactics.

Lakewood, OH – Community Engagement

The City of Lakewood is working through a regulatory response and developing an infrastructure plan to address combined sewer overflows. Ms. Elliott developed an extensive community engagement program to demonstrate that the city is advocating on behalf of their citizens in terms of an affordable plan to address regulatory concerns. The engagement efforts implemented by Ms. Elliott and City staff included facilitated round table discussions, electronic voting at a large public meeting and a community open house to gather public input. The engagement effort has touched hundreds of residents on a topic that is typically difficult to get community traction on.

Richmond Department of Public Utilities, VA – Affordability Program Campaign

The City of Richmond Department of Public Utilities (DPU) has done considerable work to develop the MetroCare Water Assistance Program. The program is intended to bridge the gap for at-risk customers experiencing a challenge in paying their water bill. DPU has also implemented rate structure changes to factor in affordability by creating a lifeline rate for essential water use. Although the MetroCare Water Assistance Program appears to be funded adequately, and there is a demonstrated need in the community, the number of households receiving assistance has declined and has never met the available funding in the three years the program has been in existence. Ms. Elliott is assisting DPU with developing strategies to improve program outreach and participation.

INDUSTRY ENGAGEMENT

- Telling Your Story Through Content Marketing, Workshop Facilitation, Utility Management Conference, March 2019
- AWWA/WEF Transformative Issues Symposium on Affordability,” Chair, 2018
- “The Shape of Water,” Presentation at the 2018 Engaging Local Government Leaders Annual Meeting, May 2018
- “Building Support for Rate Structure Change,” Presentation at WaterNow Alliance Annual Summit, March 2018
- “Public Affairs – Getting to Know Your Stakeholders in Advance of a Rate Change,” Article, Journal AWWA, December 2017
- “Building Support for Rate Structure Change,” Presentation at WaterNow Alliance Workshop, 2017
- “Communicating About Water Quality: Lead Case Study #1: Denver Water,” Presentation at the 2017 AWWA Annual Conference and Exposition
- “Providing a Customer Outreach Program Related to Lead Service Line Replacement,” Presentation at the 2017 AWWA Annual Conference and Exposition
- “The Recipe to Success in Implementing a Water Rates Campaign: Case Studies,” Presentation at the 2017 AWWA Annual Conference and Exposition
- “Factoring Affordability into Rate Structure Change,” Webinar for AWWA Infrastructure Finance Series: Innovative Strategies for Customer Affordability, 2017
- “What Lies Beneath: Challenges in Maintaining Water Infrastructure,” Presentation at the Government Finance Officers Association Annual Conference, 2017
- “Flint and Lead: The Water-Public Health Connection,” Webinar for AWWA and American Public Health Association, 2016
- AWWA Strategic Planning Committee, Chair, 2016



Katie Knoll

Customer Education and Outreach

Senior Consultant

SPECIALTIES

- Community Relations Planning
- Public Relations
- Facilitation
- Public Involvement
- Strategic Communication Planning

PROFESSIONAL HISTORY

- Raftelis: Senior Consultant (2018-present)
- Denver Water: Community Relations Manager (2012-2018)
- Colorado Parks and Wildlife: Public Involvement Unit Manager (2005-2012)

EDUCATION

- Master of Science in Environmental Policy – Bard College (2003)
- Bachelor of Science in Biology – Wittenberg University (1997)

Ms. Knoll has 15+ years of experience in community, government and public relations in natural resource management and water treatment and distribution. Prior to joining Raftelis, Ms. Knoll managed the community relations efforts at Denver Water, creating public engagement strategy for large infrastructure projects and pioneering the implementation of the Good Neighbor Promise to build and maintain a positive reputation and trusted relationships in the community and help customers cope with construction impacts. Throughout her career, Ms. Knoll has been working and communicating with a variety of constituent groups ranging from leaders in education funding to environmentalists and sportsmen to water utility ratepayers and local government officials. Ms. Knoll has a bachelor's degree in biology from Wittenberg University in Ohio and a master's degree in environmental policy from Bard College in New York. Prior to accepting her position at Denver Water, Ms. Knoll spent almost a decade as the public involvement unit manager for Colorado Parks and Wildlife.

RELEVANT PROJECT EXPERIENCE

Denver Water, North System Renewal

Denver Water is making a capital investment of more than \$600 million dollars over the next 6-7 years to upgrade and improve the infrastructure serving the north side of its distribution and collection system. The North System Renewal consists of a suite of projects that includes: building a new treatment plant, replacement of an 8.5-mile pipeline and the transition of an existing treatment plant to a water distribution center. Communication challenges for this project were many, the project encompasses several local government jurisdictions and a community not directly served by Denver Water. Additionally, the pipeline route crosses more than 200 residential and commercial properties resulting in significant construction impacts on or directly adjacent to each individual property. Ms. Knoll led all stakeholder engagement efforts for the project, developing a communications and outreach strategy to serve directly impacted residents, business owners, elected officials and communities through a series of community and City Council meetings, presentations and specifically tailored site visits for impacted property owners. Ms. Knoll developed all communication materials, messaging and website content, specifically a portfolio of blog posts and videos that not only explained the need for the project but provided context and visuals for the scope and scale of construction that residents could expect.

Denver Water, Hillcrest Water Storage Tank and Pump Station Replacement

The Hillcrest water storage facility is the “hub” of Denver Water’s entire distribution system. Water is sent to this facility from all three treatment plants and from there can be sent anywhere in the system for use by Denver Water customers. In 2016, Denver Water began a multi-year effort to replace the water storage tanks and pumping station at the site. The Hillcrest facility, much like most of Denver Water’s infrastructure, has seen the community build up around what was largely a rural area when the tanks were originally built in the mid-1960s. Residential homes are so close in proximity that they share the Denver Water fence line. Ms. Knoll developed the communication and outreach strategy for this community focusing on the neighbors that would see construction impacts immediately outside their backyards and implementing the first of its kind – “good neighbor promise” for a Denver Water construction project. More than halfway through the project, this promise has served as a guidepost for Denver Water and its

contractors, removed community barriers that may have slowed the project and built Denver Water's reputation as trusted neighbor and water service provider. Ms. Knoll also pioneered the use of the neighborhood social media platform, "NextDoor," to expand communication on this project. After piloting this communication strategy on the Hillcrest project, Ms. Knoll successfully integrated this tool into Denver Water's broader social media strategy.

Denver Water, Advisory Committee Oversight

As the community relations manager for Denver Water, Ms. Knoll developed a program for the use of advisory committees as a tool for collecting customer feedback on Denver Water programs and initiatives. Ms. Knoll facilitated both short and long term advisory committees on topics ranging from recycled water usage and water conservation and efficiency to infrastructure projects and water rate increases. Ms. Knoll facilitated a year-long discussion between Denver Water, Denver Parks, Denver City Council and community members to address concerns about recycled water impacts on landscape in the Denver Parks system resulting in a consensus action plan that maintained the use of recycled water while also protecting park landscapes. Ms. Knoll also provided guidance, leadership and facilitation for the permanently established Citizens Advisory Committee (CAC) charged with advising the Denver Water Board on a variety of issues ranging from drought communication to feedback on rate structure changes and increases. Ms. Knoll developed a focus group program for the CAC that engaged the members of this committee in soliciting feedback from the communities they represented and packaged that feedback in a way that could be meaningfully incorporated into Denver Water decision making processes.

City of Idaho Springs, Water and Wastewater Rate Study

The City of Idaho Springs, CO is growing and the need for significant water and wastewater infrastructure to support this growth is significant. The City enlisted the assistance of Raftelis to conduct a cost of service study and provide rate adjustment recommendations to help plan for future infrastructure investment, ensuring the required revenue was available and to assign costs to appropriate users so that any recommended rate increases were fair, equitable and defensible. Rate increases were recommended and were potentially significant for many residents and businesses. The City wanted to provide an opportunity for residents to learn about and understand the need to upgrade infrastructure and the rate increases recommended to support this investment. Ms. Knoll designed an open house format to provide this opportunity. She oversaw the development of presentations on both financial and engineering recommendations to ensure tone, accessibility and ease of understanding for a public not familiar with the intricacies of public financing and infrastructure engineering. Additionally, she designed infographic displays and handouts based on this information to assist residents in understanding the issues, the proposed solutions and how they might be impacted. Residents left with an understanding of the complexities of providing water and wastewater services and City staff and council members gained

confidence in their decision understanding that, while residents might not like the rate increases, they supported the need and understood the benefits to the community.

City of Prescott, Development Impact Fee Study

The City of Prescott, AZ has is experiencing rapid growth and increasing development within the city boundaries. As a result, they identified a need to update their development impact fees to help pay for needed expansion of existing infrastructure to accommodate new development. The process for updating development impact fees is specified in Arizona state statute and includes a public involvement requirement. The City chose to fulfill the public involvement requirement by convening an advisory committee – the Mayor's Commission on Development Impact Fees – composed of members of the development community. Increasing development impact fees will be impactful to this community and will impose additional costs on everyone from developers to construction firms to potential buyers. Ms. Knoll led the Mayor's Commission process on behalf of the City. She facilitated three Commission meetings, designing agendas that provided space for information sharing and encouraged productive and meaningful discussion between City staff and Commission members resulting in improved understanding and relationships. The Commission ultimately supported the final proposal to update development impact fees, both the framework for developing them and the actual fees, presented to the Prescott City Council for approval.

City of Lakewood, Clean Water Lakewood

The City of Lakewood, OH is working to develop a plan to address Clean Water Act compliance for its sewer and stormwater systems. The City's system is subject to overflow during extreme weather events causing pollution concerns for local rivers and lakes. As a result, the U.S. EPA and Ohio EPA are requiring the City to find a way to treat or mitigate the millions of gallons of combined sewer overflow that happen on an annual basis. Addressing this issue will require millions of dollars of investment in public infrastructure in addition to the need for improvements on private property. Wastewater bills will need to be increased and programs developed to assist homeowners with needed private property improvements. Lakewood is engaging in a public involvement process to help its citizens understand the issue and the investment needed and to solicit feedback on how the City should move forward. Ms. Knoll pioneered the use of a new public engagement technique and technology as part of this process. Using onsite polling technology, Ms. Knoll developed an interactive public event that allowed more than 80 citizens to provide feedback on specific questions related to this issue and the options the City could pursue to address it. Attendees were provided with devices that allowed them to vote on options with results displayed in real time at the event. Providing real time voting results allowed staff and attendees to have more meaningful discussions that built on the feedback and preferences of the group. Staff walked away with clear feedback and support from residents for addressing this issue.

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References

We have included descriptions of several similar projects that we have worked on within the past five years. We have included references for each of these clients and urge you to contact them to better understand our capabilities and the quality of service that we provide.

Western Municipal Water District

CALIFORNIA

Contact Person:

Rod LeMond, CPA
 Assistant General Manager/Chief Financial Officer
 14205 Meridian Parkway
 Riverside, CA 92518
 P: 951.571.7203
 E: rlemond@wmwd.com

As a member agency of MWD of Southern California, Western Municipal Water District (District) provides water and wastewater service to approximately 24,000 retail and 8 wholesale customers in western Riverside County. Raftelis assisted the District in the development and implementation of a new water budget rate structure.

First, Raftelis identified and examined three potential water budget rate structures for the Murrieta and Riverside service areas. To analyze the impacts of these potential rate structures, Raftelis developed a Microsoft Excel-based water budget rate model. The model allowed the District to change the key factors

for water allocations, provide revenue and impact analysis, and generate sample customer monthly bills under existing and proposed rates. Raftelis conducted meetings and workshops with District staff and the Board to analyze various rate structure scenarios to ensure that the new structure would meet the District's objectives. Through these meetings, a water budget rate structure was selected to effectively meet the District's needs, and this structure was successfully adopted.

Since the adoption of this water budget rate structure, the District has increased revenue stability, promoted water efficiency, and increased customer satisfaction.

In addition to developing the water budget rate structure, Raftelis also developed a customized, long-term 30-year financial plan model to help the District financially manage all 14 of its enterprises. This comprehensive yet user-friendly model is used to facilitate communication between staff and the District's Board of Directors about the financial implications of different financial policies and capital improvement projects. The model also assists with coordination and decision making between engineering and finance staff as they work to prioritize capital projects and define a capital financing plan to achieve a sustainable and achievable solution.

El Toro Water District

CALIFORNIA

Contact Person:

Dennis Cafferty

Assistant General Manager/ District Engineer

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Raftelis has assisted El Toro Water District (District) with the development of its rates on an ongoing basis since 2006. At that time, the District had not updated its water and wastewater rates or rate structure in more than 10 years and was operating at a deficit. Raftelis prepared a 12-year financial plan evaluating the operating and capital expenses, debt service, and reserve requirements. A cost of service analysis was conducted to review the equity of the rates and existing rate structures. The adopted rates, resulting from the cost of service study in 2006, unbundled rate components to convey the true cost of various service components and to continue to equitably pass on the cost of water, wastewater, and recycled water services to users.

In 2009, the District engaged Raftelis to design a water budget rate structure for its residential and irrigation accounts to help promote water-use efficiency. Raftelis designed a water budget rate structure which ensured revenue stability, financial sufficiency, and provided the appropriate price signal for different supply costs and conservation program funding for the District. The following outlines the methodology used to develop the water budget rate structure:

- Indoor allocations varied by the number of occupants and outdoor allocations varied based on weather data and irrigable area
- The irrigable area was determined by taking the total parcel area less the building area acquired from the Assessors' Secured Roll
- The allocation budgets considered irrigation efficiency and type of landscape

Next, Raftelis developed a water budget rate model that allowed the District to quickly view the impacts of alternative rates and budgets, to aid policy makers in making well-informed decisions in a timely manner. This tool proved invaluable when presenting the results in a graphical format to the District Board of Directors because it enabled them to easily see the impacts of different water budgets on their customers in real-time. As a result, the Board adopted the water budget rate structure in June 2010. To minimize rate shock to upper-tier users, Raftelis developed a three-phase implementation plan that slowly phased in Tier 3 and Tier 4 rates. The rate unbundling and phase-in implementation plan were found beneficial and useful for the District during public outreach and rate implementation. The findings and recommendations

resulting from the Study were summarized and documented in the Study Report.

Since the water budget rate study, each year Raftelis was retained by the District to conduct the cost of service annual study to update its water and wastewater rates. In 2012, the District engaged Raftelis to conduct a recycled water financial plan study to evaluate the impacts of the recycled water expansion on the Water and Wastewater Enterprises.

In late 2014 and early 2015, California experienced one of the most severe droughts in state history. The District purchases 100 percent of its potable water supply from the Metropolitan Water District of Orange County (MDWOC), a wholesale customer of the Metropolitan Water District of Southern California (MWD). To address water supply issues, MWD developed the Water Supply Allocation Plan (WSAP) which provides reduced allocations to wholesale customers within MWD's service area. In turn, on January 20, 2015, MDWOC adopted a methodology to determine the allocation to its member agencies. Member agencies, such as the District, can purchase water above the allocation, but such purchases are subject to severe penalties. The District engaged Raftelis to conduct a drought rate study to determine the indoor and outdoor drought factor adjustments necessary to encourage conservation among its residential and irrigation customers and to develop penalty rates for commercial customers in order to achieve the required reductions in consumption under increasing levels of drought. As part of the study, Raftelis conducted financial impact analysis on revenues, expenditures, and net revenues for each drought stage. The study analyzed the impacts if: 1) customers continued to consume at normal (non-drought) levels, or 2) customers reduced consumption by the amount required. The methodology and results of the Study were documented in the drought study report and submitted to the District to support the adoption of the District's "Water Conservation & Water Supply Shortage Ordinance" in 2015.

In 2017, the District retained Raftelis to conduct Rate Study Introduction Workshop for its employees. The District also requested Raftelis' services for its annual rate update study for water and recycled water services, and cost of service analysis for its sewer services. Raftelis presented the results of the study to District staff using the Rate Model to run rate scenarios and customer impact analysis. The results of the study were documented in the Final Report submitted to the District in April 2017 and the rates were adopted July 1, 2017.

City of Camarillo

CALIFORNIA

Contact Person:

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In 2011, the City of Camarillo (City) engaged Raftelis to conduct a comprehensive water and wastewater rate study to independently assess and evaluate existing water and wastewater rates for compliance with industry standards and California regulations, and to develop a financial plan to ensure financial sufficiency while minimizing rate impacts to the greatest degree possible. The study included a comprehensive review of the water and wastewater enterprises' revenue requirements, a review of the City's user classification and usage patterns, a cost of service analysis, the development of water and wastewater connection fees, the design of water and wastewater rates, and the analysis of customer impacts along with a rate survey of neighboring agencies. The City had significant capital improvement projects scheduled in the immediate future (FY 2012 to FY 2014); to smooth out customer impacts while sufficiently maintaining the utility's systems, Raftelis developed water and wastewater financial plan models to evaluate different CIP scenarios, financing options, and associated financial impacts. Raftelis recommended water and wastewater rate schedules for a two-year period effective January 2012 and 2013, which were approved by the City Council in November 2011. Since then Raftelis has updated the City rates on a biennial basis and has recently reevaluated the financial plan for FY 2017.

The City relies heavily upon imported water and has experienced a reduction on its groundwater allocation within the Fox Canyon Basin due to saltwater intrusion. To help mitigate the impacts from drought and increasing source costs, the City has developed a recycled water system to provide non-potable supply to irrigators and other non-residential accounts within the service area. In 2015 Raftelis developed a financial plan for the new recycled water enterprise. As part of the Study, Raftelis conducted a cost of service analysis and developed recycled water rates. Recycled water rates were adopted by City Council, in conjunction with potable rates, in July 2016.

City of Thousand Oaks

CALIFORNIA

Contact Person:

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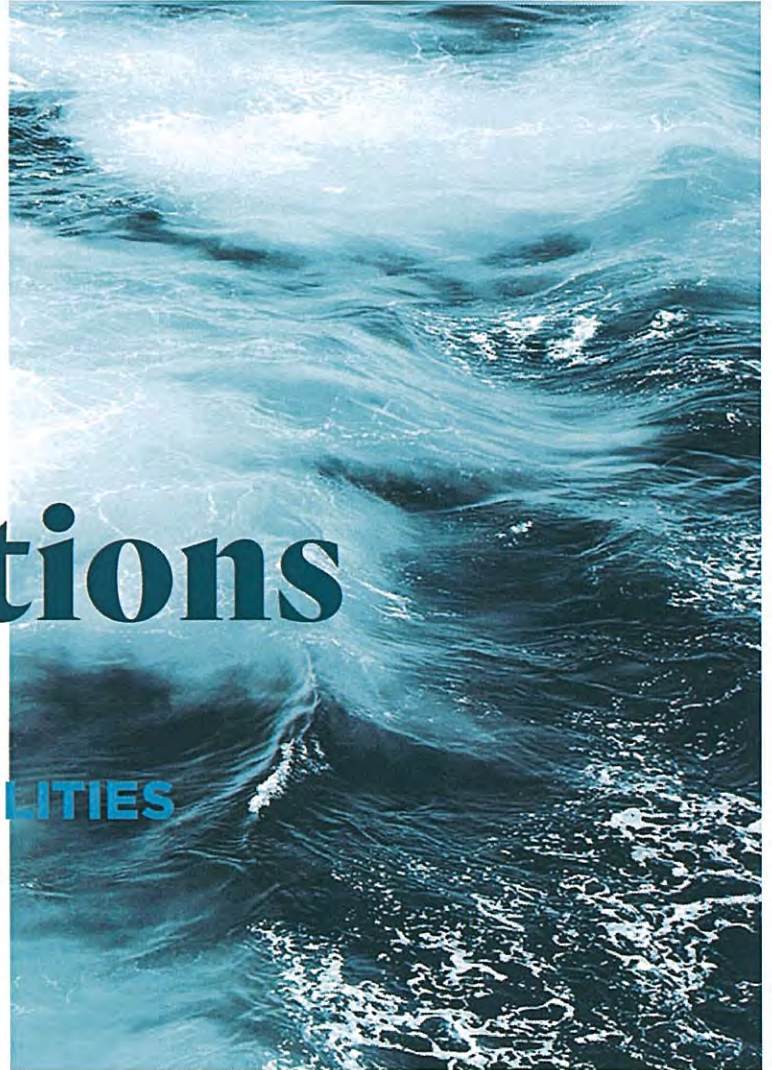
The City of Thousand Oaks (City) engaged Raftelis to conduct a comprehensive water and wastewater rate study to develop a financial plan to ensure financial sufficiency, particularly with regard to the City's large upcoming replacement and refurbishment (R&R) projects and the increasing cost of its water supply from Calleguas Municipal Water District. Raftelis incorporated these requirements into the financial plan model which included the ability to pass through the increased costs of water supply to the City's customers, in accordance with AB 2020 and other regulations. This feature of the financial model was used to the decision-making process for determining how to mitigate the financial risk associated with the uncertainty of water supply costs. To address the City's future R&R requirements, Raftelis worked with the City's engineering consultant to synchronize the timing of the asset management plan as developed by the consultant with the timing of the City's rate revenue. The City was due for a cost of service analysis, and Raftelis evaluated nexus requirements for the wastewater enterprise and developed wastewater rates based on the costs associated flows, strengths (Total Suspended Solids and Biochemical Oxygen Demand), and customer service costs. The City billed its wastewater customers on a service-unit as opposed to the more common EDU basis. In setting the wastewater rates, Raftelis followed the City's preference in adhering to the service-unit format for charging rates by revising the service-unit definition as opposed to converting rates to an EDU basis.

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Qualifications

**RAFTELIS IS THE
TRUSTED ADVISOR TO UTILITIES
AND THE PUBLIC SECTOR.**

+ Visit www.raftelis.com to learn more



Raftelis provides utilities and public-sector organizations with insights and expertise to help them operate as high-performing, sustainable entities providing essential services to their citizens. We help our clients solve their finance, organizational, and technology challenges, achieve their objectives, and, ultimately, make their communities better places to live, work, and play.

THE DISTRICT
& RAFTELIS

The Right Fit

We believe that Raftelis is the right fit for this project. We provide several key factors that will benefit the District and help to make this project a success.



RESOURCES & EXPERTISE

This project will require the resources necessary to effectively staff the project, and the skillsets to complete all of the required components.

With more than 80 consultants, Raftelis has the largest water-industry financial and rate consulting practice in the nation. Our depth of resources will allow us to provide the District with the technical expertise necessary to meet your objectives. In addition to having many of the industry's leading rate consultants, we also have experts in key related areas, like stakeholder engagement and data analytics, to provide additional insights as needed.



DEFENSIBLE RECOMMENDATIONS

When your elected officials and customers are considering the validity and merit of recommended changes, they want to be confident that they were developed by experts using the latest industry standard methodology.

Our senior staff are involved in shaping industry standards by chairing various committees within the AWWA and WEF. Raftelis' staff members have also co-authored many industry standard books regarding utility financial planning and rate setting. Being so actively involved in the industry will allow us to keep the District informed of emerging trends and issues, and to be confident that our recommendations are insightful and founded on sound industry principles. In addition, with Raftelis' registration as a Municipal Advisor, you can be confident that we are fully qualified and capable of providing financial advice related to all aspects of utility financial planning in compliance with federal regulations.



HISTORY OF SIMILAR SUCCESSES

An extensive track record of past similar work will help to avoid potential pitfalls on this project and provide the know-how to bring it across the finish line.

Raftelis staff have assisted 1,000+ utilities throughout the U.S. with financial and rate consulting services, with wide-ranging needs and objectives. Our extensive experience will allow us to provide innovative and insightful recommendations to the District, and will provide validation of the Agency’s long-term financial plan ensuring that industry best practices are incorporated.



USER-FRIENDLY MODELING

A modeling tool that your staff can use for scenario analysis and financial planning now and into the future will be key for the District going forward.

Raftelis has developed some of the most sophisticated yet user-friendly financial/rate models available in the industry. Our models are tools that allow us to examine different policy options and cost allocations and their financial/customer impacts in real time. Our models are non-proprietary and are developed with the expectation that they will be used by the client as a financial planning tool long after the project is complete.



EXPERTS ON CALIFORNIA REGULATORY REQUIREMENTS

This expertise will allow the District to be confident that our recommendations take into account all of these regulatory requirements.

The regulatory environment in California has become more stringent due to Proposition 218. Besides developing well thought out financial plans, Raftelis staff are very knowledgeable about these regulations and have made presentations on this subject at various industry conferences. In addition, we are frequently called on to be expert witnesses regarding these regulatory matters.

26 years
serving the
utility industry

Our team includes

80+ consultants
focused on utility finance/
organization/technology

8 current and previous
AWWA and WEF committee
and division chairs

14 members of
AWWA, WEF, and NACWA
utility finance and management committees

Raftelis has provided financial/organizational assistance for

1,000+ water/wastewater/
stormwater
utilities

which serve more than

25% of the
U.S. population

and includes the utilities serving

33 of the nation's
50 largest cities

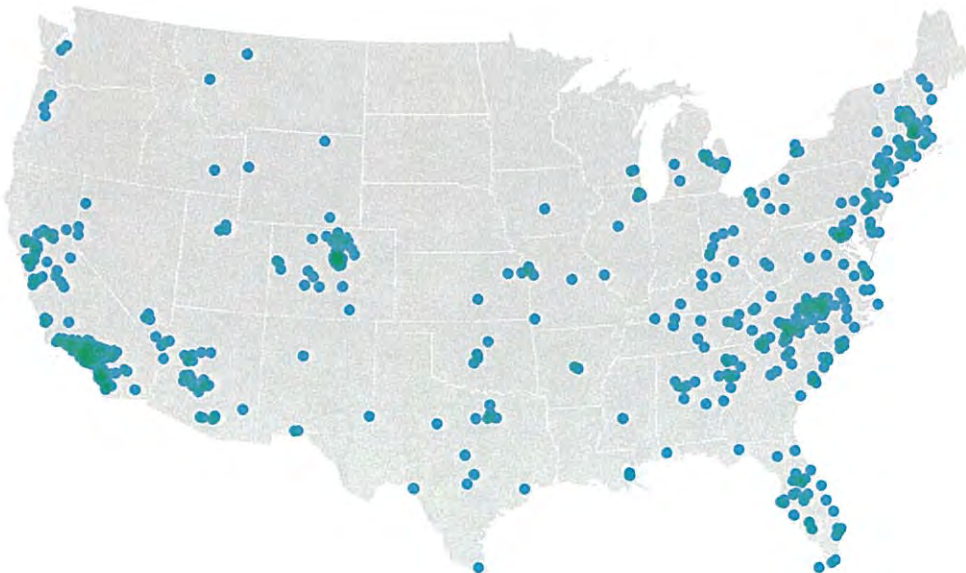
In the past year alone, we worked on

600+ projects for **400+** utilities in **40** states

Experience

RAFTELIS HAS THE MOST EXPERIENCED UTILITY FINANCIAL AND MANAGEMENT CONSULTING PRACTICE IN THE NATION.

Our staff have assisted more than 1,000 utilities across the U.S., including some of the largest and most complex agencies in the nation. In the past year alone, Raftelis worked on more than 600 financial/organizational/technology consulting projects for over 400 water, wastewater, and/or stormwater utilities in 40 states, the District of Columbia, and Canada.



Raftelis has provided financial/organizational/technology assistance to utilities serving more than

25%

of the U.S. population.

This map and the matrix on the following page shows some of the utility clients that we have assisted. Description examples of our work are provided in the References section.

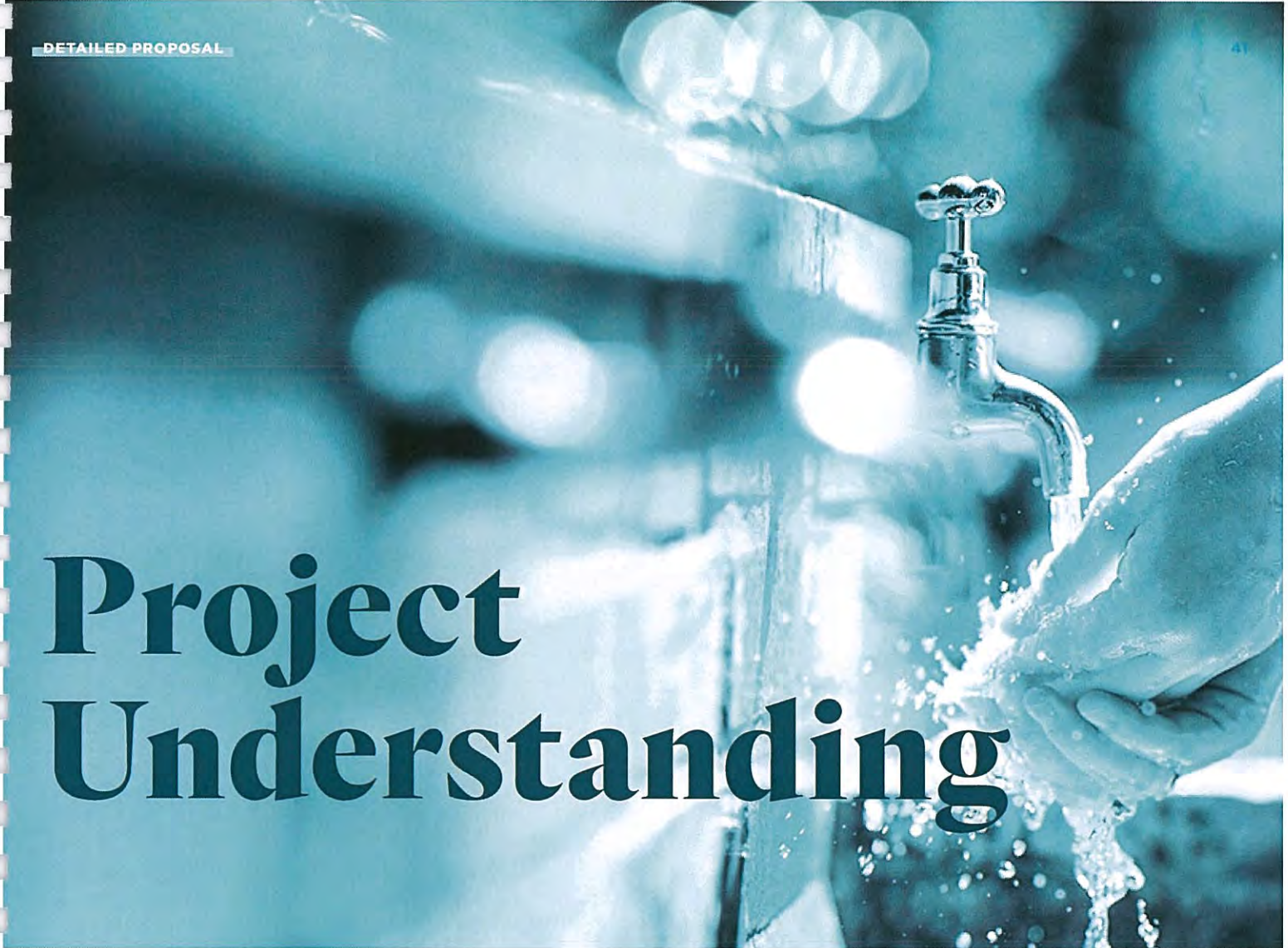
CALIFORNIA EXPERIENCE

This table lists the California utilities that Raftelis has assisted over the past five years on financial, rate, and/or management consulting projects.

Client	Affordability Analysis & Program Development	Debt Issuance Support	Dispute Resolution	Financial and Capital Improvements Planning	Rate Case Support	Rate Design	Risk Analysis	Cost of Service	Development / Impact Fees	Stormwater Utility Development	Organizational Optimization	Water/Wastewater Utility Valuation
Alameda County Water District		●		●		●	●	●	●			
Anaheim, City of				●		●	●	●				
Arroyo Grande, City of				●		●	●	●				
Atwater, City of				●	●	●	●	●				
Bakersfield, City of		●		●		●		●				
Benicia, City of									●			
Beverly Hills, City of		●		●		●	●	●	●		●	
Borrego Water District			●	●		●						
Brea, City of				●		●		●				
Brentwood (CA), City of				●		●	●	●				
CAL FIRE/San Luis Obispo								●				
Calleguas Municipal Water District		●		●		●	●	●				
Camarillo, City of		●		●		●		●	●			
Carlsbad Municipal Water District		●		●		●	●	●				
Casitas Municipal Water District				●		●		●				
Castaic Lake Water Agency			●	●		●	●	●	●			
Central Basin Municipal Water District		●		●			●	●				
Central Contra Costa Sanitary District				●		●		●				
Channel Islands Beach Community Services District				●		●		●				
Chino Hills, City of				●		●		●				
Chino, City of				●		●		●				
Chowchilla, City of				●		●	●	●				
Corona, City of						●			●			
County of San Diego				●				●		●		
Crescenta Valley Water District				●		●		●				
Cucamonga Valley Water District				●		●						
Del Mar Union School District		●										
Delta Diablo Sanitation District											●	
East Bay Municipal Utility District				●				●	●			
East Orange County Water District				●		●		●	●			
East Valley Water District				●		●	●	●				
Eastern Municipal Water District				●								
El Toro Water District				●		●		●				
Elk Grove Water District	●			●		●	●	●	●			
Elsinore Valley Municipal Water District				●		●		●	●			
Escondido, City of		●		●		●	●	●	●			
Galt, City of		●		●		●		●	●			
Glendora, City of						●						
Goleta Water District				●		●	●	●				
Goleta West Sanitary District			●	●		●	●	●	●			
Helix Water District				●		●		●				
Henderson, City of				●		●		●	●			
Hollister, City of				●		●		●	●			
Holtville, City of				●				●				
Huntington Beach, City of				●		●	●	●				
Imperial County				●		●		●				
Inland Empire Utilities Agency				●								

Client	Affordability Analysis & Program Development	Debt Issuance Support	Dispute Resolution	Financial and Capital Improvements Planning	Rate Case Support	Rate Design	Risk Analysis	Cost of Service	Development / Impact Fees	Stormwater Utility Development	Organizational Optimization	Water/Wastewater Utility Valuation
Irvine Unified School District		●										
Jurupa Community Services District				●		●	●	●				
Kern County Water Agency					●							
La Canada Irrigation District				●		●		●				
La Habra Heights County Water District				●		●	●	●	●			
Laguna Beach, City of				●								
Lake Valley Fire Protection District				●			●	●				
Las Virgenes Municipal Water District				●		●		●				
Leucadia Wastewater District				●		●		●				
Livermore, City of				●		●		●	●			
Long Beach City of	●	●		●		●		●	●			
Los Alamos Community Services District		●		●		●		●	●			
Los Angeles Department of Water and Power						●		●				
Los Angeles, City of Bureau of Sanitation					●							
Madera, City of		●		●								
Mammoth Community Water District				●		●		●				
Marin Municipal Water District					●							
Merced, City of				●		●		●	●			
Mesa Water District				●				●				
Metropolitan Water District of Southern California			●									
Modesto Irrigation District						●		●		●		
Mojave Water Agency				●		●	●	●				
Monterey County Water Resources Agency				●		●		●				
Monterey, City of		●		●		●	●					
Moulton Niguel Water District									●			
Municipal Water District of Orange County					●			●				
Napa Sanitation District				●		●		●				
Ojai Valley Sanitary District				●		●		●				
Olivenhain Municipal Water District				●		●	●					
Ontario Municipal Utilities Company								●				
Ontario, City of				●		●	●	●				
Orange, City of				●		●		●				
Palo Alto, City of				●		●	●	●				
Phelan Pinon Hills Community Services District	●			●		●		●	●			
Placer County Water Agency					●			●				
Pleasant Hill Recreation & Park District				●				●				
Pomona, City of				●		●		●	●			
Rainbow Municipal Water District				●		●	●	●				
Ramona Municipal Water District				●		●		●				
Rancho California Water District						●	●	●	●			
Redlands, City of				●		●	●	●	●			
Rincon del Diablo Municipal Water District				●		●		●				
Riverside Public Utilities				●		●	●	●	●			
Roseville, City of		●		●					●			
Sacramento Regional County Sanitation District						●						
Sacramento, City of				●		●		●		●		
Salton Community Services District				●				●				

Client	Affordability Analysis & Program Development	Debt Issuance Support	Dispute Resolution	Financial and Capital Improvements Planning	Rate Case Support	Rate Design	Risk Analysis	Cost of Service	Development / Impact Fees	Stormwater Utility Development	Organizational Optimization	Water/Wastewater Utility Valuation
San Bernardino Valley Municipal Water District						●						
San Bernardino, County of				●		●		●	●			
San Clemente, City of				●		●	●	●	●			
San Diego, City of Public Utilities Department		●	●	●		●	●	●	●			
San Dieguito Water District				●		●		●	●			
San Elijo Joint Powers Authority				●	●	●	●	●	●			
San Gabriel County Water District				●		●		●	●			
San Gabriel, City of				●		●		●	●			
San Jose, City of								●		●		
San Juan Capistrano, City of				●		●	●	●	●			
Santa Ana, City of								●	●			
Santa Barbara, City of				●		●	●	●	●			
Santa Clara Valley Water District			●	●	●	●		●	●			
Santa Clarita Water District		●		●		●	●	●	●			
Santa Cruz, City of				●		●	●	●	●			
Santa Fe Irrigation District				●		●	●	●	●			
Santa Fe Springs, City of				●		●		●	●			
Santa Margarita Water District				●		●	●	●	●			
Santa Rosa, City Attorney's Office									●			
Scotts Valley Water District		●		●		●	●	●	●			
Shafter, City of				●		●		●	●			
Shasta Lake, City of				●		●	●	●	●			
Sierra Madre, City of	●			●		●		●	●			
Signal Hill, City of				●		●		●	●			
Simi Valley, City of				●		●	●	●	●			
Sonoma, City of				●		●		●	●			
South Mesa Water Company				●		●	●	●	●			
South Pasadena, City of				●		●		●	●			
South San Francisco, City of				●		●		●	●			
Sunnyslope County Water District				●		●	●	●	●			
Sweetwater Authority				●		●		●	●			
Temescal Valley Water District				●		●		●	●			
Thousand Oaks, City of				●		●	●	●	●			
Torrance, City of				●		●		●	●			
Trabuco Canyon Water District				●		●		●	●			
Triunfo Sanitation District				●		●		●	●			
Tustin, City of				●		●		●	●			
Union Sanitary District				●		●	●	●	●			
Ventura Regional Sanitation District				●		●		●	●			
Ventura, City of	●	●	●	●	●	●	●	●	●			
Vista, City of				●		●		●	●			
Walnut Valley Water District				●		●		●	●			
Watsonville, City of	●			●		●	●	●	●			
West Basin Municipal Water District				●		●	●	●	●			
Western Municipal Water District				●		●		●	●			
Yorba Linda Water District				●		●		●	●			
Zone 7 Water Agency				●		●		●	●			



Project Understanding

In 2014, the Las Virgenes Municipal Water District (District) engaged Raftelis to conduct a cost of service study for its potable water, recycled water, and sanitation (wastewater) enterprises. The District had previously determined water-budget-based rates for both potable and recycled water use would best serve its objective of increasing water use efficiency. The District then wanted to create a complementary structure for the sanitation enterprise based on the indoor water use allocation. The District approved a five-year water-budget-based rate schedule for fiscal years (FY) 2016-2020. In the following years, Raftelis worked with

the District to develop new capacity fees and miscellaneous fees as well as completing a cost allocation plan (CAP) that re-evaluated the cost of general administrative support to each enterprise. The District would now like to integrate the results of this CAP into its long-term financial plan and cost of service for each enterprise. The District wishes to conduct a study that continues the efforts of the 2014 study by conducting new analyses by update the financial plan, cost of service, and water-budget-based rates. Additionally, the District is considering conducting an education and outreach effort to educate customers about

water budgets and provide them with a bill calculation tool.

In summary, the District wishes to:

- Conduct cost of service analyses that clearly distinguish between fixed and variable costs while establishing the nexus between the cost to serve customers and the responsibility of each customer class, per Proposition 218 requirements.
- Develop a financial plan for each enterprise fund that meets the enterprises' revenue requirements, including operations and maintenance (O&M) and the District Infrastructure Improvement Plan (IIP),

while adequately funding reserves in accordance with industry best practices and meeting debt coverage requirements.

- Develop rates for each enterprise that continue to utilize water budgets and meet the requirements of Propositions 26 and 218 and while encourage commercial growth in the District.
- Ensure clear and adequate conveyance of the important steps and takeaways of the study to the Board of Directors and the District's customers through Board meeting presentations, public outreach materials, and community outreach events.

Scope of Services

SECTION A

General – Project Initiation, Project Management, and Data Collection

At the beginning of the study, Raftelis will prepare a detailed data request list that will identify the information needed to complete the various analyses for all phases of the study. This includes historical and current revenues, usage, expenses, reserve policies, billing and collection procedures, customer account information, capital improvement plans, estimated growth in the District, and any projected changes in demand either through growth or through reduced water demands. Prior to the kick-off meeting, Raftelis will perform a preliminary review of the initial data.

We believe a productive kick-off meeting is the most effective way to begin a study of this nature. It provides a forum to discuss goals and objectives, policies, and methodologies, to finalize the work schedule to ensure that the project progresses as smoothly as possible. Raftelis will prepare a meeting agenda and send it to the District prior to the meeting. Following the

meeting, Raftelis will prepare detailed meeting minutes.

An important part of the kick-off meeting will be a discussion of policy objectives. Raftelis will lead a policy discussion on the different objectives identified in this study. The District has determined that it would like revenues to be resilient with fluctuations in demand, by recovering more revenue through the fixed charge as a priority. The District has also indicated that it would like commercial rates to support business growth in the area. Additionally, the District would like to discuss adequate funding of reserves and the IIP. We will also discuss the District's reserve policies and examine the health of the reserves. We will incorporate any preliminary recommendations into the models during the study. We will also discuss any other applicable objectives such as affordability for essential use, minimization of customer impacts, simplicity and customer understanding.

Our management approach stresses transparency, communication, teamwork, objectivity, and accountability to meeting project objectives. Management responsibilities extend to general administrative duties

such as client correspondence, billing, project documentation, and administration of the Study control plan. Throughout the study, the Raftelis Team will schedule interim status webinars to discuss project progress, the project schedule and present preliminary results. The Project Team will also conduct face-to-face meetings as outlined in the scope.

In every project, we implement a systematic program of quality assurance to ensure consistency, accuracy, and validity. Our proposed Technical Reviewer, Kevin Kostiuk, will ensure that the cost of service and rate model developed is functioning properly and is based on sound rate-making principles and standard industry practice. Additionally, he will ensure the report is prepared to address the nexus between costs and rates that meet the requirements of the San Juan Capistrano decision. The District can be confident that all of our work products will be of the highest quality and meet or exceed the standards that our clients have come to expect from Raftelis.

Meeting: One on-site kick-off meeting

Deliverables: Data request list; Kick-off meeting agenda, presentation

materials, and meeting minutes

SECTION B

Cost of Services

The cost of service analysis for the water enterprises will be based on industry standards and methodologies approved by the AWWA and described in their *Manual M1* for the Water Enterprise and WEF's *Manual of Practice No. 27 for the Sewer Enterprise* (which were both co-authored by Raftelis staff). Cost allocations among customer classes for water will likely be based on the AWWA-approved Base-Extra Capacity approach, which focuses on the different usage patterns (or peaking factors) demonstrated by each customer class.

Since the District wishes to maintain its water-budget-based rates, we will first review customer class usage patterns and determine customer classifications. Raftelis will review and analyze historical water consumption, revenue records, and billing summaries to determine water usage and peaking characteristics by customer class or subclass. We will then estimate the relative responsibility of

each customer class for each of the functional cost elements. This updated allocation will be based on billing summary data, other locally available data which may be applicable, and Raftelis's experience with other utilities exhibiting similar usage characteristics and patterns. It will also entail an assessment of the current budgets and their efficacy, including the commercial water rates' sensitivity to business growth. It will provide the basis for equitable cost allocations to each customer class or subclass.

Based on the revenue requirement identified in the financial plan, water expenses, such as the purchase, treatment, and distribution of water, are allocated to cost causation components, including supply, delivery, capacity-related costs, commodity costs, customer costs, conservation costs, and other direct and indirect costs consistent with industry standards. Wastewater expenses are allocated based on collection, strength, infiltration and inflow, and customer costs consistent with industry standards. The goal of this task is to equitably distribute the cost components to customer classes based on the cost responsibility of each. The result is the total cost to serve each customer class and is used as the basis to develop rates.

Throughout the potable water, recycled water, and sanitation cost allocation process, Raftelis will incorporate the District's policy considerations as well as current federal, state, and local rules and regulations such as Proposition 218.

Upon completion of this task, Raftelis will conduct a meeting with the District Board to review the preliminary results of the cost of service analysis.

This meeting is detailed in Section F but mentioned here as the District has indicated the first meeting must align with the cost of service task. Any feedback or changes made in this meeting will be incorporated into the cost of service analysis following this discussion.

Meetings: Up to four webinars with District staff; One Board meeting included in Section F

Deliverables: Cost of service analysis for each enterprise in Microsoft Excel

SECTION C Financial Analysis

This important task will ascertain the additional revenue needed to ensure the financial integrity of the utilities. It will do so by projecting the District's existing rate revenue, other operating and non-operating revenues, debt service payments, and operating and capital expenses over a ten-year period for each enterprise. We will project future yearly O&M expenses, such as annual water purchase costs, salaries and benefits, power, and materials using District-approved inflationary assumptions. Raftelis' models include a dashboard that allows for easy manipulation of water demand assumptions for comparison of revenues under different usage scenarios. We can work with District staff to examine different demand scenarios under this legislation or any other scenarios that affect demand.

Raftelis will also review reserve policies initially discussed in the kick-off meeting to recommend appropriate reserve

balances that are consistent with industry standards for prudent fiscal management as well as the District's risk tolerance. The ten-year financial plan for each utility will also model the sources and uses of funds for each reserve. For a typical capital reserve, the sources of funds include cash reserves, debt proceeds, and grant funding. Modelling the yearly ending balance in the capital reserves allows staff to determine the rate impacts of various IIP scenarios and assess the proper use of debt and reserves to fund capital projects.

Raftelis will develop a ten-year cash flow analysis for the potable water, recycled water, and sewer services to determine the revenue adjustments needed for each while minimizing sharp rate fluctuations. The dashboard will allow users to vary assumptions, so the user can display the effects of revenue adjustments, capital financing through rates or debt, and reserve balances. A snapshot of a sample dashboard is shown on the following page. Several features of the model's dashboard include the ability to show or indicate:

- Revenue adjustments needed for the next five years to meet debt coverage, fund capital projects, and reserves
- Reserve balances and reserve targets as well as debt service coverage ratios (days cash on hand, reserve funding levels)
- Projected operating costs and revenue streams
- Operating cost break down (O&M, water purchases, debt payments)
- Different capital funding sources such as PAYGO (rate funding), debt financing

District staff can review and determine the most appropriate

financial plan and rate design. We design our models to be easy to understand and show the utility's sensitivity to various assumptions. This allows both staff and the Board to make informed decisions.

As with the cost of service analysis, we will conduct a meeting with the District Board to review the financial plan, receive feedback, and incorporate any changes into the model. This task is again detailed in Section F but mentioned here to align with the District's schedule of Board meetings.

Meetings: Up to four webinars with District staff; One Board meeting included in Section F

Deliverables: Financial plan models for all three enterprises in Microsoft Excel

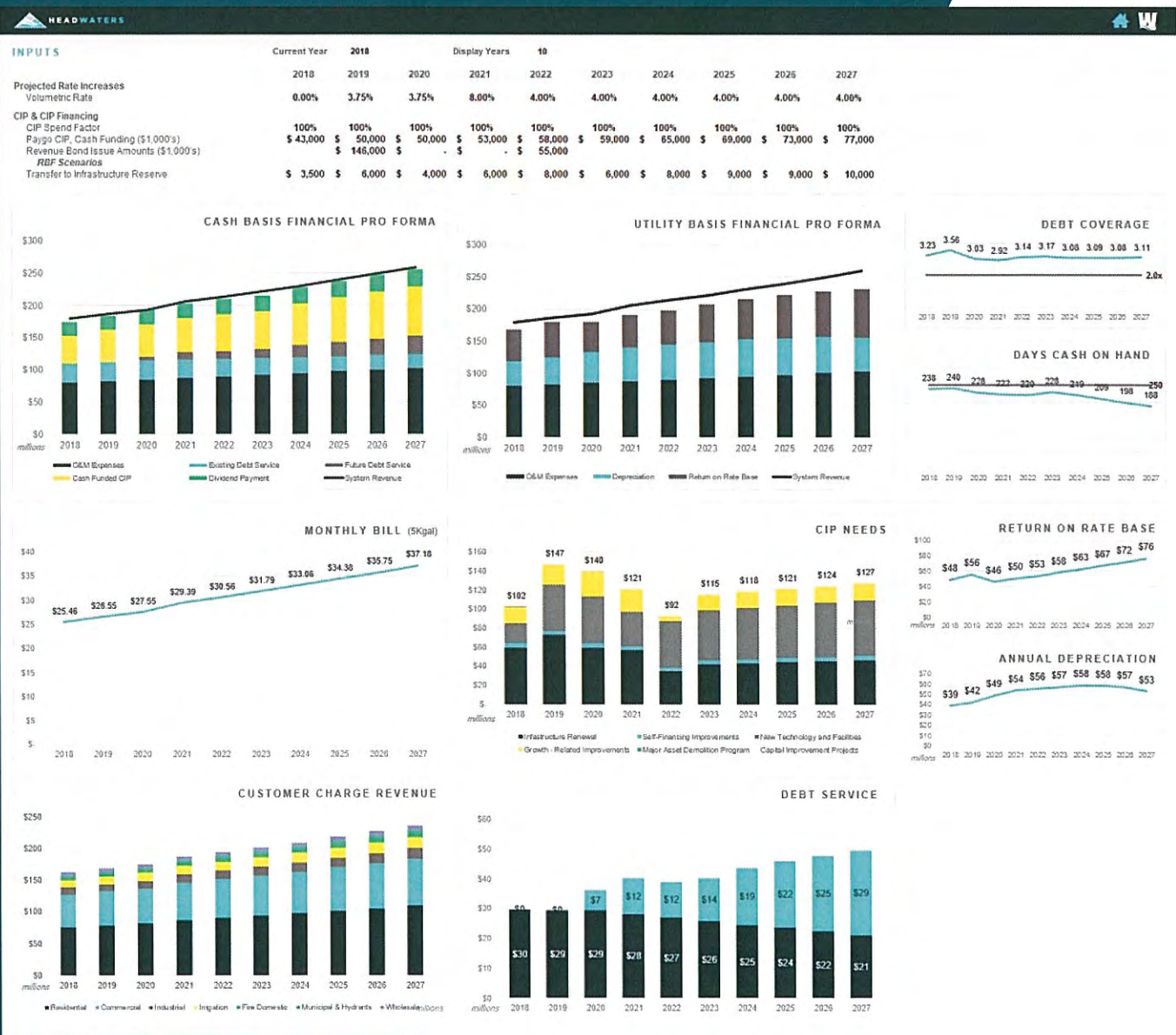
SECTION D Proposed Rates

Section D.1: Rate Design Rates Development

Raftelis will develop potable water, recycled water, and wastewater rate models based on the potable and recycled water use budgets, which take into account household size, indoor vs. outdoor usage, and other factors which determine essential needs. Specifically, the District has asked that the commercial budget-based rate structure be reviewed to encourage business growth. We will also review the recycled water tiers to see if adjustments can be made to account for the availability of recycled water during different seasons. As indicated by the District, excess recycled water during the winter is currently discharged into Malibu Creek while shortfalls in

Raftelis will develop a customized financial model for the District that incorporates a dashboard to allow the District to easily run scenarios and see the impacts in real time.

Shown below is a sample dashboard that we developed for another project.



supply during the summer are supplemented by potable water. The District would also like the rates to ensure the financial capacity to increase the reliability of the recycled water system. Finally, the District wishes to maintain the current sanitation rate structure and ensuring the rates reflect customers' demand on the system. While developed rates aim to ensure fiscal sustainability, additional focus will be placed on affordability for efficient usage and conservation.

The model will be developed with the flexibility to change tier widths based on water budget allocation factors. Water supply rates in tiers 1 (indoor allocation) and 2 (outdoor allocation) are associated with low water supply costs, and higher tiers are associated with the higher cost water sources that must be utilized to accommodate excess water use and conservation programs. This build-up cost approach for deriving the rate for each tier develops the rationale for the tiered rates and meets the requirements of Proposition 218.

Customer Impacts and Sensitivity Analysis

Rate adjustments stem from a change in the revenue requirement, and/or a change in the rate structure. The total rate adjustment can sometimes cause "rate shock" to customers. In our impact analysis graphics, we calculate bills at each level of usage assuming the new proposed rate structure was already in place to determine the "true" impact of the new rate structure. The customer impact analysis will include a series of tables and figures that show projected rate impacts by customer class at various levels of usage. Should the District decide to move forward with the cus-



tomers education and outreach in Section E, this customer impact analysis will provide a foundation to build an interactive online tool to assess bill impacts. Understanding customer impacts and taking corrective action, if necessary, allows us to design public outreach strategies for generating customer buy-in and successful rate implementation.

Upon completion of the rate model and customer impacts analysis, Raftelis will hold a third meeting with the District Board to discuss the proposed rate structure and five-year rate schedule. In this discussion, we will review any adjustments made to the water budgets as well as the nexus of the rates and the cost to serve the customer classes in compliance with Proposition 218.

Meetings: Up to four webinars with District staff; one Board meeting included in Section F

Deliverables: Rate models and customer bill impacts for all three enterprises in Microsoft Excel

Section D.2: Rate Survey

Raftelis will compare the District's current and proposed rates with five neighboring and comparable water and wastewater agencies. We will include recycled water rates where recycled water is available. Raftelis

regularly conducts such surveys for our clients. We also publish the nationally recognized biennial *Water and Wastewater Rate Survey*, which is co-published with AWWA, and the *California-Nevada Water and Wastewater Rate Survey*, which is co-published with the CA-NV AWWA. While a useful benchmark, it is worth noting that such comparisons only paint a partial picture since many factors, such as water sources, age and replacement of infrastructure, service area, and other local conditions affect the total cost of providing water and wastewater services.

Using the rate survey data, Raftelis will develop an Excel model to compare the total monthly water and wastewater bill amount of a typical residential customer within each agency. The adjustable inputs of the model are water usage and meter size. The model will include the appropriate graphs and figures that display the total bill of a typical customer in each agency.

Meetings: None

Deliverables: Rate survey model in Microsoft Excel

Section D.3: Rate Study Report

To comply with Proposition 218 requirements, Raftelis will prepare a report documenting the rate study for all three services.

A preliminary study report will include an executive summary highlighting the major issues and decisions reached during development of rates. The main body of the report will include a brief physical description of each utility system, service area description, an overview of operation and maintenance expenses, the capital improvement plan, the financial plan, and the proposed rates. The report will also contain a discussion on rate structure selection, rate design assumptions, and methodologies used to develop the rates. The methodology describing the cost of service and rate calculations will be described in detail so that the nexus between costs and rates is clearly defined and understandable. The report will also incorporate the results of the rate survey. This first version will be submitted to staff for review and comment.

The resulting revised draft study report will be submitted for District and the District Attorney comments and edits. We will then incorporate these revisions into a draft final report that will be presented during the District Board rate workshops. After incorporating any final edits from District staff and the District Board, Raftelis will provide the final report. We will also provide a summary for public consumption.

Meetings: Three webinars with staff to discuss comments
Deliverables: Draft and Final Report

Section D.4: Proposition 218 Notice and Public Hearing

Raftelis will assist District staff to develop a Proposition 218 public hearing notice for mailing within the required 45-day noticing period prior to holding the public hearing. The notice will outline the proposed rate changes, explain the right to challenge the rates, and will meet and comply with all noticing requirements of Proposition 218. Raftelis will then present the study results at a public hearing. We will address the District Board and public questions and comments. Presentation materials will be provided to District staff beforehand for review prior to the public hearing.

Meetings: One Proposition 218 Public Hearing
Deliverables: Proposition 218 public hearing notice; public hearing presentation materials

SECTION E Customer Education and Outreach (Optional)

Ensuring that the District maintains and grows public trust as it conducts its rate analysis and implements the result is critical. At a time when the public is empowered by social media and fueled by skepticism of public processes, proactive public outreach is a key component in obtaining public understanding of rate analysis recommendations.

Proactive communication

increases community acceptance of rate changes, enhances credibility with stakeholders and policymakers, and builds awareness of the value of the service and the need for utility investments on behalf of the community. Anticipating changes to a water budget rate structure is a special communication challenge that requires experience in developing a messaging platform and tactics that will explain this change.

Raftelis can assist the District by developing a strategic communication plan that includes development of collateral educational material and online tools to ensure the public is informed and provided with tools and understands the impact to their individual bills.

Section E.1: Strategic Communications Plan

We will initiate this task with an on-site meeting with appropriate communications staff and project managers to understand communication needs, current environment and available communication channels. The strategic communication plan will accompany the final recommendations for rates and rate structure implementation and will include:

- **Situation analysis** that analyzes available customer data and includes an environmental scan of current issues that may impact customer rate change acceptance
- **Stakeholder identification and public participation mapping** to ensure key influencers are connected to the communication process and identifies special population communication needs (e.g. translation services)
- **Communication channel**

- **identification** to provide a strategy for using the District’s web site, social media, printed and electronic materials, bills, direct mail, newsletters and staffing resources if/where available
- **Messaging platform** to provide messages about why rates are changing, how the water budgets work, how the results will be implemented, and potential impacts to customers
- **Internal communication strategies** to ensure District staff are aware of the rate changes and can answer questions, provide talking points and FAQ’s for customer service staff who will be working with customers directly
- **Community outreach tactics** for key influencers such as the business community, neighborhood associations, highly impacted customer groups, etc. For example, should the District decide to implement significant changes to methodology for commercial rates to account for business growth, we will develop an approach to commercial customers and their understanding of the anticipated growth and consequential increased charges
- **Media relations and social media plan** to determine how best to leverage the District’s media relationships and social media platforms
- **Written communication development** for use in such materials as FAQ’s, infographics, website updates, bill inserts, etc.

Meetings: One on-site meeting
Deliverables: Strategic Communications Plan

Section E.2:

Online Bill Calculator

It is difficult to calculate the bill impacts of rate structure changes for individual customers when water use varies so widely. Providing an online tool to help customers calculate their individual bill will improve customer understanding and acceptance of the changes and help customers plan ahead for changes to their monthly budget. Raftelis has technology consulting staff experienced in developing customer-facing interactive tools. They will work with the District’s IT team and communications staff to develop a tool compatible with the District’s website that can be used to easily calculate the changes resulting from water budget and rate structure changes. Users will be able to enter water consumption amounts from current or prior bills to see a comparison of charges under current and proposed rates. The bill calculator will be developed to look and feel similar to the District’s overall website and source code will be delivered so that the District’s IT staff can modify it in the future if necessary.

Meetings: Conference calls, web-based sharing as needed
Deliverables: Online Bill Calculator

Section E.3: Collateral Materials

Visual representation of proposed changes in an easy to understand and accessible format can often significantly improve customer understanding of rate structure changes that may impact customer bills. Raftelis has a professional design team experienced in developing infographics, fact sheets, brochures, presentations, event displays, etc. to assist with communicating rate

and rates structure changes in print, online or in person.

Meetings: Conference calls, web-based sharing as needed

Deliverables: To be determined in collaboration with District staff

SECTION F Meeting Attendance

Section F.1: Board Meeting Attendance

As requested by the District, Raftelis will attend three Board

of Directors' meetings occurring at the completion of each of Sections B, C, and D. We have noted this in the above sections' descriptions, but the cost of these meeting will be included in Section F. For each meeting, we will provide the Board an overview of the study and the current stage of the study. We will then discuss the results and recommendations as well as any other considerations for discussion at that stage of the study. We will also address any questions the Board may have and guide them through the model to show the effects of different scenarios when necessary.

Meeting(s): Three Board of Directors' meetings, one each at the conclusion of Sections B, C, and D

Deliverables: Agenda, presentation materials, and meeting minutes

(Optional) Section F.2: Community Workshop

During the Strategic Communications Plan initiation meeting, we will discuss with District staff the need to conduct community workshops in May-June 2020 and the format of the workshops. For the purposes of this scope and fee schedule, we are including the cost and framework for one community workshop that

is structured as an open house. However, we can work with staff to determine if and how many workshops are needed and different workshop formats (e.g. presentation and Q&A session).

Raftelis will conduct a community workshop to accommodate the need for public input from customers and local businesses. Allowing for discussions in a low-conflict setting benefits the participant by providing time for discussion based on presenting the recommended rate changes in a way that is specific to the audience and benefits the District by allowing for feedback from a diverse audience of attendees rather than just a vocal minority. We propose that the workshop be provided in an appropriate, easily accessible location in the service area. It is important to set an appropriate community promise related to these workshops that input will be documented and considered prior to deciding on the recommendations. Feedback also provides another way to refine messages and test materials with consumers prior to implementing rate changes.

Raftelis will prepare and facilitate the workshop including:

- Developing presentations/display boards or an infographic for use in the workshop
- Conducting a dry-run with the staff who will interact with customers and respond to questions
- Staffing and facilitating workshop in partnership with District staff
- Gathering feedback from participants and compiling a report

Meetings: One in-person community workshop

Deliverables: Presentation materials, feedback report

Online Bill Calculator Example

Average Monthly Bill Impacts for Single Family Residential - Medium User

A single family residential medium user is representative of a majority of Thornton residences and is defined by 3,500 square feet of irrigated outdoor landscape with annual water use of 133 kgal.

	2016	2017	Change
Monthly Service Charge	\$5.64	\$5.64	\$0.00
Average Monthly Water Costs	\$51.43	\$57.84	\$6.41
Total Average Monthly Bill	\$57.07	\$63.48	\$6.41

Account Information	
Account Number	000001
Address	941 ASH CT, THORNTON, CO 80229-7718

Water Bill Comparison			
	2016	2017	Change
Winter Bill	\$19.56	\$21.30	\$1.74
Summer Bill	\$47.40	\$52.62	\$5.22

What if I use more or less water?

Desired change in usage: Calculate Change

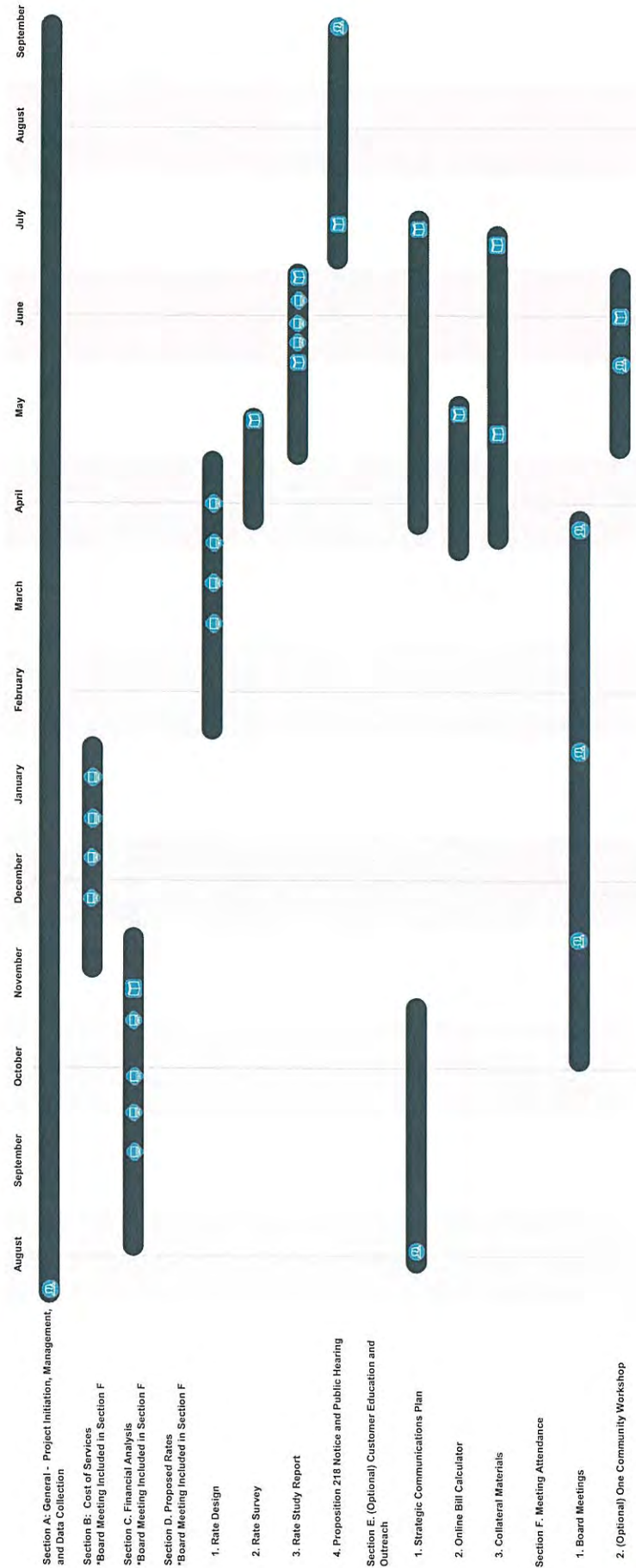
Calculated change in usage (kgal): 0.90

Calculated summer water usage and bill with 10% (0.90 kgal) change in usage.

	Rate (\$/kgal)	Base Usage (kgal)	Calculated Usage (kgal)
Tier 1 (Indoor)	\$5.22	2.97	2.97
Tier 2 (Outdoor)	\$5.22	6.03	6.93
Tier 3 (Outdoor)	\$7.83	0.00	0.00
Tier 4 (Outdoor)	\$15.66	0.00	0.00
Total Summer Usage		9.00	9.90
Usage Charge		\$46.98	\$51.68
Service Charge		\$5.64	\$5.64
2017 Summer Bill		\$52.62	\$57.32

Schedule

Raftels will complete the scope of services within the timeframe shown in the schedule below.



In-Person Meetings / Workshops
 Web Meetings
 Deliverables

Legal Issues and Potential Conflicts of Interest

Raftelis does not have any pending investigations or any enforcement, settlement, or disciplinary actions taken within the past five years against the firm or any proposed key personnel. We also do not have any conflicts of interest.

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Costs

Raftelis proposes to complete the scope of work outlined in our work plan on a time-and-materials basis as shown below. The following cost proposal provides a breakdown of the estimated level of effort required for completing each task and the hourly billing rates for the personnel scheduled to complete the project.

Tasks	Webinars	Number of Meetings	Hours								Total Fees & Expenses
			PM	TR	PR	SC	GD	Tech Services	Admin	Total	
Section A: General - Project Initiation, Management, and Data Collection	0	1	12	0	0	16	0	0	6	34	\$7,407
Section B: Cost of Services <i>*Board Meeting Included in Section F</i>	4	0	24	8	0	50	0	0	0	82	\$18,830
Section C: Financial Analysis <i>*Board Meeting Included in Section F</i>	4	0	24	8	0	72	0	0	0	104	\$23,120
Section D. Proposed Rates <i>*Board Meeting Included in Section F</i>											
1. Rate Design	4	0	24	12	0	80	0	0	0	116	\$25,560
2. Rate Survey	0	0	4	2	0	8	0	0	0	14	\$3,220
3. Rate Study Report	3	0	16	20	0	60	0	0	0	96	\$20,980
4. Proposition 218 Notice and Public Hearing	0	1	12	2	2	4	0	0	0	20	\$5,442
Section E. (Optional) Customer Education and Outreach											
1. Strategic Communications Plan	1	0	0	32	6	0	0	0	1	39	\$8,630
2. Online Bill Calculator	0	0	0	4	2	0	0	48	0	54	\$9,300
3. Collateral Materials	0	0	0	8	2	0	15	0	0	25	\$4,285
Section F. Meeting Attendance											
1. Board Meetings	0	3	36	0	0	9	0	0	0	45	\$12,921
2. (Optional) One Community Workshop	0	1	8	16	6	0	6	0	1	37	\$9,097
Total Estimated Meetings / Hours	16	6	160	112	18	299	21	48	8	666	
Hourly Billing Rate			\$295	\$210	\$240	\$185	\$125	\$155	\$80		
Total Professional Fees			\$47,200	\$23,520	\$4,320	\$55,315	\$2,625	\$7,440	\$640		\$141,060

PM - Sanjay Gaur, Vice President
 TR - Kevin Kostliuk, Senior Consultant
 PR - Melissa Elliot, Director of Strategic Communication Services
 TR (Section E) - Katie Knoll, Senior Consultant
 GD - Graphic Designer
 TS - Technical Services
 SC - Staff Consultants
 Admin - Administrative Staff

Total Fees	\$141,060
Total Expenses	\$7,733
Total Fees & Expenses	\$148,793
Primary Sections/Tasks	\$117,481
Optional Section E	\$22,215
Optional Section F-2	\$9,097

July 17, 2019

Donald Patterson
Director of Finance and Administration
Las Virgenes Municipal Water District
4232 Las Virgenes Road, Calabasas, CA 91302

Subject: Financial Analysis and Rate Study for Water, Sanitation, and Recycled Water Service Enterprise Funds

Dear Mr. Patterson:

Raftelis is pleased to present this proposal to assist Las Virgenes Municipal Water District in conducting a water, sanitation (wastewater), and recycled water financial analysis and rate study. Raftelis has the largest practice in California, and the country, specializing in financial and rate consulting for water, recycled water, and wastewater utilities. We are confident in our ability to develop a sustainable financial plan and optimal rate structure for each utility that will comply with Proposition 218 and other regulatory requirements, in addition to meeting the District's goals. We have assisted numerous agencies in California and across the United States with successfully implementing rate structures that fund capital infrastructure plans, with sensitivity to agencies' other policy concerns, such as meeting revenue requirements during periods of reduced consumption. We have conducted many similar studies including Western Municipal Water District, El Toro Water District, the City of Camarillo, and the City of Thousand Oaks.

Raftelis has assembled an experienced team to assist the District with this project. I, Sanjay Gaur, will serve as Project Manager and will ultimately be responsible for the project's success to your satisfaction. I have 20 years of public-sector consulting experience and have worked on over 200 rate studies throughout California in all aspects. I am widely considered in the industry to be one of the leading experts in the evaluation, development, and implementation of water budget-based rate structures and have conducted numerous such studies throughout the State. I have also authored a chapter about water budget rate structures in Manual M1: Principles of Water Rates, Fees and Charges, 7th Edition (Manual M1) and contributed to Water Rates, Fees, and the Legal Environment, 2nd Edition, published by the American Water Works Association (AWWA). Mr. Kevin Kostiuk will provide a critical review of the methodology and results and serve as Technical Reviewer. Mr. Kostiuk has 11 years of professional experience with a focus is in water cost of service, drought rate modelling, water budget rate structures, and groundwater fee analysis. Mr. Charles Diamond will serve as the Lead Analyst, conducting the data analysis to build the model. Staff consultants from our Los Angeles and Murrieta offices will assist us in conducting analyses and preparing project deliverables.

I have read, understood, and agree to all statements in this request for proposals and acknowledge receipt of all addendums/amendments as well as to the terms, conditions, and attachments referenced. Raftelis is committed to perform this study within the 18-month time period specified and understands that our proposal is a firm and irrevocable offer for 90 days. Raftelis is proud of the team and resources we can offer the District on this important engagement. If you have any questions, please do not hesitate to contact me.

Sincerely,



Sanjay Gaur, Vice President
Office: 213 262 9304 / Mobile: 213 327 4405 / Email: sgaur@raftelis.com

Project Understanding

In 2014, the Las Virgenes Municipal Water District (District) engaged Raftelis to conduct a cost of service study for its potable water, recycled water, and sanitation (wastewater) enterprises. The District had previously determined water-budget-based rates for both potable and recycled water use would best serve its objective of increasing water use efficiency. The District then wanted to create a complementary structures for sanitation enterprise based on the indoor water use allocation. The District approved a five-year rate water-budget-based schedule for fiscal years (FY) 2016-2020. In the following years, Raftelis worked with the District to develop new capacity fees and miscellaneous fees as well as completing a cost allocation plan (CAP) that re-evaluated the cost of general administrative support to each enterprise. The District would now like to integrate the results of this CAP into its long-term financial plan and cost of service for each enterprise. The District wishes to conduct a study that continues the efforts of the 2014 study by conducting new analyses that update the financial plan, cost of service, and water-budget-based rates. Additionally, the District is considering conducting an education and outreach effort to educate customers about water budgets and provide them a bill calculation tool.

In summary, the District wishes to:

1. Conduct Cost of Service analyses that clearly distinguishes between fixed and variable costs while establishing the nexus between the cost to serve customers and the responsibility of each class, per Proposition 218 requirements.
2. Develop a financial plan for each enterprise fund that meets the utilities' revenue requirements, including operations and maintenance (O&M) and the District Infrastructure Improvement Plan (IIP), while adequately funding reserves in accordance with industry best practices and meeting debt coverage requirements.
3. Develop rates for each enterprise that continue to utilize water budgets and meet the requirements of Propositions 26 and 218 and that encourage commercial growth in the District.
4. Ensure clear and adequate conveyance of the important steps and takeaways of the study to the Board of Directors and the District's customers through Board meeting presentations, public outreach materials, and community outreach events.

SECTION A: GENERAL – PROJECT INITIATION, PROJECT MANAGEMENT, AND DATA COLLECTION

At the beginning of the study, Raftelis will prepare a detailed data request list that will identify the information needed to complete the various analyses for all phases of the study. This includes historical and current revenues, usage, expenses, reserve policies, billing and collection procedures, customer account information, capital improvement plans, estimated growth in the District, and any projected changes in demand either through growth or through reduced water demands. Prior to the kick-off meeting, Raftelis will perform a preliminary review of the initial data, including the District's utility master plans and the Urban Water Management Plan.

We believe a productive kick-off meeting is the most effective way to begin a study of this nature. It provides a forum to discuss goals and objectives, policies, and methodologies, as well as finalize the work schedule to ensure that the project progresses as smoothly as possible. Raftelis will prepare a meeting agenda and send it to the District prior to the meeting. Following the meeting, Raftelis will prepare detailed meeting minutes.

An important part of the kick-off meeting will be a discussion of policy objectives. Raftelis will lead a policy discussion on the different objectives identified in this study. The District has determined that it would like revenues to be resilient with fluctuations in demand, by recovering more revenue through the fixed charge as a priority. The District has also indicated that it would like commercial rates to support business growth in the area. The Request for Proposals also indicates the District would like to discuss adequate funding of reserves and the IIP. We will also discuss the District's reserve policies and examine the health of the reserves. We will incorporate any preliminary recommendations into the models during the study. We will also discuss any other applicable objectives such as affordability for essential use, minimization of customer impacts, simplicity and customer understanding.

Our management approach stresses transparency, communication, teamwork, objectivity, and accountability to meeting project objectives. Management responsibilities extend to general administrative duties such as client correspondence, billing, project documentation, and administration of the Study control plan. Throughout the study, the Raftelis Team will schedule interim status webinars to discuss project progress, the project schedule and present preliminary results. The Project Team will also conduct face-to-face meetings as outlined in the scope.

In every project, we implement a systematic program of quality assurance to ensure consistency, accuracy, and validity. Our proposed Technical Reviewer, Kevin Kostiuk, will ensure that the cost of service and rate model developed is functioning properly and is based on sound rate-making principles and standard industry practice. Additionally, he will ensure the report is prepared to address the nexus between costs and rates that meet the requirements of the San Juan Capistrano decision. This will guarantee that all of our work products will be of the highest quality and meet or exceed the standards that our clients have come to expect from Raftelis.

Meetings: One on-site kick-off meeting

Deliverables: Data request list; Kick-off meeting agenda, presentation materials, and meeting minutes

SECTION B. COST OF SERVICES

The cost of service analysis for the water enterprises will be based on industry standards and methodologies approved by the AWWA and described in their Manual M1 for the Water Enterprise and WEF's *Manual of Practice No. 27* for the Sewer Enterprise (which were both co-authored by Raftelis staff). Cost allocations among customer classes for water will likely be based on the AWWA-approved Base-Extra Capacity approach, which focuses on the different usage patterns (or peaking factors) demonstrated by each customer class.

Since the District wishes to maintain its water-budget-based rates, we will first review customer class usage patterns and determine customer classifications. Raftelis will review and analyze historical water consumption, revenue records, and billing summaries to determine water usage and peaking characteristics by customer class or subclass. We will then estimate the relative responsibility of each customer class for each of the functional cost elements. This updated allocation will be based on billing summary data, other locally available data which may be applicable, and Raftelis's experience with other utilities exhibiting similar usage characteristics and patterns. It will also entail an assessment of the current budgets and their efficacy, including the commercial water rates' sensitivity to business growth. It will provide the basis for equitable cost allocations to each customer class or subclass.

Based on the revenue requirement identified in the financial plan, water expenses, such as the purchase, treatment, and distribution of water, are allocated to cost causation components, including supply, delivery, capacity-related costs, commodity costs, customer costs, conservation costs, and other direct and indirect costs consistent with industry standards. Wastewater expenses are allocated based on collection, strength, infiltration and inflow, and customer costs consistent with industry standards. The end goal of this task is to equitably distribute the cost components to customer classes based on the cost responsibility of each. The result is the total cost to serve each customer class and is used as the basis to develop rates.

Throughout the potable water, recycled water, and sanitation cost allocation process, Raftelis will incorporate the District's policy considerations as well as current federal, state, and local rules and regulations such as Proposition 218.

Upon completion of this task, Raftelis will conduct a meeting the District Board to review the preliminary results of the cost of service analysis. This meeting is detailed in Section F but mentioned here as the District has indicated the first meeting must align with the Cost of Service task. Any feedback or changes made in this meeting will be incorporated into the cost of service analysis following this discussion.

Meetings: Up to four webinars with District staff; One Board meeting included in Section F

Deliverables: Cost of service analysis for each enterprise in Microsoft Excel

SECTION C. FINANCIAL ANALYSIS

This important task will ascertain the additional revenue needed to ensure the financial integrity of the utilities. It will do so by projecting the District's existing rate revenue, other operating and non-operating revenues, debt service payments, and operating and capital expenses over a ten-year period for each enterprise. We will project future yearly O&M expenses, such as annual water purchase costs, salaries and benefits, power, and materials using District-approved inflationary assumptions. Raftelis' models include a dashboard that allows for easy manipulation of water consumption assumptions for comparison of revenues under different usage scenarios. We can work with District staff to examine different demand scenarios under this legislation or any other scenarios that affect demand.

Raftelis will also review reserve policies initially discussed in the kick-off meeting to recommend appropriate reserve balances that are consistent with industry standards for prudent fiscal management as well as the District's risk tolerance. The ten-year financial plan for each utility will also model the sources and uses of funds for each reserve. For a typical capital reserve, the sources of funds include cash reserves, debt proceeds, and grant funding. Modelling the yearly ending balance in the capital reserves allows staff to determine the rate impacts of various IIP scenarios and assess the proper use of debt and reserves to fund capital projects.

Raftelis will develop a ten-year cash flow analysis for the potable water, recycled water, and sewer services to determine the revenue adjustments needed for each while minimizing sharp rate fluctuations. The dashboard will allow users to vary assumptions, so the user can display the effects of revenue adjustments, capital financing through rates or debt, and reserve balances. A snapshot of a sample dashboard is shown on the following page. Several features of the model's dashboard include the ability to show or indicate:

1. Revenue adjustments needed for the next five years to meet debt coverage, fund capital projects, and reserves

2. Reserve balances and reserve targets as well as debt service coverage ratios (days cash on hand, reserve funding levels)
3. Projected operating costs and revenue streams
4. Operating cost break down (O&M, water purchases, debt payments)
5. Different capital funding sources such as PAYGO (rate funding), debt financing

District staff can review and determine the most appropriate financial plan and rate design. We design our models to be easy to understand and show the utility's sensitivity to various assumptions. This allows both staff and the Board to make informed decisions.



As with the cost of service analysis, we will conduct a meeting with the District Board to review the financial plan, receive feedback, and incorporate any changes into the model. This task is again detailed in Section F but mentioned here to align with the District's schedule of Board meetings.

Meetings: Up to four webinars with District staff; One Board meeting included in Section F

Deliverables: Financial plan models for all three enterprises in Microsoft Excel

SECTION D. PROPOSED RATES

Section D.1: Rate Design

Rates Development

Raftelis will develop potable water, recycled water, and wastewater rate models based on the potable and recycled water use budgets, which take into household size, indoor vs. outdoor usage, and other factors which determine essential needs. Specifically, the District has asked that the commercial budget-based rate structure be reviewed to encourage business growth. We will also review the recycled water tiers to see if adjustments can be made to take into account the availability of recycled water during different seasons. As indicated by the District, excess recycled water during the winter is currently discharged into Malibu Creek while shortfalls in supply during the summer are supplemented by potable water. The District would also like the rates to ensure the financial capacity to increase the reliability of the recycled water system. Finally, the District wishes to maintain the current sanitation rate structure and ensuring the rates reflect customers' demand on the system. While developed rates aim to ensure fiscal sustainability, additional focus will be placed on affordability for efficient usage and conservation.

The model will be developed with the flexibility to change tier widths based on water budget allocation factors. Water supply rates in tiers 1 (indoor allocation) and 2 (outdoor allocation) are associated with low water supply costs, and higher tiers are associated with the higher cost water sources that must be utilized to accommodate excess water use and conservation programs. This build-up cost approach for deriving the rate for each tier develops the rationale for the tiered rates and meets the requirements of Proposition 218.

Customer Impacts and Sensitivity Analysis

Rate adjustments stem from a change in the revenue requirement, and/or a change in the rate structure. The total rate adjustment can sometimes cause “rate shock” to customers. In our impact analysis graphics, we calculate bills at each level of usage assuming the new proposed rate structure was already in place to determine the “true” impact of the new rate structure. The customer impact analysis will include a series of tables and figures that show projected rate impacts by customer class at various levels of usage. Should the District decide to move forward with the customer education and outreach in Section E, this customer impact analysis will provide a foundation to build an interactive online tool to assess bill impacts. Understanding customer impacts and taking corrective action, if necessary, allows us to design public outreach strategies for generating customer buy-in and successful rate implementation.

Upon completion of the rate model and customer impacts analysis, Raftelis will hold a third meeting with the District Board to discuss the proposed rate structure and five-year rate schedule. The discussion will include a focus on the incorporation of water budgets to the District’s rate design, as well as compliance with Propositions 26 and 218 in establishing the relationship with the cost of service analysis.

Meetings: Up to four webinars with District staff; One Board meeting included in Section F

Deliverables: Rate models and customer bill impacts for all three enterprises in Microsoft Excel

Section D.2: Rate Survey

Raftelis will compare the District’s current and proposed rates with five neighboring and comparable water and wastewater agencies. We will include recycled water rates where recycled water is available. While a useful benchmark, it is worth noting that such comparisons only paint a partial picture since many factors, such as water sources, age and replacement of infrastructure, service area, and other local conditions affect the total cost of providing water and wastewater services. Raftelis regularly conducts such surveys for our clients. We also publish the nationally recognized biennial *Water and Wastewater Rate Survey*, which is co-published with AWWA, and the *California-Nevada Water and Wastewater Rate Survey*, which is co-published with the CA-NV AWWA.

Using the rate survey data, Raftelis will develop an Excel model to compare the total monthly water and wastewater bill amount of a typical residential customer within each agency. The adjustable inputs of the model are water usage and meter size. The model will include the appropriate graphs and figures that display the total bill of a typical customer in each agency as illustrated above

Meetings: None

Raftelis Deliverables: Rate survey model in Microsoft Excel

Section D.3: Rate Study Report

To comply with Proposition 218 requirements, Raftelis will prepare a rate study report documenting the rate study for all three services. A preliminary study report will include an executive summary highlighting the major issues and decisions reached during development of rates. The main body of the report will include a brief physical description of each utility system, service area description, an overview of operation and maintenance expenses, the capital improvement plan, the financial plan, and the proposed rates. The report will also contain a discussion on rate structure selection, rate design assumptions, and methodologies used to develop the rates. The methodology describing the cost of service and rate calculations will be described in detail so that the nexus between costs and rates is clearly defined and understandable. The report will also incorporate the results of the rate survey. This first version will be submitted to staff for review and comment.

The resulting revised draft study report will be submitted for District and the District Attorney comments and edits. We will then incorporate these revisions into a draft final report that will be presented during the District Board rate workshops. After incorporating any final edits from District staff and the District Board, Raftelis will provide the final report. We will also provide a summary for public consumption.

Meetings: Three webinars with staff to discuss comments

Deliverables: Draft and Final Report

Section D.4: Proposition 218 Notice and Public Hearing

Raftelis will assist District staff to develop a Proposition 218 public hearing notice for mailing within the required 45-day noticing period prior to holding the public hearing. The notice will outline the proposed rate changes, explain the right to challenge the rates, and will meet and comply with all noticing requirements of Proposition 218. Raftelis will then present the study results at a Proposition 218 hearing. We will address the District Board and public questions and comments. Presentation materials will be provided to District staff beforehand for review prior to the public hearing.

Meetings: One Proposition 218 Public Hearing

Deliverables: Proposition 218 public hearing notice; public hearing presentation materials

SECTION E. CUSTOMER EDUCATION AND OUTREACH (OPTIONAL)

Ensuring that the District maintains and grows public trust as it conducts its rate analysis and implements the result is critical. At a time when the public is empowered by social media and fueled by skepticism of public processes, proactive public outreach is a key component in obtaining public understanding of rate analysis recommendations.

Proactive communication increases community acceptance of rate changes, enhances credibility with stakeholders and policymakers, and builds awareness of the value of the service and the need for utility investments on behalf of the community. The District has a strong communications foundation to work from. Anticipating changes to a water budget rate structure is a special communication challenge that requires experience in developing a messaging platform and tactics that will explain this change.

Raftelis can assist the District by developing a strategic communication plan that includes development of collateral educational material and online tools to ensure the public is informed and provided with tools to understand the impacts to their individual bills.

Section E.1: Strategic Communications Plan

We will initiate this task with an on-site meeting with appropriate communications staff and project managers to understand communication needs, current environment and available communication channels. The strategic communication plan will accompany the final recommendations for rates and rate structure implementation and will include:

1. **Situation analysis** that analyzes available customer data and includes an environmental scan of current issues that may impact customer rate change acceptance.
2. **Stakeholder identification and public participation mapping** to ensure key influencers are connected to the communication process and identifies special population communication needs (e.g. translation services).
3. **Communication channel identification** to provide a strategy for using the District's web site, social media, printed and electronic materials, bills, direct mail, newsletters and staffing resources if/where available.
4. **Messaging platform** to provide messages about why rates are changing, how the new rate structure and water budgets work, how the results will be implemented, and potential impacts to customers.
5. **Internal communication strategies** to ensure District staff are aware of the rate changes and can answer questions, provide talking points and FAQ's for customer service staff who will be working with customers directly.
6. **Community outreach tactics** for key influencers such as the business community, neighborhood associations, highly impacted customer groups, etc. For example, should the District decide to implement significant changes to methodology for commercial rates to account for business growth, we will develop an approach to commercial customers and their understanding of the anticipated growth and consequential increased charges.
7. **Media relations and social media plan** to determine how best to leverage the District's media relationships and social media platforms.
8. **Written communication development** for use in such materials as FAQ's, infographics, website updates, bill inserts, etc.

Meetings: One on-site meeting

Deliverables: Strategic Communications Plan

Section E.2: Online Bill Calculator

It is difficult to calculate the bill impacts of rate structure changes for individual customers when water use varies so widely. Providing an online tool to help customers calculate their individual bill will improve customer understanding and acceptance of the changes and help customers plan ahead for changes to their monthly budget. Raftelis has technology consulting staff experienced in developing customer-facing interactive tools. They will work with the District's IT team and communications staff to develop a tool compatible with the District's website that can be used to easily calculate the changes resulting from water budget and rate structure changes. Users will be able to enter water consumption amounts from current or prior bills to see a comparison of charges under current and proposed rates. The bill calculator will be developed to look and feel similar to the

District’s overall website and source code will be delivered so that the District’s IT staff can modify it in the future if necessary.

Meetings: Conference calls, web-based sharing as needed

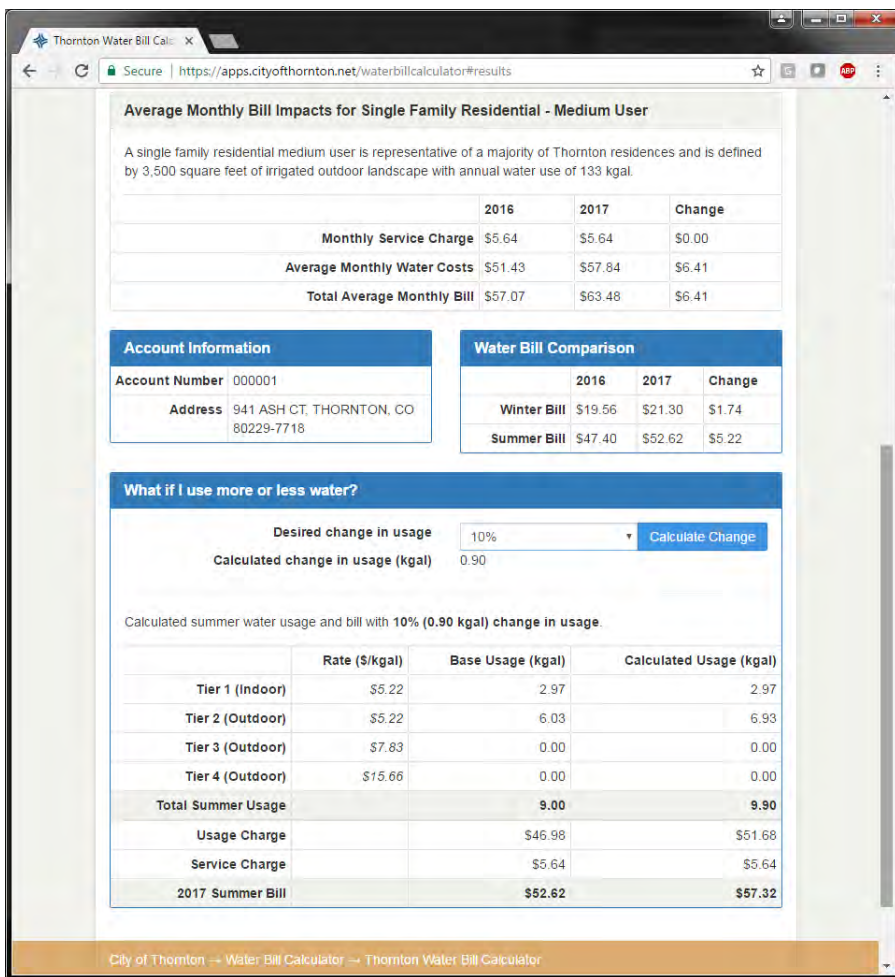
Deliverables: Online Bill Calculator

Section E.3: Collateral Materials

Visual representation of proposed changes in an easy to understand and accessible format can often significantly improve customer understanding of rate structure changes that may impact customer bills. Raftelis has a professional design team experienced in developing infographics, fact sheets, brochures, presentations, event displays, etc. to assist with communicating rate and rates structure changes in print, online or in person.

Meetings: Conference calls, web-based sharing as needed

Deliverables: To be determined in collaboration with District staff



SECTION F. MEETING ATTENDANCE

As requested by the District, Raftelis will attend three Board of Directors’ meetings occurring at the completion of each of Sections B, C, and D. We have noted this in the above sections’ descriptions, but the cost of these meeting will be included in Section F. For each meeting, we will provide the Board an overview of the study and the current stage of the study. We will then discuss the results and recommendations as well as any other considerations for discussion at that stage of the study. We will also address any questions the Board may have and guide them through the model to show the effects of different scenarios when necessary.

Meetings: Three Board of Directors’ meetings, one each at the conclusion of Sections B, C, and D.

Deliverables: Agenda, presentation materials, and meeting minutes

Project Fees

Raftelis proposes to complete the scope of work outlined below on a time-and-materials basis with a not-to-exceed cost of \$99,141, not including the optional task. If the District decides to proceed with optional task Section E, Customer Education and Outreach, it is an additional \$22,215. The following work plan provides a breakdown of the estimated level of effort required for completing each task described and the hourly billing rates for the personnel scheduled to complete the project.

Tasks	Webinars	Number of Meetings	Hours								Total Fees & Expenses
			PM	TR	PR	SC	GD	Tech Services	Admin	Total	
Section A: General - Project Initiation, Management, and Data Collection	0	1	8	0	0	12	0	0	6	26	\$5,407
Section B: Cost of Services <i>*Board Meeting Included in Section F</i>	4	0	20	8	0	24	0	0	0	52	\$12,540
Section C: Financial Analysis <i>*Board Meeting Included in Section F</i>	4	0	16	8	0	50	0	0	0	74	\$16,390
Section D: Proposed Rates <i>*Board Meeting Included in Section F</i>											
1. Rate Design	4	0	16	8	0	80	0	0	0	104	\$22,240
2. Rate Survey	0	0	4	2	0	8	0	0	0	14	\$3,220
3. Rate Study Report	3	0	16	20	0	60	0	0	0	96	\$20,980
4. Proposition 218 Notice and Public Hearing	0	1	12	2	2	4	0	0	0	20	\$5,442
(Optional) Section E: Customer Education and Outreach											
1. Strategic Communications Plan	1	0	0	32	6	0	0	0	1	39	\$8,630
2. Online Bill Calculator	0	0	0	4	2	0	0	48	0	54	\$9,300
3. Collateral Materials	0	0	0	8	2	0	15	0	0	25	\$4,285
Section F: Meeting Attendance	0	3	36	0	0	9	0	0	0	45	\$12,921
Total Estimated Meetings / Hours	16	5	128	92	12	247	15	48	7	549	
Hourly Billing Rate			\$295	\$210	\$240	\$185	\$125	\$155	\$80		
Total Professional Fees			\$37,760	\$19,320	\$2,880	\$45,695	\$1,875	\$7,440	\$560		\$115,530

PM - Sanjay Gaur, Vice President
 TR - Kevin Kostuik, Senior Consultant
 PR - Melissa Elliot, Manager
 TR (Section E) - Katie Knoll, Senior Consultant
 GD - Graphic Designer
 TS - Technical Services
 SC - Staff Consultants
 Admin - Administrative Staff

Total Fees	\$115,530
Total Expenses	\$5,826
Total Fees & Expenses	\$121,356
Primary Sections/Tasks	\$99,141
Optional Section E	\$22,215



August 6, 2019 LVMWD Regular Board Meeting

TO: Board of Directors

FROM: Finance & Administration

Subject : Financial Advisory Services: Award

SUMMARY:

On May 15, 2019, the District circulated a Request for Proposals for financial advisory services. Proposals were received from the following firms: Piper Jaffray; Bartel Wells Associates; Columbia Capital Municipal Advisors; Fieldman, Rolapp & Associates, Inc.; NHA Advisors and PFM Financial Advisors LLC. Staff recommends accepting the proposal from Piper Jaffray based on their extensive experience with debt financing, expertise in providing financial advisory services, and focus on the water and wastewater industries.

RECOMMENDATION(S):

Accept the proposal from Piper Jaffray, and authorize the General Manager to execute a five-year professional services agreement, in the amount of \$100,000, with one five-year renewal option for financial advisory services.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The total cost of this action is \$100,000. Sufficient funds for the work are available in the adopted Fiscal Year 2019-20. As specific financing strategies are developed, additional funding for implementation and execution of the strategies will likely be required.

DISCUSSION:

The District has a long-standing financial policy that favors a pay-as-you-go program for funding capital improvements. As a result, the District has only a single outstanding debt issuance with a final maturity in November 2023. These bonds have an optional redemption provision that is executable on or after November 1, 2019. Staff recommends obtaining the assistance of a financial advisor to assist in evaluating the merits of executing the redemption option.

In addition, the District has two large projects that will likely require some form of debt financing in accordance with District Financial Policy 4, Financing Alternatives: the Pure Water Project Las Virgenes-Triunfo and the Automated Meter Reading/Advanced Metering Infrastructure (AMR/AMI) Project. Staff proposes to utilize the expertise of a financial advisor to recommend the best financing strategy for these projects. The scope of work includes developing financing strategies, analyzing options to enhance the District's AA/stable credit rating; evaluating the impact of project financing options on the District's credit rating; developing and managing competitive processes to secure identified financing; providing assistance with state- and federally-subsidized loan programs; and assisting with long-term strategic financial planning.

Consultant Selection:

One March 15, 2019, the District circulated a Request for Proposals (RFP) for financial advisory services and advertised the RFP on the California Society of Municipal Finance Officers (CSMFO) and District websites. Six timely proposals and one late proposal were received. The six proposals received timely were evaluated by staff based on technical qualifications, experience and hourly rates. Based on the results of the evaluation, the three top ranked firms were interviewed: Piper Jaffray, NHA Advisors and PFM Financial Advisors LLC. Staff recommends accepting the proposal from Piper Jaffray (copy attached) to serve as the District's financial advisor.

Piper Jaffray and its proposed team have extensive experience with public financing for the water and wastewater industries, the State Revolving Fund Program (SRF), Water Infrastructure Finance and Innovation Act (WIFIA), debt issuance and other financial advisory services. The team has provided financial services to numerous state and local water agencies within California and throughout the U.S. In addition, the team demonstrated expertise in current financing trends and the ability to successfully accomplish the scope of work.

Proposed Contract Structure:

Due to the nature of financial advisory services, the benefits of having continuity through project planning and debt issuance and to ensure that continuing disclosures and other bond covenants are met, it is recommended that the agreement for the financial advisor be for a five-year term with one five-year renewal option. If at any time the selected firm fails to fulfill the terms of the agreement or meet the District's needs, the contract can be terminated by the District. The level-of-effort to complete the scope of work is largely dependent on the District's selection of financing strategies. As a result, the amount of the initial term of the agreement is recommended to be set at \$100,000 for budgetary reasons. As specific financing strategies are developed, additional funding for implementation and execution of the strategies will likely be required.

GOALS:

Ensure Effective Utilization of the Public's Assets and Money

Prepared by: Donald Patterson, Director of Finance and Administration

ATTACHMENTS:

Proposal by Piper Jaffray

Las Virgenes Municipal Water District

Request for Proposals – Financial Advisory Services



June 21, 2019

PiperJaffray®

LOS ANGELES | ORANGE COUNTY | SAN FRANCISCO | SAN DIEGO | SACRAMENTO | MINNEAPOLIS | NEW YORK

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Response Section	Page	LVMWD RFP Reference
Transmittal Letter		III - B - 3
1: Key Personnel	1	III - B - 4
2: References	3	III - B - 5
3: Qualifications & Experience	7	III - B - 6
4: Detailed Proposal	12	III - B - 7
5: Legal Issues & Potential Conflicts of Interest	16	III - B - 7
6: Costs	17	III - B - 8
Attachment A: Advisor Transaction Experience		
Attachment B: CSMFO Article		
Attachment C: Series 2009 Refunding Detail		
Attachment D: Planning Model		

Required Regulatory Disclosure

We are providing this material to provide you with certain regulatory disclosures as required by the Municipal Securities Rulemaking Board. As part of our services, Piper Jaffray may provide advice concerning the structure, timing, terms, and other similar matters concerning an issue of municipal securities that Piper Jaffray is underwriting or placing. However, Piper Jaffray intends to serve as an underwriter or placement agent and not as a financial advisor to you in this transaction; and the primary role of Piper Jaffray is to purchase securities for resale to investors or arrange for the placement of securities in an arm's-length commercial transaction between you and Piper Jaffray. Piper Jaffray has financial and other interests that differ from your interests.

June 21, 2019

Donald Patterson,
Director of Finance & Administration
Las Virgenes Municipal Water District
4232 Las Virgenes Road, Calabasas, CA, 91302

Re: Response to Request for Proposal for Financial Advisory Services

On behalf of Piper Jaffray, we are pleased to submit our response to the Las Virgenes Municipal Water District's (District) Request for Proposal for Financial Advisory Services. We believe our firm's strengths provide significant advantages to the District, which include the following:

Piper Jaffray is a leading Public Finance Focused Investment Bank

In 2018, Piper Jaffray was the only firm in the U.S. to rank in the **Top Ten** as financial advisor, placement agent, and underwriter. With advising, placing, and underwriting combined, Piper Jaffray lead or participated in more public finance transactions than any other firm in 2018. Public Finance is both essential to and visible within Piper Jaffray: Public Finance is essential to our business as it accounts for more than 30% of total revenues for Piper Jaffray. It is also visible as Frank Fairman, Head of Public Finance, is a member of the firm's leadership team and reports directly to our CEO.

California Presence & Expertise

We maintain five public finance offices across California to support our advising and underwriting clients. Since 2014, we advised, placed, or underwrote 891 California issues for over \$58.2 billion. We understand local governments, their strengths and challenges, and how to structure rated bonds that meet market expectations. As is the case with other states we serve, the combination of our local presence and our Water & Wastewater Funding Group will prove beneficial to the District.

Water & Wastewater Funding Group

We serve a range of clients across the U.S. including SRFs, wholesale and retail utility providers, combined utilities, stand-alone utilities, and projects involving combinations of local, SRF, USDA and WIFIA funding.

We have been fortunate to be a leader in the WIFIA program, having served as a lead advisor/underwriter for King County, San Francisco, DeKalb County (GA), San Juan Water District, Hillsboro (OR) and continue to play a leading role as the 3rd funding round moves forward. Since 2014, we have advised, placed, and senior managed 441 utility issues for more than \$26.2 billion.

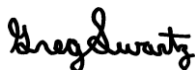
Valid Proposal

We acknowledge and accept the General Requirements outlined within Section D of the District's RFP. This proposal remains valid for 90 days. Thank you for your consideration.

Sincerely,



Tom Innis, Managing Director
50 California Street, Ste. 3100
San Francisco, CA 94111
(415) 616-1635
thomas.p.innis@pjc.com



Greg Swartz, Senior Vice President
2525 E. Camelback Road, Ste. 925
Phoenix, AZ 85016
(602) 808-5426
greg.g.swartz@pjc.com

Overview

Our advisory team will be led by Piper Jaffray's Water & Wastewater Funding Group as led by Tom Innis and Greg Swartz. Our team is dedicated to advising, consulting, placing, planning, and underwriting water and sewer utilities across the U.S. either as the lead contacts for clients or co-lead alongside other Piper Jaffray personnel.

Tom and Greg have over 55 years of combined public finance experience. They routinely coordinate debt issues and other "assembly line"/non-bond related projects for clients. As one of several examples of our unique capabilities, prior to Piper Jaffray, Greg Swartz served as executive director for Arizona's Water Infrastructure Finance Authority, served as chief financial officer for the Indiana Finance Authority, and issued bonds for the State of Illinois – enabling him to provide unique insights and input as an advisor, banker, consultant, issuer, manager, and policy maker.

Organizational Chart & Responsibilities

In addition to our leading our Water & Wastewater Funding Group, Tom and Greg will coordinate and rely upon a range of personal and resources from across the U.S. as summarized below.

Water & Wastewater Funding Group			Corporate Support & Resource Allocation	
Tom Innis San Francisco		Greg Swartz Phoenix	Frank Fairman Public Finance Director Minneapolis	Mark Adler California Manager LA/EI Segundo
Jessica Burst LA / EI Segundo	Tony Rapista LA / EI Segundo	Jake Smith Denver		
Rating & Credit Support		Debt Structuring & Marketing Support		
Yaffa Ratter New York		Tom LaFleur Chicago	Chris Bessette California Underwriting San Francisco	Joanna Brody Variable/Short-Term New York
Pete Stettler Chicago			Matt Morell Placements Minneapolis	John Pellicci Special Situations Minneapolis
Investments & Derivatives				

Resumes ~ Water & Wastewater Funding Group

Tom Innis, Managing Director

Role: Co-Lead Advisor & Day-to-Day Contact

Tom has over 20 years of public finance experience focused on water/wastewater utilities. As an Army veteran, Tom takes great pride in bringing his ethics of duty and honor to his clients. Tom's senior managed experience exceeds \$12 billion, primarily in water/wastewater utilities, including serving the Contra Costa Water District, East Bay MUD, Metropolitan Water District, and Sacramento Regional County Sanitation District, to name a few. Over the past five years, Tom has led 26 California water/sewer issues for more than \$820 million. Prior to Piper Jaffray, Tom managed water/sewer finance groups at two previous firms, both of which achieved top three California rankings. Tom holds a B.S. from the United States Military Academy at West Point and an MBA from The Wharton School, University of Pennsylvania. He holds Series 7, 50 and 63 licenses.

Greg Swartz, Senior Vice President

Role: Co-Lead Advisor & Day-to-Day Contact

With over 25 years of public finance experience, Greg focuses on water, wastewater, and SRF financings and provides unique insights as an issuer, advisor and banker. Greg's expertise includes creating or modifying structures/indentures for water/sewer utilities and SRFs in CA, AZ, IA, IL, IN, MO, MT, ND, NM, NV, and TX, among others. He has served as lead or co-lead advisor/banker/issuer on 175 utility and SRF financings worth over \$17.5 billion. Greg holds a bachelor's degree in economics, a master's in finance, and Series 7, 50, and 63 licenses.

Tony Rapista, Vice President

Role: Execution, Quantitative, Models, Cash Flows, Structures

Tony will coordinate quantitative analysis and issue execution. He has over 25 years of experience in the municipal securities industry including 9 years in public finance. Tony has over \$3 billion water/sewer financing experience including transactions for CIEDB, California DWR, Honolulu, Davis, Woodland-Davis CWA, Morgan Hill, La Habra Utility, and Palmdale Water District. Tony holds bachelors in economics from University of California – Irvine and Series 7 and 63 licenses.

Jessica Burst, Associate**Role:** Execution, Quantitative, Models, Cash Flows, Structures

Jessica will provide quantitative analysis and issue execution. Prior to joining Piper Jaffray in 2019, Jessica spent four years at PIMCO where she specialized in business development/strategy, marketing, and serving public pension clients. Jessica holds a bachelor's degree from the University of Southern California, has passed the CFA Level I exam, and holds Series 7 and 63 licenses.

Resumes ~ California Debt Structuring & Marketing Support**Chris Bessette, Managing Director****Role:** California Marketing, Pricing, Underwriting Support

Chris manages our San Francisco-based underwriting resources and will provide insights and oversight when the District issues competitive and negotiated public offerings. Chris has served as lead underwriter for 459 California issues worth \$11.7 billion since 2014 making him one of the most active underwriters within the state, as such he understands investor preferences and market perception of California credits/issuers. Under his leadership, Piper Jaffray perennially ranks as one of the top California underwriters. The District can leverage Chris to optimize the structure, marketing, and pricing of public offerings.

Resumes ~ Ratings & Credit Support**Yaffa Rattner, Managing Director****Role:** Rating Agency Strategies & Interactions

Yaffa's primary responsibilities include assessing and reviewing municipal transactions underwritten by Piper Jaffray to ensure investor protection while obtaining the highest possible rating and lowest cost of borrowing. Yaffa also analyzes a spectrum of credits in the secondary market to optimize trading decisions and provide market feedback to clients. Yaffa will assist our team to interact with rating agencies, address water enterprise downgrades, and to optimize ratings for the stormwater enterprise.

Peter Stettler, Principal**Role:** Ratings Interaction & Investor Presentation

Peter brings 25 years of experience in credit research and consulting to Piper Jaffray, where he supports the firm's sales and public finance efforts by focusing on general credit issues affecting the market. Prior to Piper Jaffray, Peter worked in ratings for Fitch; in the municipal research department for BMO Capital Markets and EVEREN Securities; and the finance practice of Ricondo & Associates

Through the course of his career Peter has supported several water/sewer utility issuers including Chicago, the Metropolitan Water Reclamation District of Greater Chicago, and the Milwaukee Metropolitan Sewerage District.

Peter is a frequent speaker at industry conferences and has been recognized by his peers for his work, including the Award of Excellence from the National Federation of Municipal Analysts (NFMA) and being named as a Second Team All-American Analyst. Peter has on the boards of the National Federation of Municipal Analysts and the Chicago Municipal Analyst Society, and has been active in various industry groups including the Governmental Accounting Standards Board.

Overview

Since 2014 across the U.S., we have been engaged in providing services similar to the District’s Scope of Services with state and local governments to finance 111 water/sewer projects for over \$6.6 billion – for detail see Attachment A. In addition to this debt issuing, for many of these clients, we routinely complete assignments not directly related to debt issuing including:

- Arbitrage/Rebate Coordination/Review
- Capital Project Planning/Funding Source Allocation
- Compliance/Consent Negotiations
- Policy/Procedure Development/Review
- Rate Study Coordination/Review
- State & Federal Financial Assistance Application Coordination/Review

As a subset of our clients, we have included references for recent water/sewer clients within the subsection entitled “References” below.

California Water & Wastewater Financings

To demonstrate the breadth of our knowledge in California’s water/sewer sector, we have included our California water/sewer transactions since 2014 below.

Date	Amount	Issue Description
05/01/2014	\$ 21,975,000	Morgan Hill Financing Authority Revenue Bond Water System Refunding, Series 2014
12/04/2014	31,980,000	El Centro Financing Authority Water Revenue Refunding Bonds, 2014 Series A
12/04/2014	20,450,000	El Centro Financing Authority Wastewater Revenue Refunding Bonds, 2014 Series A
06/24/2015	2,863,000	City of Arcata Tax Exempt Lease Agreement, Series 2015
12/10/2015	19,495,000	Woodland-Davis Clean Water Agency Subordinate Refunding Water Revenue Bonds, Series 2015A
12/10/2015	1,881,117	Woodland-Davis Clean Water Agency Subordinate Refunding Water Revenue Bonds, Series 2015B
12/29/2015	1,040,000	City of Rio Vista Sewer Enterprise Refunding Credit Facility Bonds, Series 2015
04/12/2016	410,735,000	California Infrastructure and Economic Development Bank, Clean Water Revolving Fund, Series 2016
06/08/2016	98,945,000	San Diego County Water Authority Water Revenue Refunding bonds, Series 2016A
06/08/2016	197,395,000	San Diego County Water Authority Water Revenue Refunding bonds, Series 2016B
10/12/2016	428,130,000	State of California DWR, Water System Revenue Bonds, Series AW (2016)
10/26/2016	38,000,000	Southern Marin Sewerage Agency Revenue Bonds, Series 2016
02/28/2017	450,000,000	California Infrastructure and Economic Development Bank, Clean Water Revolving Fund, Series 2017
04/05/2017	6,780,000	Madera Co Service Area 2A/2B Wastewater Treatment and Effluent Disposal System Notes, Series 2016
05/10/2017	39,910,000	Casitas Municipal Water Dt CFD Special Tax Bonds, Series 2017AB
05/18/2017	11,455,000	City of Lathrop Refunding Revenue Refinancing Bonds, Series 2017
06/01/2017	26,125,000	San Juan Water District Water Revenue Refunding Bonds, Series 2017
08/01/2017	37,250,000	Santa Margarita Water District of CFD 99-1 Special Tax Refunding Bonds, Series 2017A
10/31/2017	2,120,000	CFD No. 2014-67 of Eastern Municipal Water District Improvement Areas A 2017 Special Tax Bonds
11/15/2017	22,870,000	Woodland-Davis Clean Water Agcy Subordinate Refunding Water Revenue Bonds, Series 2017A
11/28/2017	18,155,000	Colton Utility Authority Water Revenue Refunding Bonds, Series 2017
12/06/2017	140,825,000	State of California DWR, Water System Revenue Bonds, Series 2017 AX (Taxable)
12/06/2017	350,670,000	State of California DWR, Water System Revenue Bonds, Series 2017 AX (Tax Exempt)
12/06/2017	2,414,000	Woodland-Davis Clean Water Agcy 2nd Subordinate Revenue Bonds, Series 2017B
12/13/2017	29,145,000	Adelanto Public Utility Auth Fixed Rate Revenue Refunding Bonds, Series 2017A
12/13/2017	41,710,000	Adelanto Public Utility Auth Fixed Rate Revenue Refunding Bonds, Series 2017B
12/14/2017	7,762,794	City of Lodi Wastewater System Revenue Refunding Certificates of Participation, Series 2017
12/18/2017	350,305,000	SFPUC Water Revenue Bonds, 2017 Sub-Series D Bonds (Refunding) (Green Bonds)
12/18/2017	48,890,000	SFPUC Water Revenue Bonds, 2017 Sub-Series 2017E Bonds (Refunding)
12/18/2017	8,705,000	SFPUC Water Revenue Bonds, 2017 Sub-Series F Bonds (Refunding)
02/22/2018	449,225,000	California Infrastructure and Economic Development Bank, Clean Water Revolving Fund, Series 2018
06/19/2018	12,805,000	Palmdale Water District Public Financing Authority Water Revenue Bonds, Series 2018A
07/18/2018	179,145,000	SFPUC Wastewater Revenue Bonds, Series 2018C (Green Bonds) Put Bonds
08/14/2018	4,315,000	Central Contra Costa Sanitary District Wastewater Revenue Refunding Bonds, Series 2018B
08/14/2018	15,135,000	Central Contra Costa Sanitary District Wastewater Revenue Refunding Bonds, Series 2018A
09/11/2018	81,105,000	Beaumont Public Improvement Authority Wastewater Revenue Bonds, Series 2018A
09/25/2018	2,980,000	City of Winter Water Revenue Refunding Bonds, Series 2018
09/25/2018	3,515,000	City of Winters Sewer Revenue Refunding Bonds, Series 2018
11/15/2018	426,330,000	LADWP Water System Revenue Bonds, 2018 Series B
12/12/2018	22,260,000	Temescal Valley Water District Special Tax Bonds, Series 2018
04/24/2019	83,920,000	California Infrastructure and Economic Development Bank, Clean Water Revolving Fund, Series 2019

References

Our Water & Wastewater Funding Group advises, places, and underwrites water/sewer utilities across the U.S. From amongst a range of clients, we selected the following as references given that we have provided services identical to the District's Scope of Services to these clients since July 1, 2017.



Adelanto

Lily Fang, Finance Director (Former)
11600 Air Expressway Adelanto, CA 92301 | 818-970-7177 | lfang@gmail.com

Adelanto consistently failed to manage operating expenses, raise rates, and honor cover/cash flow covenants. In 2017, Adelanto selected Piper Jaffray to restructure and refund water/sewer debt. Given the background of covenant failures and investigations and arrests of city officials, we placed the bonds through our network of commercial banks and generated savings in excess of 10% and created the underlying resolutions, policies, and procedures to facilitate future covenant compliance.



California Infrastructure and Economic Development Bank (IBank)

Nancee Trombley, Executive Director
1235 J Street, Suite 1823, Sacramento, CA 95814 | 916-341 6644 | nancee@ibank.ca.gov

IBank manages California's Infrastructure Revolving Fund (ISRF) for a wide range of infrastructure projects. Additionally, IBank issues Clean Water (CW) and Drinking Water (DW) SRF bonds on behalf of the State Water Resources Control Board.

We served as senior underwriter for the last three ISRF bonds including Series 2014, 2015, and 2016. Given our advising, placing, and underwriting experience, we manage many responsibilities normally managed by an advisor including local government due diligence, cash flows, rating agency presentations, and disclosure.

This experience is directly relevant to the District since the majority of the ISRF borrowers are low or non-rated entities, each series of ISRF bonds are only as strong as the weakest borrower within a pool. Therefore, each borrower benefits from IBank's expertise and the AAA/Aaa/AAA ratings (Fitch/Moody's/S&P) for the ISRF pooled finance program. Finally, more than 40% of the ISRF loan portfolio represents water/sewer projects.



Central Arizona Water Conservation District (CAWCD) / Central Arizona Project (CAP)

Douglas Dunlap, Finance & Accounting Director
PO Box 43030, Phoenix, AZ 850809 | 623-869-2360 | ddunlap@cap-az.com



CAWCD operates and maintains the Central Arizona Project canal, other canals, and transmission facilities to transmit water from the Colorado River to Phoenix, other communities in central Arizona, and as far south as Tucson. In our ongoing role as municipal advisor, we manage CAWCD's financings for the benefit of multiple water providers and their users across Arizona.



Central Contra Costa Sanitation District (CCCSD)

Philip Leiber, Finance Director
5019 Imhoff Place Martinez, CA 94553 | (925) 229 7305 | pleiber@centralsan.org

In 2018, CCCSD selected us to refund and restructure their outstanding bonds including taxable bonds with "challenging" prepayment provisions. In addition to refunding debt and restructuring bond documents, we assisted (and continue to assist) CCCSD to match their \$750 million ten year CIP to the range of funding sources – for more detail on our ongoing CCCSD efforts, see Section 4.



DeKalb County, Georgia

DeKalb County
Diane McNabb, Chief Financial Officer
1300 Commerce Drive, Decatur, GA 30030 | 404-371-2861

DeKalb County is the regional wastewater treatment provider for the county east of Atlanta as well as parts of Atlanta. In January 2019, DeKalb County hired Piper Jaffray to assist them finance over \$500 million of consent order related compliance projects by 2021.

Our DeKalb County team includes staff from our Southeast Public Finance Group located in Atlanta and our Water & Wastewater Funding Group. Our team will orchestrate public offerings, SRF loans, and WIFIA loans to reduce debt service and manage user rates moving forward.



King County, Washington ~ Wastewater/Stormwater

Ken Guy, Finance Director

401 Fifth Avenue, 3rd Floor, Seattle, WA 98104 | 206-263-9254

As either Seattle Northwest or Piper Jaffray (we acquired Seattle Northwest in 2014), we have served as advisor to King County since the 1990's and advised them on the first WIFIA loan originated in April 2018. In combination with \$140,000,000 of system revenue bonds and cash flows, King County will use WIFIA proceeds to finance stormwater/wastewater improvements to manage combined sewer overflows.

King County proceeded with a senior lien given early concerns about WIFIA's ability to originate subordinated debt given the springing lien requirement in the event of a default. King County paired WIFIA with system revenue bonds and cash flows since the Washington SRF is challenging to access in meaningful amounts. In contrast to California, Washington does not "leverage" its SRF through bonds to increase the number of benefitting communities and projects.

As King County's ongoing advisor, we treated WIFIA as another source of funding for the project and charged typical transaction/advising fees of \$0.65 per \$1,000 of bonds/debt for \$87,000. In addition to traditional advising services for the WIFIA loan, we served as lead on or assisted King County with the following:

- Letter of Interest
- Loan Application ~ all sections, but with emphasis on Section D, Financing Plan
- Financial/Pro Forma Model
- SRF Discussions/Interactions
- Lien & Loan Negotiations & Documentation
- System Revenue Supplemental Indenture for Affiliated System Revenue Bonds
- Loan Origination & Reporting



San Juan Water District (SJWD)

Donna Silva, Finance Director

P.O. Box 2157, Granite Bay, CA 95746 | 916-791 6907 | dsilva@sjwd.org

We have served as underwriter to SJWD since the 1990's. Under another advisor's contract, we recently advised SJWD on its \$28 million reservoir project to identify and obtain financial assistance from SRF, WIFIA, and other state/federal sources.

After numerous interactions with SWRCB and WIFIA staff, we recommended that SJWD obtain 100% of its financing needs through the DW SRF. Given the comparatively small project amount (\$28 million), accelerated construction schedule (less than a year), and a preference for standard level debt service, SJWD would not optimize the benefits of a WIFIA loan – which benefit large projects with long construction schedules and borrowers needing to defer, wrap, and backload principal.



San Francisco Public Utilities Commission (SFPUC)

Alexandra Gunnel, Funding Coordinator

544 Golden Gate Avenue, San Francisco, CA 94102 | 415-551 4505 | agunnel@sfgwater.org

SFPUC asked us to serve as special advisor for SRF loans/interactions under the advisory agreement between SFPUC and Hilltop Securities. While we remain focused on obtaining as much CW SRF funding for SFPUC as possible, we were asked to contribute to the WIFIA loan application, loan review, and loan origination effort.

We view SRF and WIFIA as funding sources and agreed to transaction/advising fees of \$0.50 per \$1,000 of bonds/loans. For WIFIA, we assisted SFPUC with the following:

- Loan Application
- Review Financial/Pro Forma Model
- Loan Negotiations & Documentation
- System Revenue Supplemental Indenture for Affiliated System Revenue Bonds

For WIFIA affiliated SRF financial assistance, we continue to assist SFPUC with the following:

- Interactions with members of the State Water Resources Control Board (SWRCB)
- Interactions and negotiations with SWRCB leadership and staff
- “White Paper” on California’s SRF ~ most recent version available upon request.
- Priority List Scoring Criteria ~ review and commentary
- Loan Application



State Water Resource Control Board (SWRCB)

Christopher Stephens, SRF Manager

1001 I Street, 16th Floor, Sacramento CA, 95814 | 916-341-5698 | christopher.stevens@waterboards.ca.gov

Similar to SRFs across the U.S. SWRCB can “leverage” California’s SRFs by issuing bonds secured by SRF assets to increase the number of benefitting communities and projects. SWRCB originally leveraged the CW SRF once in 2003 but did not leverage again until 2013.

In 2013, we were selected to lead the effort to completely overhaul and modernize the California SRF bond indenture -- we were directed to diplomatically take the lead over SWRCB’s advisor at the time. Amongst other enhancements, we eliminated the reserve requirement, cross collateralized CWRF and DWRF, streamlined the funds/accounts, and began the process to streamline access to and utilization of the SRFs by California communities and local governments.

Since 2013, we served as senior manager, joint-senior manager, or co-manager on all five of California SRF leveraged financings which have totalled over \$1.3 billion. We advise more California clients to borrow from the California SRFs than any other firm.

Piper Jaffray Overview

Piper Jaffray was founded in 1895 and remains headquartered in Minneapolis. Piper Jaffray is a full service financial services firm with over 1,200 employees serving clients within two primary business segments: (1) Public Finance, (2) Corporate Finance.

Piper Jaffray is publicly owned and traded on the New York Stock Exchange (symbol PJC) and has significant employee ownership. Piper Jaffray has no long-term debt outstanding and, therefore, has no long-term ratings.

Public Finance Experience & Qualifications

Public Finance is both essential to and visible within Piper Jaffray:

- **Essential** ~ Public Finance accounts for more than 30% of total revenues for Piper Jaffray.
- **Visible** ~ Frank Fairman, Head of Public Finance, is a member of the firm's leadership team and reports directly to our CEO.

Our Public Finance Group includes 138 advisors/bankers and 28 support staff in 38 offices across the U.S. that regularly advise municipal issuers and underwrite bonds. To support our public finance practices, we have 12 underwriters in five offices and 104 bond sales staff in 21 offices that provide up-to-date municipal market information to both our advisory and underwriting clients.

Piper Jaffray is the only firm in the U.S. to rank in the top ten as financial advisor, placement agent, and underwriter.

During 2018, we advised 26 transactions in California for \$568.5 million, making us the **Number 6** municipal advisor by number of issues (Source: SDC).

Also during 2018, we placed 142 transactions for \$1.3 billion, making us the **Number 1** placement agent for both number and par amount (Source: SDC.)

Finally, we senior managed 409 issues during 2018 for over \$12.1 billion, making us the **Number 6** underwriter for number of issues in the nation (Source: SDC).

With advising, placing, and underwriting combined, Piper Jaffray led or participated in more transactions than any other firm in 2018.

Our combination of advising, placing, and underwriting capability provides clients with resources that are not available at an advisory-only firm and ensures that the District will benefit from best practices, public finance expertise, and real-time market intelligence.

California Presence & Expertise

Piper Jaffray has served California clients since 1974 and has expanded its presence to include offices in Los Angeles, Orange County, Sacramento, San Diego, and San Francisco. Our California presence includes 16 public advisors/bankers. Our San Francisco Office includes underwriting and sales personnel and related facilities to support our advising and underwriting clients.



Since 2014, our California Public Finance Group has advised, placed, or underwritten 891 issues for more than \$58.2 billion ranging in size from:

- **Largest** ~ advising San Francisco Public Utilities Commission on its \$1.3 billion wastewater project funded by SRF, WIFIA, and revenue bonds.
- **Smallest** ~ senior underwriting Casitas Municipal Water District CFD for a \$100,000 special tax financing.

Piper Jaffray distinguishes itself from other California firms by our experience and qualifications as an advisor, placement agent, and underwriter. Our broad experience demonstrates our knowledge of local governments, funding sources/uses, and markets and enables us to provide unique planning, structuring, credit rating, marketing, investor targeting, pricing, and pre/post-issuance insights not available from firms limited to advising or underwriting.

While we can underwrite any amount of bonds anywhere in the U.S., we will utilize this expertise to optimize our advisory services to the District. We will also distinguish ourselves through our work with rating agencies by leveraging the expertise of our credit staff. Our credit staff’s previous work at rating agencies, brings credit experience that no other municipal advisory firm can offer.

We will assert ourselves across the range of the District’s needs from long-term planning/modeling to input on individual bond issues. With our capacity and personnel to serve as an advisor or an underwriter, we believe our pricing and marketing expertise will enable the District to market and sell bonds to a broader investor base, at the lowest possible rates, and with reduced transaction costs.

With respect to our ability to serve as an independent financial advisor, Municipal Security Rulemaking Board Rule G-42 will require us to serve as your fiduciary agent. Our underwriting and market expertise will enable us to serve as an informed and effective fiduciary agent. Other firms may claim independence since they do not have the resources to underwrite – but an effective advisor cannot be independent of market realities, trends, and rates.

Water & Wastewater Expertise

Our Water & Wastewater Funding Group is co-led by Tom Innis from our San Francisco office and Greg Swartz from our Phoenix office. Tom and Greg will co-lead our team on behalf of the District.

Our current and recent California water/sewer clients include:

• Adelanto	• Arcata	• Bakman Water
• Beaumont	• Casitas Municipal Water District	• Central Contra Costa Sanitary District
• Colton Utility	• CA Department of Water Resources	• East Bay Municipal Utility District
• Eastern Municipal Water District	• El Centro	• Lathrop
• Lodi	• Los Angeles Dept. of Water & Power	• Madera County
• MWD of Southern California	• Morgan Hill	• Palmdale Water District
• Rio Vista	• Sacramento County Sanitation District	• San Diego
• San Francisco PUC	• San Juan Water District	• Santa Clara Valley Water District
• Santa Margarita Water District	• Woodland-Davis Clean Water Agency	• State Water Resources Control Board

National Firm & Resources with a Dominant Local Public Finance Presence



Since 2014 and across the U.S., Piper Jaffray has advised, placed, or underwritten 441 water/sewer/stormwater financings for more than \$26.9 billion. We are the only firm to rank in the top five for public finance services – advising, placing, and underwriting – on behalf of water/sewer clients. As a subset of our national water/sewer experience, we have advised, placed or underwritten 39 California water/sewer issues for more than \$5.3 billion since 2014.

Since 2014, our water/wastewater financing experience has ranged in complexity and size from:

- **Largest** ~ underwriting \$1.67 billion for the Texas Water Development Board (TWDB), State Water Implementation Fund (SWIF) Revenue Bonds, Series 2018. TWDB manages the state capitalized SWIF as a subsidized revolving loan fund on behalf of local water/wastewater projects.
- **Smallest** ~ placing \$95,000 of water debt on behalf of Honey Creek Conservancy District, Indiana.

Our advising expertise is distinct and relevant to the District: (1) we have a greater depth of experience compared to other advisors; and (2) we understand the advantages and disadvantages of state/federal programs including Army Corp of Engineers, Bureau of Reclamation, CoBank, SRF, USDA Rural Development (RD), and WIFIA.

Our placement expertise is relevant: (1) we assist clients with alternatives to public offerings with shorter-terms or challenging credits, and (2) we have ongoing relationships with a broader range of investors.

Our underwriting experience is relevant: (1) we understand timing and expectations; (2) we understand the motivations and strategies of underwriters; and (3) we know how to motivate co-managing underwriters to perform.

Attachment A details our recent water/sewer advisory clients across the U.S. Our other relevant experience includes:

- **EPA Interactions** ~ we have a long history of interacting with EPA to assist clients. In particular, Greg is very familiar with EPA’s SRF, Water Quality, and WIFIA personnel having served on EPA’s Environmental Finance Advisory Board and other rule/policy development teams.
- **Rating Agency Interactions** ~ we have a clear understanding of rating agency respective analytical methods for drinking water, stormwater, and wastewater credits.

Funding Source Expertise

Our Water & Wastewater Funding Group is motivated to create and maintain a long-term relationship with the District. We can facilitate and expedite consideration of a range of funding methods/sources. We coordinate with finance teams across the U.S. to identify and obtain water/sewer funding tailored to individual projects, individual issuers, and individual issues.

In California, there are as many as nine (9) funding methods/sources to finance water/ wastewater projects. Within three categories, the methods/sources are listed below. Below the table, we discuss each method/source for future reference and to demonstrate our comprehensive water/wastewater expertise.

Source	Grants Available	Maximum Rate	Max Final Maturity (Years)	Potential District Funding Source
Government				
Infrastructure & Economic Development Bank (IBank)	No	Subsidized AAA	30	Yes
State Water Resources Control Board (SWRCB)	Yes	50% of AA-	30	Yes
USDA Rural Development (RD)	Yes		40	No
Water Infrastructure Finance & Innovation Act (WIFIA)	No	U.S. Treasury	Useful Life/35+	Yes
Market				
Placement (Place)	No	Varies by Issuer	10	Yes
Public Offering (Public)	No	Varies by Issuer	Useful Life/30+	Yes
Other				
CoBank	No	Varies by Borrower	30	Unlikely
Public Finance Authority (PFA)	No	AA + 0.25%	30	Yes

In alphabetical order, we summarize each method/source and potential pros and cons.



CoBank ~ as established by Congress, CoBank has evolved into a national cooperative bank governed by a Board and supported by stockholders to provide financial services to rural industries and local governments. Given its focus on rural utilities and businesses, CoBank is unlikely to provide financing in meaningful amounts except in circumstances where the District might extend service to unserved areas.



IBank ~ Though its multi/general purpose Infrastructure State Revolving Fund (ISRF), IBank provides meaningful subsidies indexed to its AAA cost of borrowing but has periodic capacity constraints due to dependence on \$300 million of revolving equity for lending and to support ISRF bonds. The District could rely on IBank for projects up to \$50 million or subordinated/non-traditional pledges. On a scale of 1 to 9 across the 9 methods/sources and with 9 being best, IBank averages a 5.8 for six considerations: expense, timing, requirements, ongoing disclosure, non-traditional projects, and non-traditional pledges.



PFA ~ PFA is a national conduit and pooled issuer sponsored by the National League of Cities and Towns and the National Association of Counties. Piper Jaffray assisted PFA to structure an insured (AA rated) water/sewer finance program to bundle individual issuers/issues for economies of scale and savings. Piper Jaffray works alongside multiple advisors and bond counsels affiliated with pool participants. PFA intends to focus on projects or refundings up to \$30 million secured by a revenues pledge. On a scale of 1 to 9, PFA averages 4.8 for the 6 considerations first listed under IBank. In particular, PFA is well suited to expedite co-funding alongside or in anticipation of SWRCB or WIFIA funding.



Placement ~ Simply put, placements can be viewed as one issuer placing bonds with one investor. After the Tax Reform Act, placements are less attractive due to higher rates. Additionally, the trend is towards obtaining ratings and increasing disclosure as the market expresses concern about the transparency of placements. On a scale of 1 to 9, placements can average 7.5 for financings at or less than 10 years for non-traditional projects/pledges, refundings, and with reduced disclosure/reporting. Placements are less likely for “large” projects with terms in excess of 10 years.



Public ~ Public offerings can be viewed as one issuer placing bonds with multiple investors. The District can optimize public offerings for large system-wide projects in excess of \$10 million secured by traditional revenue pledges. For projects under \$10 million, ratings, costs of issuance, and disclosure motivates issuers towards other methods/sources. Additionally, public offerings work best when the “story” behind the bonds is straightforward for investors with limited time and many investment options. Generally, public offerings can average 3.7 on a scale of 1-9. However, for larger projects, public offerings are often the best option for full or partial funding alongside constrained government sources. The District can optimize public offerings for growth, development, or extension projects where beneficiaries or new users pay for the benefits through special districts/assessments.



RD ~ Rural Development (RD) is affiliated with the US Department of Agriculture and managed by a State Director and staff located in each state. While RD is mandated to benefit populations under 10,000, RD grants and loans are viable for a large utility to extend service to rural areas or for a large utility to consolidate a small utility. Subject to these limitations, RD averages 3.2 on the 1-9 scale. Simply put, while RD is a solid “maybe” as a method/ source, it “maybe” worthwhile to discuss specific “rural related” projects with RD’s California State Director.



SDA ~ Amongst other services and benefits, the California Special District Association created a subsidiary conduit issuer for water/sewer financings – the CSDA Finance Corporation. Generally, SDA is best suited for small, infrequent, or inexperienced water/sewer issuers and removes much of the mystery associated with issuing bonds. SDA would likely average 4.8 on the 1-9 scale.



SWRCB ~ SWRCB manages the Clean Water SRF, the Drinking Water SRF, and other state programs funded by state “water” bonds. SWRCB offers the lowest interest rates – presently, the same subsidized rate applies regardless of term. Currently and temporarily, SWRCB has Clean Water SRF capacity constraints due to encumbering its \$6 billion+ (and growing) revolving equity to a handful of large projects including Sacramento County, San Diego, Silicon Valley Clean Water, and Sunnyvale. SWRCB also has staff constraints leading to lengthy processing times for funding. The District can optimize SWRCB as a co-funder or as a source for stormwater, groundwater recharge, or other non-traditional projects. Due to “programmatic” mandates

(prevailing wages, American iron & steel, procurement preferences, etc....), SWRCB averages 4.7 for the six considerations detailed under IBank.

WIFIA WIFIA ~ Based on our experience as advisor to several WIFIA applicants with large projects including DeKalb County (GA), Hillsboro-Tualatin Valley Water District (OR), King County (WA), San Francisco, and San Juan Water District (CA), the District should consider WIFIA for: (1) large projects, (2) 49% of project costs (WIFIA maximum), (3) extended terms to 35 years, (3) deferring, wrapping, and backloading principal payments, add (5) co-funding alongside CA's SRF's. Our principal concern is how to "mute" WIFIA springing to senior lien in the event of a default. WIFIA can average 4.5 on our considerations scale and we encourage the District to consider WIFIA for future projects.

Location of Day-to-Day Contacts

As detailed below, we will dedicate two lead advisors to meet the day-to-day needs of the District as well as coordinate other personnel and resources from our California Public Finance Group as well as other personal and resources from across the U.S.:

- Tom Innis – 50 California St, San Francisco | 415-616-1635 | thomas.p.innis@pjc.com
- Greg Swartz – 2525 E Camelback, Phoenix | 602-808-5426 | greg.g.swartz@pjc.com

Our other day-to-day contacts will include Tony Rapista and Jessica Burst from our LA / El Segundo office and Jake Smith from our Denver Office. Section 1 includes brief resumes for each of our key personnel.

Project Management Capability

As they do now on behalf of similar clients across the U.S., Tom and Greg will lead and coordinate the personnel and resources required by the District.

Generally, the resources and time required to complete assignments will depend on the District's work/project objectives, expectations, inputs, and outputs. Generally, for bond issues with definitive starting and closing dates, we expect to schedule and manage tasks over a 60-90 day period. For assignments "deeper in the assembly line" – including overseeing rate studies, contributing to capital improvement plans, and managing financial models – we expect to schedule and manage work on an ongoing basis since the related outputs are subject to periodic updates, refinements, and enhancements.

In addition to serving the District, we have other clients with similar needs and we will recruit additional personnel or rely on outside resources to meet the needs as required on an ongoing basis.

Municipal Advisor Registration

Piper Jaffray and the co-leads of our finance team – Tom Innis and Greg Swartz – are registered with the SEC and MSRB as municipal advisors and meet all regulatory requirements to perform the duties of an advisor.

As shown by subsection below, we present our capability to provide the District's Scope of Services to demonstrate our understanding of the required services.

Project Finance (LVMWDRFP, Scope of Services, II – 1)

As discussed in Section 3 above, we are uniquely qualified – and motivated – to identify and tailor funding sources to the District's Triunfo Pure Water and AMR/AMI projects. Based on the evolving SRF criteria and WIFIA priorities, we are confident we can guide the District towards the optimal combination of public offerings, placements, and state/federal funding.

As another example of our funding source expertise, **Attachment B** is a recent article on water/sewer funding that we were asked to provide to the California Society of Municipal Finance Officers.

Market Conditions & Trends (LVMWDRFP, Scope of Services, II – 2)

Compared to other firms with resources limited to advising only, we will rely on our broader range of advising, consulting, placing, and underwriting resources to enable the district to optimize public offerings – assuming public offerings are required in combination with financial assistance from state/federal programs.

As an example, our lead California underwriter – Chris Bessette – projected a preliminary public offering rate/yield scale for the District as shown to the right. Chris projected the scale based on:

- comparable issuers/credits,
- recent secondary market trading activity, and
- market activity as of June 20, 2019.

Given our market knowledge and expertise, the District can set the tone and expectations for public offerings through underwriters.

Debt Management (LVMWDRFP, Scope of Services, II – 3)

We currently monitor the District's outstanding debt and look forward to discussing options to refund Series 2009.

Amongst other structural enhancements, we look forward to reducing or eliminating reserve requirements and restructuring underlying legal documents to accommodate future public offerings, State Water Resources Control Board grants/loans, and WIFIA loans.

Attachment C details our initial analysis of refunding Series 2009 using a combination of the bond funded debt service reserve and refunding bond proceeds to redeem/refund Series 2009 to optimize savings, increase cash flow/coverage, and increase retained earnings.

Year	MMD	"Standard" 5% Coupons, 2020-2039				
		Coupon	Yield	Spread	YTM	Kick
2020	1.310%	5.000%	1.080%	-0.23%		
2021	1.330%	5.000%	1.100%	-0.23%		
2022	1.340%	5.000%	1.110%	-0.23%		
2023	1.350%	5.000%	1.120%	-0.23%		
2024	1.370%	5.000%	1.170%	-0.20%		
2025	1.420%	5.000%	1.240%	-0.18%		
2026	1.480%	5.000%	1.320%	-0.16%		
2027	1.550%	5.000%	1.430%	-0.12%		Maturities after 2029
2028	1.620%	5.000%	1.540%	-0.08%		Callable
2029	1.690%	5.000%	1.660%	-0.03%		11/1/2029
2030	1.760%	5.000%	1.760%	0.00%	1.984%	0.22%
2031	1.800%	5.000%	1.840%	0.04%	2.240%	0.44%
2032	1.860%	5.000%	1.920%	0.06%	2.461%	0.60%
2033	1.900%	5.000%	1.980%	0.08%	2.636%	0.74%
2034	1.950%	5.000%	2.050%	0.10%	2.798%	0.85%
2035	1.990%	5.000%	2.090%	0.10%	2.919%	0.93%
2036	2.030%	5.000%	2.130%	0.10%	3.027%	1.00%
2037	2.070%	5.000%	2.170%	0.10%	3.125%	1.06%
2038	2.110%	5.000%	2.210%	0.10%	3.212%	1.10%
2039	2.150%	5.000%	2.250%	0.10%	3.292%	1.14%

Calleguas-Las Virgenes Public Financing Authority: 2019 New Money Assumes \$122M Project Proceeds (No DSRF) Market Conditions as of June 20, 2019 (AA Underlying)				
	Base	Base +1 bps	Base +5 bps	Base +10 bps
Par Amount	\$98,920,000	\$98,990,000	\$99,275,000	\$99,625,000
True Interest Cost (TIC)	2.63%	2.64%	2.70%	2.70%
Maximum Annual Debt Service	\$7,939,500	\$7,945,750	\$7,968,750	\$7,996,500
Average Annual Debt Service	\$7,937,563	\$7,943,113	\$7,965,875	\$7,994,125
Total Debt Service	\$158,751,250	\$158,862,250	\$159,317,500	\$159,882,500
Difference	\$0	\$111,000	\$566,250	\$1,131,250

We have found that the sense of urgency behind issuing a series of bonds can lead to incremental enhancements as time and the receptiveness of the transaction finance team allows. However, this sense of urgency to issue bonds clouds the necessity to periodically review structure and implement enhancements. Accordingly, we encourage the District, its bond counsel, and its local government partners to participate in an annual on-site planning session to review goals/objectives, capacity models, outstanding debt, projected financial assistance needs/ demand, and other program features.

Finance Options & Financial Planning/Modeling *(LVMWD RFP, Scope of Services, II – 4, II – 5, and II – 7)*

Based on our ongoing experience with public offerings, SRF, and WIFIA, water/sewer utilities must maintain a financial planning model that projects capacity and integrates users, rates/revenues, operating expenses, capital investments/financings, water sources/uses, regulatory impacts, and drought impacts.

For public offerings, rating agencies and, increasingly, individual investors, rely on such planning models to assess the long-term viability of the utility given climate change, water source sustainability, economic conditions, and, amongst other considerations, rate pressures. While they are evolving towards a more streamlined approach, our experience with WIFIA indicates that accessing meaningful federal and state subsidies depends on demonstrating managerial, technical, and financial viability over a multi-year planning horizon.

Attachment D includes an example of a model we recently created on behalf of a client seeking to co-fund a set of projects with public offerings, SRF, and WIFIA.

As an example of our capability to facilitate capital planning, in August 2018 we senior managed a refunding for Central Contra Costa Sanitary District (CCCSD). In addition to refunding bonds and restructuring bond documents, we assisted (and continue to assist) CCCSD to match their \$750 million, ten year CIP to the range of funding sources.



Amongst other outcomes, CCCSD deferred submitting a letter of interest for WIFIA Round 3 in favor of pursuing other funding sources. CCCSD can not optimize the benefits available from WIFIA based on CCCSD's current projects, CCCSD's low cost of borrowing via public offerings, and projected needs – however, CCCSD will continue to consider WIFIA in the future.

Financing Strategies ~ Public Offerings & State/Federal Programs *(LVMWD RFP, Scope of Services, II – 6)*

We look forward to coordinating and facilitating the selection of other finance team members as we do now on behalf of clients across the U.S. To facilitate the process and to reduce burdens on our clients, we solicit finance team members through mini-RFPs approved by the client and circulated by Piper Jaffray. We understand and appreciate the subtle motivations and objectives of the various members of the finance team and can diplomatically, but firmly, manage the process to achieve the District's objectives with as little game playing and "theater" as possible.

The following recommendations are an introduction in best practices to market individual bond issues, expand the investor base, and reduce interest expense.

- **Manage Spread to Municipal Market Data** ~ Issuers judge bond sale performance compared to a daily market index – Municipal Market Data (MMD). Rate/yields close to or below MMD translate into lower interest expense and better performance – the lower the spread to MMD, the better. In contrast, higher spreads above MMD means higher interest expense.

As part of individual bond sales, the industry norm is to have a brief "spread" and "comps" discussion the week prior to pricing bonds. We recommend that the District require the underwriting team – not just the senior manager – discuss spread and comps multiple times 3-4 weeks prior to pricing. The District can and should set the tone and expectations for pricing weeks prior to pricing.

- **Investor Outreach** ~ As the District's advisor, we will encourage underwriters to aggressively price the District's bonds by:

1. Circulating the Preliminary Official Statement (POS) 2-3 weeks earlier than the industry standard of posting the POS the week prior to pricing;
2. Posting an investor presentation earlier and requiring co-manager sales staff to review it;
3. Hosting 1-on-1 calls with investors;
4. Participating in an annual investor open house alongside other California water/sewer issuers; and
5. Organizing an annual investor outreach events at regional and national conferences.

Interactions with District Board, Project Partners, and Public (LVMWD RFP, Scope of Services, II – 8)

We routinely interact with board members, project partners and the public/users of our clients. Given our ongoing experience, we understand how to translate detail into presentations and handouts that a variety of audiences can understand.

As one of several examples, we routinely assist school district clients to justify bond elections to board members and the voting public. The common theme is that presentations to elected/appointed officials and the public have to be tailored to a motivated audience that often does not understand all the nuanced details.

Wide Range of Services (LVMWD RFP, Scope of Services, II – 9)

The table below summarizes the breadth of services we offer our water/sewer financial advisory clients. Although some of the services may not be currently applicable to the District’s needs, they are available to the District if future needs require such services

Financial Management Related Services		Debt Management Related Services			Other Advisory Services	
Planning	Management	Structuring	Issuance	Management		
Long-Range Financial Planning & Modeling	Monitor Rate & Tax Capacity	Review Legal Requirements & Documents	Develop Marketing Plan	Advise on Bond Proceeds Management	Attend Board & Council Meetings	Seek ISRF, RD, SRF, WIFA & Other Assistance
Conduct Economic & Feasibility Analyses	Monitor Debt Capacity	Analyze Financing Alternatives	Coordinate Rating Agency Interactions	Monitor Debt & Refinancing Opportunities	Generate & Make Presentations	Form Special Taxing Districts
Assist Capital Planning & Budgeting	Advise on Investment Management	Evaluate Financing Methods	Recommend Finance Team Members	Assist in Continuing Disclosure	Assist in Election Support & Outreach	Assist in Annual Audit
Review Development Agreements	Advise on Cash Management	Develop Financing Plan	Assess Market Timing & Conditions	Assist in Arbitrage Compliance	Select Finance Team & Consultants	
Analyze, Project, & Compare Rate Structures	Prepare & Maintain Credit Profile	Develop & Monitor Financing Schedule	Draft Preliminary & Final Official Statements			
Contribute to or Conduct Rate Studies	Generate Policies & Procedures	Structure Debt Issues & Preliminary Terms	Provide Input & Monitor Pricing Scale			
			Generate Cash Flows			
			Manage Closing			
			Generate Final Pricing Book			

Targeting Investors (LVMWD RFP, Scope of Services, II – 6)

Piper Jaffray, as a firm uniquely capable to advise and underwrite, has the unique insight and capability to target known investors for District’s publicly offered or placed bonds. The first place to look would be the current holders of the District’s debt, however the District’s limited outstanding bonds have few reported holders. In response, we created a peer group of water/sewer issuers similar to the District.

The Vanguard Group	New England Asset Mgmt	Pacific Life Fund Advisors
BlackRock Advisors	Goldman Sachs	American Equity Advisors
Metlife Investment Advisors	Hartford Investment Mgmt	GSAM Stable Value
Charles Schwab	Principal Global Investors	Chubb Asset Mgmt
Franklin Advisers	Protective Life Co	J.P. Morgan
Nuveen Asset Mgmt	State Street Global Advisors	Fidelity Money Mgmt
PIMCO	Asset Preservation Advisors	Eaton Vance
TIAA-CREF	Dimensional Fund Advisors	Segall Bryant & Hamill
New York Life	DWS Investment Mgmt	American Century
Guggenheim Partners	Nationwide Asset Mgmt	AllianceBernstein

The top thirty bondholders for this peer group are listed below to demonstrate the quality and variety of the investor base we will target while overseeing underwriters.

The District’s peer group includes Contra Costa Water District, East Bay Municipal Utility District, and the San Francisco Public Utilities Commission. Within this group are 204 reported investors, each of which are familiar and comfortable with purchasing higher rated California water/sewer credits.

Conclusion

Many of the advisory services we can provide enable clients to develop and implement finance alternatives, which avoid or reduce the size of bond issues. Such alternatives include impact fees, developer contributions, special taxing districts, and/or interfund lending.

If the best alternative is to finance public infrastructure or amenities with bonds, we will assert ourselves across the range of advisory services detailed in the Scope of Services within the District’s RFP. As a firm with capacity and resources to serve as an advisor or an underwriter, our bond pricing and marketing expertise will enable the District to market and sell bonds to a broader investor base, at lower rates, and with reasonable transaction costs.

In contrast to firms with fewer resources and limited to advising only, we can offer more expertise, resources, and experience across the range of required services. In contrast to firms limited to underwriting only, our balance sheet is not leveraged or encumbered and we are not entangled in a myriad of financial products or services that often conflict or even “bet against” the objectives of issuers – with such conflicts evidenced by the lingering effects of the 2008-2009 financial crisis.

Regulator/Legal Issues

It is essential to note that none of our key personnel assigned to serve the District have been the subject of a regulatory proceeding or litigation. The following table to the right lists three findings related to Piper Jaffray public finance and action taken by the regulatory agencies since 2015.

Date	Agency	Finding	Action Taken
7/7/2016	FINRA	Untimely document submission	Fine/Censure
6/18/2015	SEC	Inadequate due diligence	Fine/Censure
2/2/2015	FINRA	Inadequate MSRB reporting	Fine/Censure

If regulatory investigations result in a disciplinary action, fines, suspensions or other significant undertakings or limitations, we are Required to post/submit the results to the Financial Industry Regulatory Authority (FINRA). Please refer to our Form BD filed at <http://www.finra.org/> via FINRA Broker Check.

We have no reason to believe that current and post regulatory matters or litigation will affect our ability to aggressively market, sell, and distribute the District's bonds.

Conflicts of Interest

Each quarter, all public finance staff respond to inquiries about client interactions, political contributions/activity, and affiliations with public associations, boards, and commissions. Compliance review the responses and follow-up as required to identify, address, and resolve any potential conflicts of interest.

Given our California public finance presence, we have relationships with bond counsels, underwriters, financial advisors, rating agencies, trustees, investment providers, liquidity providers, auditors, verification agents, and other finance authorities associated with the District. Currently, these relationships do not present conflicts. Accordingly, we hereby certify:

1. Piper Jaffray has no conflicts of interest with the District and others who represent the District .
2. Oiper Jaffray has no current knowledge of facts or circumstances that might create the appearance of a conflict of interest with the District and others who represent the District.
3. If actual or potential conflicts arise, we will consult with the District to address/resolve any conflicts.

Overview

Prior to summarizing our proposed fees, it is essential to note that municipal advisor fees represent one of the smallest components of borrowing costs. More significant impacts on borrowing costs include project costs, interest rates, rate spreads to market rates (Municipal Market Data or MMD), legal structure, ratings, underwriter fees, bond-funded reserves, investor outreach, and other costs of issuance.

While we are not advocating that the District ignore the cost of municipal advisor fees, we are advocating that the value of our contributions be considered. We believe we will add more value than any other firm will and that our fees will be several times less than the value and the savings we will generate through lower interest rates.

Our objective to achieve lower costs of borrowing will be attributable to a better legal structure, higher ratings, alternatives to bond funded reserves, assertive investor outreach, and narrower spreads (differences) to market rates and comparable issues/issuers. We want your business and your trust and we encourage the District to focus on the value we will add.

Given our advising, consulting, placing, and underwriting expertise, for public offerings we will focus on comparable issuers, comparable issues, and the spread to Municipal Market Data for public offerings. It is reasonable for us to claim that our expertise will lower the District's cost of borrowing.

To quantify the unique value we can add, we summarize the savings/benefits to the District if we guide underwriters to reduce the yields detailed in our scale in Section 4 by 1 basis point (bp = 0.01% and 100 bps = 1.00%), 5 bps, and 10 bps.

Project Finance: \$122 Million				
Market Conditions: June 20, 2019				
	Base	Base - 1 bps	Base - 5 bps	Base - 10 bps
Par Amount	\$98,920,000	\$98,850,000	\$98,565,000	\$98,215,000
Premium	\$23,790,716	\$23,860,858	\$24,141,396	\$24,490,236
True Interest Cost (TIC)	2.63%	2.62%	2.59%	2.55%
Maximum Annual Debt Service	\$7,939,500	\$7,934,500	\$7,912,250	\$7,883,250
Average Annual Debt Service	\$7,937,563	\$7,931,975	\$7,909,313	\$7,881,163
Total Debt Service	\$158,751,250	\$158,639,500	\$158,186,000	\$157,623,250
Savings	\$0	-\$111,750	-\$565,250	-\$1,128,000

Proposed Fees ~ Hourly Rates & Retainer

All of the proposed fees are subject to negotiation and are presented on a "not to exceed" basis. For the modeling/planning phase of the engagement, we would propose the following hourly rates, which are not related to a specific financing.

- Managing Director/ Senior Vice President \$250/hour
- Vice President \$200/hour
- Associate/ Analyst \$100/hour

We propose to negotiate a retainer fee of five thousand dollars (\$5,000) at the end of each quarter during the term of the engagement. Actual compensation/expenses can be deducted or compensated from this retainer.

Alternatively, we can negotiate not-to-exceed by project or task; e.g. a fixed fee to oversee and provide input on rate studies.

Invoices for the above general advisory service shall be submitted monthly, and shall include a breakdown of tasks, hours, and other allowable charges.

Proposed Fees ~ Transactions

We propose transaction compensation at closing from debt proceeds using the guidelines shown below. For financings involving additional complexity and/or an increased time commitment, we propose to negotiate a fee be higher than the guidelines. In contrast, other financings including financial assistance from state and federal program may be less complex and require less time and effort and we could negotiate lower fees.

Transaction Fee Guideline			
Amount	Base Fee	+ Fee per \$1,000	Not to Exceed
\$10,000,000 or less:	\$10,000		\$20,000
\$10,000,001 to \$20,000,000	\$20,000		\$30,000
\$20,000,001 to \$30,000,000	\$30,000		\$40,000
\$30,000,001 to \$40,000,000	\$40,000		\$50,000
\$40,000,001 to \$50,000,000	\$50,000		\$50,000
\$50,000,001 or greater	\$50,000	\$0.50	\$80,000

We can negotiate a final transaction fee in writing prior to the marketing, pricing, and closing of financings.

Reimbursable Expenses

Reimbursable expenses include, but are not necessarily limited to, copying, printing, postage, local mileage, out of town travel and living expenses, and courier expenses subject to actual receipts or District requirements:

Copying, External	At Cost per Receipt
Copying, Internal	Conform to District Rates/Charges
Printing, External	At Cost per Receipt
Printing, Internal	Conform to District Rates/Charges
Postage	At Cost per Receipt
Local Mileage	Conform to District Rates/Charges
Out-of-Town Travel & Living Expenses	At Cost & Conform to District Per Diem
Courier	At Cost per Receipt

Attachment A: Advisor Transaction Experience

Advisory Client & Transaction	Amount	Date
City of Rolla, Missouri, Sewerage System Revenue Bonds, Series 2019	1,520,000	5/13/2019
LeGrand, Iowa, Sewer Revenue Loan Agreement, Series 2019	2,100,000	4/26/2019
City of Independence, Polk County, Oregon, Full Faith and Credit Bonds (Water Rights Purchase) Series 2019	800,000	4/10/2019
San Juan Water District, WIFIA & SRF	28,000,000	03/01/19
City of Jackson, Missouri Combined Waterworks and Sewerage System Revenue Bonds, Series 2019	4,000,000	2/5/2019
City of Centralia, Missouri, Waterworks and Sewerage System Revenue Bonds, Series 2018	755,000	12/20/2018
King County, Washington, 2018 Remarketing of 2011 and 2012 Junior Lien Sewer Revenue Bonds	200,000,000	11/14/2018
City of Tacoma, Washington, Sewer Revenue Bonds, 2018	100,945,000	11/6/2018
King County, Washington, Sewer Revenue Bonds, 2018, Series B	124,455,000	11/5/2018
City of Tacoma, Washington, Defeasance of 2006 and 2011 Sewer Revenue Bonds, 2018	34,163,803	10/22/2018
City of Raymore, Missouri, Special Obligation Bonds, Series 2018	1,190,000	8/30/2018
Metropolitan Utilities District of Omaha, Nebraska, Water System Revenue Bonds, Series 2018	37,390,000	8/23/2018
City of Smithville, Missouri Refunding and Improvement Certificates of Participation, Series 2018	8,635,000	8/7/2018
San Francisco Public Utilities Commission, WIFIA & SRF	1,300,000,000	7/18/2018
City of Kearney, Missouri, Certificates of Participation, Series 2018	7,360,000	7/12/2018
City of Tucson, Arizona, Water System Revenue Obligations, Series 2018	23,935,000	6/12/2018
City of Boulder, Colorado, Water and Sewer Revenue Bonds, Series 2018	38,260,000	5/15/2018
Water Infrastructure Finance Authority of Arizona, Rev 2018-B Defeasance	81,625,000	5/10/2018
City of Gresham, Oregon, Full Faith and Credit Facility, Series 2018	30,000,000	5/10/2018
City of St. Joseph, Missouri Sewerage System Revenue Bonds, Series 2018	15,905,000	3/26/2018
City of Willard, Missouri, Certificates of Participation (Combined Waterworks and Sewerage System Project) Series 2018	3,600,000	3/26/2018
Calvey Creek Sewer District, Missouri, Sewage System Refunding Revenue Bonds, Series 2018	995,000	3/14/2018
Water Infrastructure Finance Authority of Arizona, Defeasance, 2018	46,110,000	1/17/2018
Dominion Water and Sanitation District, Douglas County, Colorado, Junior Limited Revenue Promissory Note, Series 2017A	23,382,000	12/27/2017
Dominion Water and Sanitation District, Colorado, Water Rights Note, Series 2017C	3,920,000	12/20/2017
King County, Washington, Junior Lien Sewer Revenue Bonds, Series 2017	50,000,000	12/19/2017
Sioux Center, Iowa, Sewer Revenue Capital Loan Notes, Series 2017	9,242,000	12/14/2017
Sioux Center, Iowa, Taxable Sewer Revenue Capital Loan Notes, Series 2017	8,000,000	12/14/2017
City of Kent, Washington, Combined Utility System Revenue Refunding Bonds, 2017	13,180,000	12/14/2017
City of Monmouth, Polk County, Oregon, Full Faith and Credit Refunding Bonds, Series 2017A (Sewer-Tax-Exempt)	1,120,000	12/7/2017
City of Chandler, Arizona, Excise Tax Revenue Obligations, Series 2017	36,220,000	12/5/2017
City of Grants Pass, Josephine County, Oregon, Wastewater Revenue Bonds, Series 2018	7,985,000	12/5/2017
City of Moscow, Idaho, Wastewater Revenue Refunding Bonds, Series 2018	3,560,000	12/4/2017
King County, Washington, Sewer Revenue Refunding Bonds, 2017	149,485,000	12/4/2017
City of Grants Pass, Josephine County, Oregon, Wastewater Revenue Bonds, Series 2017	9,035,000	10/25/2017
Water District No. 1 of Johnson County, Kansas, Water Revenue Refunding Bonds, Series 2017A	110,205,000	10/10/2017
Water District No. 1 of Johnson County, Kansas, Water Revenue Bonds, Series 2017B	40,105,000	10/10/2017
King County, Washington, Limited Tax General Obligation Refunding Bonds (Payable from Sewer Revenues) Series 2017	154,560,000	10/2/2017
Asbury, Iowa, Water Revenue Bonds (State Revolving Fund Project) Series 2017	1,719,000	9/8/2017
City of Renton, Washington, Water and Sewer Revenue Refunding Bonds, Series 2017	6,283,168	9/6/2017
Desoto, Iowa, Sewer Revenue Capital Loan Notes (SRF Program) Series 2017	1,967,000	9/1/2017
City of St. Joseph, Missouri, Sewerage System Revenue Bonds (State of Missouri - Direct Loan Program), Series 2017	66,850,000	8/23/2017



Advisory Client & Transaction	Amount	Date
Dominion Water and Sanitation District, Douglas County, Colorado, Subordinate Limited Revenue Promissory Water Note, Series 2017B	2,340,000	8/2/2017
City of Salem, Marion and Polk Counties, Oregon; Water and Sewer Revenue Refunding Bonds, Series 2017	55,990,000	6/29/2017
City of Tucson, Arizona, Water System Revenue and Revenue Refunding Obligations, Series 2017	106,970,000	6/15/2017
Water Infrastructure Finance Authority of Arizona, Defeasance, 2017	12,385,000	6/15/2017
City of Seattle, Washington, Drainage and Wastewater Improvement and Refunding Revenue Bonds, Series 2017	234,125,000	6/6/2017
City of Lathrop, California, Refunding Revenue Refinancing Bonds (Lathrop Financing Authority) Series 2017	11,455,000	5/18/2017
City of Scottsdale Municipal Property Corporation, Excise Tax Revenue Bonds (Water Improvements Project) Series 2017A	39,065,000	5/9/2017
Superstition Mountain Community Facilities District No. 1, Arizona, Refunding Revenue Bonds, Series 2017	19,282,000	4/12/2017
City of O'Fallon, Missouri, Special Obligation Bonds, Series 2017	19,515,000	4/5/2017
Aqua Pennsylvania, Inc., First Mortgage Bonds, Series of 2017C-D	50,000,000	1/31/2017
City of Seattle, Washington, Water System Improvement and Refunding Revenue Bonds, Series 2017	194,685,000	1/11/2017
City of Ellensburg, Washington, Water and Sewer Revenue Refunding Bonds, Series 2016	6,990,000	12/19/2016
Dominion Water and Sanitation District, Douglas County, Colorado, Tap Fee Revenue Bonds, Series 2016	85,025,000	12/15/2016
Aqua Pennsylvania, Inc., First Mortgage Bonds, Series of 2016A-B	85,000,000	12/15/2016
Walker County Water and Sewerage Authority, Georgia, Revenue Refunding Bond, Series 2016	8,750,000	12/2/2016
Duckett Creek Sanitary District, St. Charles County, Missouri, Lease Financing (Treatment Plant Projects)	7,061,000	11/23/2016
Little Blue Valley Sewer District, Missouri, Sewer Revenue Bonds, Series 2016	19,710,000	11/15/2016
City of Aurora, Colorado, acting by and through its Utility Enterprise, First-Lien Sewer Revenue Refunding Bonds, Series 2016	28,900,000	11/2/2016
King County, Washington, Sewer Improvement and Refunding Revenue Bonds, 2016, Series B	499,655,000	9/12/2016
Clackamas County Service District No. 1, Oregon, Sewer Revenue and Refunding Bonds, Series 2016	83,250,000	8/16/2016
City of Fountain, in El Paso County, Colorado, Water and Wastewater Utility Enterprise, Water Revenue Refunding Bonds, Series 2016	7,150,000	8/3/2016
City of Aurora, Colorado, acting by and through its Utility Enterprise, First-Lien Water Refunding Revenue Bonds, Series 2016 (Green Bonds)	437,025,000	7/19/2016
City of Seattle, Washington, Solid Waste System Improvement and Refunding Revenue Bonds, Series 2016	35,335,000	6/21/2016
City of Tucson, Arizona, Water System Revenue Obligations, Series 2016	17,215,000	6/8/2016
City of Seattle, Washington, Drainage and Wastewater System Improvement and Refunding Revenue Bonds, Series 2016	160,910,000	6/8/2016
City of Jefferson City, Missouri, Sewerage System Revenue Bonds, Series 2016	9,380,000	6/6/2016
City of Tacoma, Washington, Sewer Revenue Refunding Bonds, Series 2016A	31,855,000	5/4/2016
City of Tacoma, Washington, Sewer Revenue Refunding Bonds, Series 2016B	11,865,000	5/4/2016
City of Boulder, Colorado (Acting Through its Water Utility Enterprise and its Wastewater Utility Enterprise) Water and Sewer Revenue Bonds, Series 2016	34,145,000	5/3/2016
Eugene Water and Electric Board (EWEB), Oregon, Water Utility System Revenue and Refunding Bonds, Series 2016	39,180,000	4/26/2016
City of Jackson, Missouri, Combined Waterworks and Sewerage System Revenue Bonds, Series 2016	4,000,000	4/12/2016
Public Water Supply District No.5 of Cass County, Missouri, Refunding Certificates of Participation, Series 2016	355,000	4/7/2016
City of Tucson, Arizona, Water System Revenue Refunding Bonds, Series 2016-A	71,805,000	3/15/2016
City of Kirksville, Missouri, Combined Waterworks and Sewerage System Revenue Bonds, Series 2016 (State of Missouri - Direct Loan Program)	18,000,000	2/22/2016
City of Rio Vista, California, Sewer Enterprise Refunding Credit Facility Bonds, Series 2015	1,040,000	12/29/2015
City of Fulton, Missouri, Sewer Revenue Bonds (Direct Loan Program) State of Missouri State Revolving Fund Loan Program, Series 2015	13,000,000	12/3/2015
Aqua Pennsylvania, First Mortgage Bonds, Series of 2015	210,000,000	12/3/2015
City of Fountain, in El Paso County, Colorado, Acting by and through the City of Fountain Electric, Water and Wastewater Utility Enterprise, Water Revenue Bonds, Series 2015	3,965,000	11/17/2015
Metropolitan Utility District, Nebraska, Water Revenue Refunding and Improvement Bonds, Series 2015	188,895,000	11/17/2015

Advisory Client & Transaction	Amount	Date
King County, Washington, Junior Lien Variable Rate Demand Sewer Revenue Bonds, Series 2001B (LOC Substitution) (2015)	50,000,000	11/16/2015
King County, Washington, Junior Lien Variable Rate Demand Sewer Revenue Bonds, Series 2001A (LOC Substitution) (2015)	50,000,000	11/16/2015
City of Liberty, Missouri, Sewer System Refunding Revenue Bonds, Series 2015B	2,765,000	10/28/2015
Storm Lake, Iowa, Storm Water Revenue Capital Loan Notes, Series 2015	750,000	9/18/2015
City of Boulder, Colorado (Acting through its Water Utility Enterprise and its Wastewater Utility Enterprise) Water and Sewer Revenue Bonds, Series 2015	10,075,000	9/1/2015
Clayton County Solid Waste Management Authority, Georgia, Refunding Revenue Bonds, Series 2015	8,965,000	8/28/2015
City of Boulder, Colorado, Storm Water and Flood Management Revenue Bonds, Series 2015	22,845,000	6/16/2015
City of Seattle, Washington, Solid Waste Revenue Bonds, 2015	35,830,000	6/3/2015
State of Montana, General Obligation Bonds (Water Pollution Control State Revolving Fund Program) Series 2015C	24,365,000	5/27/2015
City of Seattle, Washington, Water System Improvement and Refunding Revenue Bonds, Series 2015	340,840,000	5/20/2015
Industrial Development Authority of the City of St. Joseph, Missouri, Sewer System Improvement and Refunding Bonds, Series 2015B	19,215,000	4/29/2015
Industrial Development Authority of the City of St. Joseph, Missouri, Sewer System Improvement and Refunding Bonds, Series 2015A	10,255,000	4/29/2015
City of Lebanon, Tennessee, Water and Sewer Revenue and Tax Bonds, Series 2015 (Qualified Energy Conservation Bonds - Direct Payment - Federally Taxable)	3,500,000	4/14/2015
College Park Business and Industrial Development Authority, Georgia, Revenue Bonds (Water and Sewer Project) Series 2015	8,720,000	3/11/2015
City of Tacoma, Washington, Sewer Revenue and Refunding Bonds, Series 2015	109,300,000	2/11/2015
City of Sequim, Washington, Water and Sewer Revenue Bonds, Series 2014	3,145,000	12/18/2014
City of Newport, Oregon, Water Revenue Loan Agreement, Series 2014	4,556,800	12/16/2014
Iowa Great Lakes Sanitary District, Iowa, General Obligation Capital Loan Notes, Series 2014B	6,800,000	12/15/2014
City of Kirksville, Missouri Combined Waterworks and Sewerage System Rev Bonds, Series 2014	1,485,000	12/10/2014
City of St. Joseph, Missouri Sewerage System Revenue Bonds, Series 2014B	5,755,000	12/8/2014
City of Greeley, Colorado, Water Revenue Refunding Bonds, Series 2014	9,145,000	12/2/2014
Aqua Pennsylvania, First Mortgage Bonds, Series of 2014	65,000,000	11/20/2014
Idaho Bond Bank Authority, Revenue Bonds, Series 2014C	12,805,000	11/6/2014
City of Willard, Missouri Refunding Certificates of Participation (Combined Waterworks & Sewerage Systems Project), Series 2014	2,295,000	11/4/2014
City and County of Denver, Colorado, Acting By and Through Its Board of Water Commissioners, Master Resolution Water Revenue Bonds, Series 2014A	48,670,000	9/16/2014
Sunrise Water Authority, Oregon. Water Revenue Refunding Bonds, Series 2014	14,490,000	6/25/2014
City of Jefferson, Missouri, Sewerage System Revenue Bonds, Series 2014	9,940,000	5/5/2014
Coralville, Iowa, Sewer Revenue Capital Loan Notes, Series 2014E	2,773,000	5/2/2014
City of Hermiston, Oregon, Water and Sewer System Revenue Bonds, Series 2014	4,715,000	4/23/2014
Water District No. 1 of Johnson County, Kansas, Water Revenue Bonds, Series 2014	86,350,000	1/14/2014

FEATURED ARTICLE

Funding Sources for Water and Wastewater Projects - Part II



Greg Swartz, Piper Jaffray

Written By
Greg Swartz and Tom Innis

California's local governments can access a wide range of funding sources for water and wastewater projects. This article is intended to enable local governments to focus on the most likely sources for specific needs.

There are nine funding sources commonly used by California local governments to finance water and wastewater projects categorized into three broad sources:

- **Government** ~ Includes state and federal sources that provide grants and loans at below market rates.
- **Market** ~ With assistance from a financial advisor, placement agent, or underwriter, local governments sell debt to a wide range of investors ("public offering") or place debt to a single investor or a limited number of investors ("placement").
- **Other** ~ The third category includes lenders affiliated with national boards or national/state associations to provide easier and less expensive access to capital markets.

Each of the funding sources share the following characteristics:

- fund a wide range of water and wastewater projects;
- require final maturities equal to the useful life of the project or the typical final maturity noted;
- limit debt to a ratio of pledged annual revenues to annual debt service; and
- document debt as bonds, installment agreements, certificates of participation, or loans.

System Wide Benefits

Generally, projects with system wide benefits are secured and repaid by

water, wastewater, or combined revenues. Local governments should expect to borrow or issue above a "practical" minimum given expenses associated with reviewing, rating, documenting, originating, closing, and/or servicing the debt. Generally, the minimums serve as a guide and are not fixed – see [Table 2](#) as a guide.

Local governments should also expect a maximum borrowing amount subject to:

- borrower limits based on "debt coverage" or a ratio of annual net revenues divided annual debt service ranging from a standard 1.2 to 1 to a less common low of 1 to 1; and
- source limits driven by investor/market expectations (placements) or capacity issues (government sources).

As an example, a local government may be able to borrow \$100,000,000 based on its "debt coverage" but a funding source may have capacity to fund only \$50,000,000. In particular, government sources may limit funding to individual recipients. In this circumstance, the local government should rely on multiple funding sources to fully fund the project.

As a general guideline, local governments should focus on public offerings on WIFIA to co-fund projects in excess of \$50 million. For smaller projects under \$5 million where programmatic requirements (prevailing wages, procurement preferences, environmental assessments, etc...) can be disproportionately challenging, local governments should focus on IBank, PFA, and SDA.

Rural and Disadvantaged Communities

Three sources provide all or target a portion of funding to rural or financially disadvantaged local governments as noted in [Table 3](#).

Growth or Development

Growth or development projects are likely to be funded by one or a combination of developer contributions, impact fees, or debt secured/repaid with assessments subject to the value of the benefiting property. In these circumstances, local governments should focus on funding through IBank, placements, or public offerings.

[continues on next page](#)



Tom Innis, Piper Jaffray

Table 1: Overview of Sources

Source	Grants Available	Maximum Rate	Maximum Final Maturity (Years)
Government			
Infrastructure & Economic Development Bank (IBank)	No	AAA	30
State Water Resources Control Board (SWRCE)	Yes	50% of AA-	30
USDA Rural Development (RD)	Yes		40
Water Infrastructure Finance & Innovation Act (WIFIA)	No	U.S. Treasury	30
Market			
Placement	No	Varies by Issuer	10
Public Offering	No	Varies by Issuer	30
Other			
CA Special District Association Finance Corporation (SDA)	No	Varies by Borrower	30
CoBank	No	Varies by Borrower	30
Public Finance Authority (PFA)	No	AA + 0.25%	30

Table 2: Minimum & Maximum Debt

Source	"Practical" Minimum Debt	Maximum Debt	
		Borrower Limits	Source Limits
CoBank	\$250,000	Debt Coverage	CoBank Capacity
IBank	\$500,000	Debt Coverage	Available Funding
PFA	\$1,000,000	Debt Coverage	\$30,000,000
Placement	\$250,000	Debt Coverage	Varies by Investors
Public Offering	\$1,000,000	Debt Coverage	
RD	\$250,000	Debt Coverage	Available Funding
SDA	\$1,000,000	Debt Coverage	
SWRCE	\$250,000	Debt Coverage	Available Funding
WIFIA	\$25,000,000	Debt Coverage	Available Funding

Table 3: Sources for Rural Areas or Disadvantaged Communities

Source	Required Recipients	Targeted Recipients
CoBank	Rural Areas	
RD	Population of 10,000 or Less	Disadvantaged Communities
SWRCE		Portion of Funding to Disadvantaged Communities

Stormwater Projects

Depending on security/repayment source, local governments should focus on placements, public offerings, SWRCB, and WIFIA to fund stormwater projects. Generally, the simpler the security/repayment source, local governments could obtain grants and subsidized loans from SWRCB.

Water Source Remediation

If a local government intends to remediate groundwater sources, likely funding sources depend on security/repayment and the end users of remediated water. If secured/repaid with revenues, focus on CoBank, IBank, PFA, placements, public offerings, SWRCB, and WIFIA. If secured/repaid by assessments or other security or if the project benefits private interests, focus on CoBank, placements, or public offerings.

Water Source Acquisition or Development

If a local government intends to acquire water sources or construct dams, reservoirs, or transmission lines within undisturbed areas, it should focus on CoBank, IBank, PFA, placements, public offerings, and SDA. Invariably, such projects involve water rights or environmental impacts that government sources find challenging to support.

Non-Point Source Pollution Projects

If a local government sponsors a non-point source pollution project - like on-site treatment of animal wastes at a feeding operation, likely funding sources include CoBank, placements, public offerings, and SWRCB. If a private party secures debt, focus on CoBank, and placements.



Author Greg Swartz coordinates Piper Jaffray's Utility/SRF Finance practice nationally with co-author Tom Innis who manages Piper Jaffray's Water and Wastewater practice in California. Most recently they served as joint senior manager for the State of California Clean Water State Revolving Fund Revenue Bonds and are working as special advisor to the San Francisco Public Utility Commission's SRF/WIFIA program.

SOURCES AND USES OF FUNDS

Calleguas-Las Virgenes Public Financing Authority
 2019 Sanitation System Refunding Revenue Bonds
 Market Conditions as of June 20, 2019
 Preliminary; Subject to Change
 Assumes AA Underlying Rating
 No DSRF

Dated Date 08/03/2019
 Delivery Date 08/03/2019

Sources:

Bond Proceeds:	
Par Amount	9,160,000.00
Premium	980,545.65
	<u>10,140,545.65</u>
Other Sources of Funds:	
Prior Bonds DSRF Release*	2,766,678.00
	<u>12,907,223.65</u>

Uses:

Refunding Escrow Deposits:	
Cash Deposit	0.56
SLGS Purchases	12,679,666.00
	<u>12,679,666.56</u>
Delivery Date Expenses:	
Cost of Issuance	164,160.00
Underwriter's Discount	61,279.20
	<u>225,439.20</u>
Other Uses of Funds:	
Additional Proceeds	2,117.89
	<u>12,907,223.65</u>

Note: *From 2018 CD Report.



SUMMARY OF REFUNDING RESULTS

Calleguas-Las Virgenes Public Financing Authority
2019 Sanitation System Refunding Revenue Bonds
Market Conditions as of June 20, 2019
Preliminary; Subject to Change
Assumes AA Underlying Rating
No DSRF

Dated Date	08/03/2019
Delivery Date	08/03/2019
Arbitrage yield	1.110595%
Escrow yield	1.110500%
Value of Negative Arbitrage	2.95
Bond Par Amount	9,160,000.00
True Interest Cost	1.338424%
Net Interest Cost	1.427829%
Average Coupon	5.000000%
Average Life	2.809
Par amount of refunded bonds	12,460,000.00
Average coupon of refunded bonds	4.079393%
Average life of refunded bonds	2.321
PV of prior debt to 08/03/2019 @ 1.110595%	13,430,583.38
Net PV Savings	525,477.62
Percentage savings of refunded bonds	4.217316%
Percentage savings of refunding bonds	5.736655%



SUMMARY OF BONDS REFUNDED

Calleguas-Las Virgenes Public Financing Authority
 2019 Sanitation System Refunding Revenue Bonds
 Market Conditions as of June 20, 2019
 Preliminary; Subject to Change
 Assumes AA Underlying Rating
 No DSRF

Bond	Maturity Date	Interest Rate	Par Amount	Call Date	Call Price
2009 Sanitation System Refunding Revenue Bonds:					
SERIAL	11/01/2019	5.000%	2,305,000.00		
	11/01/2020	3.250%	2,400,000.00	11/01/2019	100.000
	11/01/2021	3.375%	2,480,000.00	11/01/2019	100.000
	11/01/2022	4.000%	400,000.00	11/01/2019	100.000
	11/01/2022	4.500%	2,180,000.00	11/01/2019	100.000
	11/01/2023	4.000%	850,000.00	11/01/2019	100.000
	11/01/2023	4.500%	1,845,000.00	11/01/2019	100.000
			12,460,000.00		

Note: Assumes 30-day call notice.



PRIOR BOND DEBT SERVICE

Calleguas-Las Virgenes Public Financing Authority
2019 Sanitation System Refunding Revenue Bonds
Market Conditions as of June 20, 2019
Preliminary; Subject to Change
Assumes AA Underlying Rating
No DSRF

Period Ending	Principal	Coupon	Interest	Debt Service
11/01/2019	2,305,000	5.000%	254,037.50	2,559,037.50
11/01/2020	2,400,000	3.250%	392,825.00	2,792,825.00
11/01/2021	2,480,000	3.375%	314,825.00	2,794,825.00
11/01/2022	2,580,000	** %	231,125.00	2,811,125.00
11/01/2023	2,695,000	** %	117,025.00	2,812,025.00
	12,460,000		1,309,837.50	13,769,837.50



SAVINGS

Calleguas-Las Virgenes Public Financing Authority
 2019 Sanitation System Refunding Revenue Bonds
 Market Conditions as of June 20, 2019
 Preliminary; Subject to Change
 Assumes AA Underlying Rating
 No DSRF

Date	Prior Debt Service	Refunding Debt Service	Savings	Present Value to 08/03/2019 @ 1.1105952%
11/01/2019	2,559,037.50	111,955.56	2,447,081.94	2,440,465.97
11/01/2020	2,792,825.00	2,573,000.00	219,825.00	216,637.56
11/01/2021	2,794,825.00	2,577,250.00	217,575.00	212,131.89
11/01/2022	2,811,125.00	2,591,000.00	220,125.00	212,329.23
11/01/2023	2,812,025.00	2,593,500.00	218,525.00	208,473.09
	13,769,837.50	10,446,705.56	3,323,131.94	3,290,037.73

Savings Summary

PV of savings from cash flow	3,290,037.73
Less: Prior funds on hand	-2,766,678.00
Plus: Refunding funds on hand	2,117.89
	<hr/>
Net PV Savings	525,477.62



BOND SUMMARY STATISTICS

Calleguas-Las Virgenes Public Financing Authority
 2019 Sanitation System Refunding Revenue Bonds
 Market Conditions as of June 20, 2019
 Preliminary; Subject to Change
 Assumes AA Underlying Rating
 No DSRF

Dated Date	08/03/2019
Delivery Date	08/03/2019
First Coupon	11/01/2019
Last Maturity	11/01/2023
Arbitrage Yield	1.110595%
True Interest Cost (TIC)	1.338424%
Net Interest Cost (NIC)	1.427829%
All-In TIC	1.958253%
Average Coupon	5.000000%
Average Life (years)	2.809
Duration of Issue (years)	2.675
Par Amount	9,160,000.00
Bond Proceeds	10,140,545.65
Total Interest	1,286,705.56
Net Interest	367,439.11
Total Debt Service	10,446,705.56
Maximum Annual Debt Service	2,593,500.00
Average Annual Debt Service	2,461,265.71
Underwriter's Fees (per \$1000)	
Average Takedown	3.000000
Other Fee	3.689869
Total Underwriter's Discount	6.689869
Bid Price	110.035660

Bond Component	Par Value	Price	Average Coupon	Average Life
Serial Bond	9,160,000.00	110.705	5.000%	2.809
	9,160,000.00			2.809

	TIC	All-In TIC	Arbitrage Yield
Par Value	9,160,000.00	9,160,000.00	9,160,000.00
+ Accrued Interest			
+ Premium (Discount)	980,545.65	980,545.65	980,545.65
- Underwriter's Discount	-61,279.20	-61,279.20	
- Cost of Issuance Expense		-164,160.00	
- Other Amounts			
Target Value	10,079,266.45	9,915,106.45	10,140,545.65
Target Date	08/03/2019	08/03/2019	08/03/2019
Yield	1.338424%	1.958253%	1.110595%



BOND PRICING

Calleguas-Las Virgenes Public Financing Authority
 2019 Sanitation System Refunding Revenue Bonds
 Market Conditions as of June 20, 2019
 Preliminary; Subject to Change
 Assumes AA Underlying Rating
 No DSRF

Bond Component	Maturity Date	Amount	Rate	Yield	Price
Serial Bond:					
	11/01/2020	2,115,000	5.000%	1.080%	104.830
	11/01/2021	2,225,000	5.000%	1.100%	108.621
	11/01/2022	2,350,000	5.000%	1.110%	112.360
	11/01/2023	2,470,000	5.000%	1.120%	116.037
		9,160,000			

Dated Date	08/03/2019	
Delivery Date	08/03/2019	
First Coupon	11/01/2019	
Par Amount	9,160,000.00	
Premium	980,545.65	
Production	10,140,545.65	110.704647%
Underwriter's Discount	-61,279.20	-0.668987%
Purchase Price	10,079,266.45	110.035660%
Accrued Interest		
Net Proceeds	10,079,266.45	



BOND DEBT SERVICE

Calleguas-Las Virgenes Public Financing Authority
2019 Sanitation System Refunding Revenue Bonds
Market Conditions as of June 20, 2019
Preliminary; Subject to Change
Assumes AA Underlying Rating
No DSRF

Period Ending	Principal	Coupon	Interest	Debt Service
11/01/2019			111,955.56	111,955.56
11/01/2020	2,115,000	5.000%	458,000.00	2,573,000.00
11/01/2021	2,225,000	5.000%	352,250.00	2,577,250.00
11/01/2022	2,350,000	5.000%	241,000.00	2,591,000.00
11/01/2023	2,470,000	5.000%	123,500.00	2,593,500.00
	9,160,000		1,286,705.56	10,446,705.56



ESCROW CASH FLOW

Calleguas-Las Virgenes Public Financing Authority
 2019 Sanitation System Refunding Revenue Bonds
 Market Conditions as of June 20, 2019
 Preliminary; Subject to Change
 Assumes AA Underlying Rating
 No DSRF

Date	Principal	Interest	Net Escrow Receipts	Present Value to 08/03/2019 @ 1.1104996%
11/01/2019	12,679,666.00	34,370.94	12,714,036.94	12,679,666.00
	12,679,666.00	34,370.94	12,714,036.94	12,679,666.00

Escrow Cost Summary

Purchase date	08/03/2019
Purchase cost of securities	12,679,666.00
Target for yield calculation	12,679,666.00



ESCROW COST

Calleguas-Las Virgenes Public Financing Authority
 2019 Sanitation System Refunding Revenue Bonds
 Market Conditions as of June 20, 2019
 Preliminary; Subject to Change
 Assumes AA Underlying Rating
 No DSRF

Type of Security	Maturity Date	Par Amount	Rate	Total Cost
SLGS	11/01/2019	6,531,549	2.140%	6,531,549.00
SLGS	11/01/2019	6,148,117		6,148,117.00
		12,679,666		12,679,666.00

Purchase Date	Cost of Securities	Cash Deposit	Total Escrow Cost	Yield
08/03/2019	12,679,666	0.56	12,679,666.56	1.110500%
	12,679,666	0.56	12,679,666.56	



ESCROW DESCRIPTIONS

Calleguas-Las Virgenes Public Financing Authority
 2019 Sanitation System Refunding Revenue Bonds
 Market Conditions as of June 20, 2019
 Preliminary; Subject to Change
 Assumes AA Underlying Rating
 No DSRF

Type of Security	Type of SLGS	Maturity Date	First Int Pmt Date	Par Amount	Rate	Max Rate
Aug 3, 2019:						
SLGS	Certificate	11/01/2019	11/01/2019	6,531,549	2.140%	2.140%
SLGS	Certificate	11/01/2019		6,148,117		2.140%
				12,679,666		

SLGS Summary

SLGS Rates File	20JUN19
Total Certificates of Indebtedness	12,679,666.00



ESCROW REQUIREMENTS

Calleguas-Las Virgenes Public Financing Authority
2019 Sanitation System Refunding Revenue Bonds
Market Conditions as of June 20, 2019
Preliminary; Subject to Change
Assumes AA Underlying Rating
No DSRF

Period Ending	Principal	Interest	Principal Redeemed	Total
11/01/2019	2,305,000.00	254,037.50	10,155,000.00	12,714,037.50
	2,305,000.00	254,037.50	10,155,000.00	12,714,037.50



ESCROW STATISTICS

Calleguas-Las Virgenes Public Financing Authority
 2019 Sanitation System Refunding Revenue Bonds
 Market Conditions as of June 20, 2019
 Preliminary; Subject to Change
 Assumes AA Underlying Rating
 No DSRF

Total Escrow Cost	Modified Duration (years)	Yield to Receipt Date	Yield to Disbursement Date	Perfect Escrow Cost	Value of Negative Arbitrage	Cost of Dead Time
Global Proceeds Escrow: 12,679,666.56	0.243	1.110500%	1.110500%	12,679,663.61	2.95	
12,679,666.56				12,679,663.61	2.95	0.00

Delivery date 08/03/2019
 Arbitrage yield 1.110595%



ESCROW SUFFICIENCY

Calleguas-Las Virgenes Public Financing Authority
2019 Sanitation System Refunding Revenue Bonds
Market Conditions as of June 20, 2019
Preliminary; Subject to Change
Assumes AA Underlying Rating
No DSRF

Date	Escrow Requirement	Net Escrow Receipts	Excess Receipts	Excess Balance
08/03/2019		0.56	0.56	0.56
11/01/2019	12,714,037.50	12,714,036.94	-0.56	
	12,714,037.50	12,714,037.50	0.00	



COST OF ISSUANCE

Calleguas-Las Virgenes Public Financing Authority
2019 Sanitation System Refunding Revenue Bonds
Market Conditions as of June 20, 2019
Preliminary; Subject to Change
Assumes AA Underlying Rating
No DSRF

Cost of Issuance	\$/1000	Amount
Bond Counsel	10.91703	100,000.00
Ratings (S&P)	2.18341	20,000.00
Ratings (Moody's)	1.91048	17,500.00
Trustee	0.54585	5,000.00
Municipal Advisor	1.00000	9,160.00
POS/OS Printer	0.27293	2,500.00
Contingency	1.09170	10,000.00
	17.92140	164,160.00



UNDERWRITER'S DISCOUNT

Calleguas-Las Virgenes Public Financing Authority
2019 Sanitation System Refunding Revenue Bonds
Market Conditions as of June 20, 2019
Preliminary; Subject to Change
Assumes AA Underlying Rating
No DSRF

Underwriter's Discount	\$/1000	Amount
Average Takedown	3.00000	27,480.00
DTC	0.08734	800.00
CUSIP	0.07096	650.00
Day Loan	0.02000	183.20
iPREO Syndicate	0.10000	916.00
DAC Continuing Disclosure Review	0.10917	1,000.00
Underwriter's Counsel	2.72926	25,000.00
Pershing	0.02729	250.00
CDIAC	0.54585	5,000.00
	6.68987	61,279.20



DISCLAIMER

Calleguas-Las Virgenes Public Financing Authority
2019 Sanitation System Refunding Revenue Bonds
Market Conditions as of June 20, 2019
Preliminary; Subject to Change
Assumes AA Underlying Rating
No DSRF

We are providing this material to provide you with certain regulatory disclosures as required by the Municipal Securities Rulemaking Board. As part of our services, Piper Jaffray may provide advice concerning the structure, timing, terms, and other similar matters concerning an issue of municipal securities that Piper Jaffray is underwriting or placing. However, Piper Jaffray intends to serve as an underwriter or placement agent and not as a financial advisor to you in this transaction; and the primary role of Piper Jaffray is to purchase securities for resale to investors or arrange for the placement of securities in an arm's-length commercial transaction between you and Piper Jaffray. Piper Jaffray has financial and other interests that differ from your interests.



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**Section 1
Sources & Uses**

Phases	1	2	3	4	5	Total
Sources						
Bonds	-	62,336,728	52,031,237	16,550,496	-	130,918,460
Revenue	94,562,517		2,792,096	6,602,117	10,412,138	114,368,869
SRF	127,100,227	100,000,000	-	100,000,000	-	327,100,227
WiFiA	-	155,970,582	-	118,323,099	-	274,293,681
Total	221,662,744	318,307,310	54,823,333	241,475,712	10,412,138	846,681,237
Uses						
Project	190,961,237	274,220,000	47,230,000	208,030,000	8,970,000	729,411,237
Management	30,701,507	44,087,310	7,593,333	33,445,712	1,442,138	117,270,000
Total	221,662,744	318,307,310	54,823,333	241,475,712	10,412,138	846,681,237



Section 2
Users

Year Ending, June 30	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Connections											
Residential - Single Family	25,621	25,934	24,900	24,871	26,504	26,748	27,082	27,760	28,870	30,025	31,226
Residential - Multi Family or Mobile Homes	1,663	1,683	1,616	1,614	1,720	1,736	1,758	1,801	1,874	1,948	2,026
Industrial	38	38	37	37	39	39	40	41	42	44	46
Commercial	1,632	1,652	1,586	1,584	1,688	1,704	1,725	1,768	1,839	1,912	1,989
Other	60	61	58	58	62	63	63	65	68	70	73
Total	29,013	29,368	28,197	28,164	30,013	30,289	30,668	31,435	32,692	34,000	35,360

Connections Growth %

	1.22%	-3.99%	-0.12%	6.57%	0.92%	1.25%	2.50%	4.00%	4.00%	4.00%
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Connection Allocations

Residential - Single Family	88.31%
Residential - Multi Family or Mobile Homes	5.73%
Industrial	0.13%
Commercial	5.62%
Other	0.21%



	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
	32,475	33,774	35,125	36,530	37,991	39,510	41,091	42,735	44,444	46,222	48,071	49,993	51,993	54,073	56,236
	2,107	2,192	2,279	2,371	2,465	2,564	2,667	2,773	2,884	3,000	3,120	3,244	3,374	3,509	3,649
	48	50	52	54	56	58	60	63	65	68	71	74	77	80	83
	2,068	2,151	2,237	2,327	2,420	2,516	2,617	2,722	2,831	2,944	3,062	3,184	3,311	3,444	3,582
	76	79	82	85	89	92	96	100	104	108	112	117	122	126	132
	36,774	38,245	39,775	41,366	43,021	44,741	46,531	48,392	50,328	52,341	54,435	56,612	58,877	61,232	63,681
	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%



**Section 3
Rates**

Year Ending, June 30

Rate Structure

	2018	2019	2020	2021	2022	2023	2024	2025
Monthly Flat Rates by User Type								
Residential - Single Family	47.18	49.36	52.82	55.98	59.34	62.31	65.43	67.39
Residential - Multi Family or Mobile Homes	30.45	34.17	36.56	38.76	41.08	43.13	45.29	46.65
Monthly Volume Rates by User Type & 100 cf Water Used/Discharged								
Commercial - Standard Load Strength	4.20	4.74	5.07	5.38	5.70	5.98	6.28	6.47
Commercial - Low Load Strength	4.65	5.24	5.61	5.94	6.30	6.61	6.95	7.15
Commercial - High Load Strength	7.96	9.06	9.69	10.28	10.89	11.44	12.01	12.37
Annual Discharge Rates by Industrial User								
per 1 Million Gals Discharge	4,399.69	4,929.51	5,274.58	5,591.05	5,926.51	6,222.84	6,533.98	6,730.00
per 1,000 lbs of Suspended Solids	1,601.19	1,776.50	1,900.86	2,014.91	2,135.80	2,242.59	2,354.72	2,425.36
per 1,000 lbs of Organic Carbon	2,076.50	2,339.76	2,503.54	2,653.76	2,812.98	2,953.63	3,101.31	3,194.35
per 1,000 lbs of Ammonia Nitrogen	6,318.62	7,036.84	7,529.42	7,981.18	8,460.05	8,883.06	9,327.21	9,607.03

Rate Increases

Monthly Flat Rates by User Type								
Residential - Single Family	9.67%	10.00%	7.00%	6.00%	6.00%	5.00%	5.00%	3.00%
Residential - Multi Family or Mobile Homes		12.22%	7.00%	6.00%	6.00%	5.00%	5.00%	3.00%
Monthly Volume Rates by User Type & 100 cf Water Used/Discharged								
Commercial - Standard Load Strength		12.86%	7.00%	6.00%	6.00%	5.00%	5.00%	3.00%
Commercial - Low Load Strength		12.69%	7.00%	6.00%	6.00%	5.00%	5.00%	3.00%
Commercial - High Load Strength		13.82%	7.00%	6.00%	6.00%	5.00%	5.00%	3.00%
Annual Discharge Rates by Industrial User								
per 1 Million Gals Discharge		12.04%	7.00%	6.00%	6.00%	5.00%	5.00%	3.00%
per 1,000 lbs of Suspended Solids		10.95%	7.00%	6.00%	6.00%	5.00%	5.00%	3.00%
per 1,000 lbs of Organic Carbon		12.68%	7.00%	6.00%	6.00%	5.00%	5.00%	3.00%
per 1,000 lbs of Ammonia Nitrogen		11.37%	7.00%	6.00%	6.00%	5.00%	5.00%	3.00%



	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
	68.74	69.42	70.12	70.82	71.53	72.24	72.97	75.88	81.95	88.51	91.17	92.53	93.46
	47.58	48.06	48.54	49.03	49.52	50.01	50.51	52.53	56.73	61.27	63.11	64.06	64.70
	6.60	6.67	6.73	6.80	6.87	6.94	7.01	7.29	7.87	8.50	8.75	8.89	8.97
	7.30	7.37	7.44	7.52	7.59	7.67	7.75	8.06	8.70	9.40	9.68	9.82	9.92
	12.62	12.74	12.87	13.00	13.13	13.26	13.39	13.93	15.04	16.25	16.73	16.98	17.15
	6,864.60	6,933.25	7,002.58	7,072.60	7,143.33	7,214.76	7,286.91	7,578.39	8,184.66	8,839.43	9,104.61	9,241.18	9,333.60
	2,473.87	2,498.61	2,523.59	2,548.83	2,574.32	2,600.06	2,626.06	2,731.10	2,949.59	3,185.56	3,281.13	3,330.34	3,363.65
	3,258.24	3,290.82	3,323.73	3,356.97	3,390.54	3,424.44	3,458.69	3,597.03	3,884.80	4,195.58	4,321.45	4,386.27	4,430.13
	9,799.17	9,897.16	9,996.13	10,096.09	10,197.05	10,299.02	10,402.01	10,818.09	11,683.54	12,618.23	12,996.77	13,191.72	13,323.64
	2.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	4.00%	8.00%	8.00%	3.00%	1.50%	1.00%
	2.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	4.00%	8.00%	8.00%	3.00%	1.50%	1.00%
	2.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	4.00%	8.00%	8.00%	3.00%	1.50%	1.00%
	2.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	4.00%	8.00%	8.00%	3.00%	1.50%	1.00%
	2.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	4.00%	8.00%	8.00%	3.00%	1.50%	1.00%
	2.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	4.00%	8.00%	8.00%	3.00%	1.50%	1.00%
	2.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	4.00%	8.00%	8.00%	3.00%	1.50%	1.00%
	2.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	4.00%	8.00%	8.00%	3.00%	1.50%	1.00%



**Section 4
Sources**

Year Ending, June 30	2017	2018	2019	2020	2021	2022	2023	2024
Service Fees								
Sewer Fees - City	33,175,456	36,361,629	39,997,792	42,797,637	45,365,495	48,087,425	50,491,797	53,016,387
Sewer Fees - Non-City	1,015,123	1,126,197	1,238,817	1,325,534	1,405,066	1,489,370	1,563,838	1,642,030
CAFR Adjustment	(6,682)	-	-	-	-	-	-	-
Subtotal	34,183,897	37,487,826	41,236,609	44,123,171	46,770,561	49,576,795	52,055,635	54,658,417
Connection & Development Fees								
Sewer Connection Fees	3,362,244	3,579,098	1,789,549	894,774	912,670	930,924	949,542	968,533
Storm Drain Fees	-	1,530	1,561	1,592	1,624	1,656	1,689	1,723
Subtotal	3,362,244	3,580,628	1,791,110	896,366	914,294	932,580	951,231	970,256
Interest Income	197,817	244,836	454,519	811,543	1,067,261	991,132	999,565	926,780
Other Revenues								
Other Agencies - Reimbursements	58,594	50,000	-	-	-	-	-	-
SF Bay Water Quality Grant	-	380,000	-	-	-	-	-	-
Miscellaneous Grants	699,946	169,303	410,209	-	-	-	-	-
Permit - Water Discharge	11,972	15,606	15,918	16,236	16,561	16,892	17,230	17,575
Late Payment Penalties	75,294	82,473	90,721	97,071	102,895	109,069	114,522	120,249
Sales from PGE Electricity	20,965	50,768	51,783	52,819	53,875	54,953	56,052	57,173
Miscellaneous	57,109	-	-	-	-	-	-	-
Subtotal	923,880	748,150	568,631	166,126	173,331	180,914	187,804	194,997
Transfers								
General Fund (Storm Sewer)	-	3,146,100	-	-	-	-	-	-
Solid Waste Management Fund	405,503	416,805	404,744	404,744	404,744	243,614	-	-
Water Fund	172,611	659,829	-	-	-	-	-	-
Subtotal	578,114	4,222,734	404,744	404,744	404,744	243,614	-	-
Bond & Loan Proceeds								
Bond	-	-	-	31,168,364	31,168,364	26,015,618	26,015,618	-
SRF 2017	3,826,736	66,374,104	31,157,395	23,020,996	2,720,996	-	-	-
SRF 2020	-	-	-	25,000,000	25,000,000	25,000,000	25,000,000	-
SRF 2028	-	-	-	-	-	-	-	-
WIFIA 2020	-	-	-	38,992,645	38,992,645	38,992,645	38,992,645	-
WIFIA 2028	-	-	-	-	-	-	-	-
Subtotal	3,826,736	66,374,104	31,157,395	118,182,006	97,882,006	90,008,264	90,008,264	-
Total Sources	43,072,688	112,658,278	75,613,008	164,583,956	147,212,197	141,933,299	144,202,499	56,750,450



	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
54,606,878	55,698,187	56,255,169	56,817,721	57,385,898	57,959,757	58,539,354	59,124,748	61,489,738	66,408,917	
1,691,291	1,725,946	1,743,205	1,760,637	1,778,243	1,796,026	1,813,986	1,832,126	1,905,411	2,057,844	
-	-	-	-	-	-	-	-	-	-	-
56,298,169	57,424,133	57,998,374	58,578,358	59,164,141	59,755,783	60,353,340	60,956,874	63,395,149	68,466,761	
987,904	1,007,661	1,027,815	1,048,371	1,079,822	1,112,216	1,145,583	1,179,951	1,215,349	1,251,810	
1,757	1,793	1,828	1,865	1,921	1,979	2,038	2,099	2,162	2,227	
989,661	1,009,454	1,029,643	1,050,236	1,081,743	1,114,195	1,147,621	1,182,050	1,217,511	1,254,037	
930,437	1,008,334	1,119,217	1,188,011	1,733,913	1,383,969	1,452,715	1,514,778	1,292,605	769,177	
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
17,926	18,285	18,651	19,024	19,795	20,149	20,512	20,883	21,633	22,923	
123,856	126,394	127,658	128,934	130,850	133,193	135,592	138,046	143,002	151,530	
58,316	60,066	61,868	63,724	64,809	65,969	67,157	68,373	70,828	75,051	
-	-	-	-	-	-	-	-	-	-	-
200,098	204,745	208,177	211,682	215,453	219,312	223,261	227,302	235,463	249,504	
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	16,550,496	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	29,580,775	29,580,775	29,580,775	29,580,775	29,580,775	-	-	-
-	-	16,550,496	54,580,775	54,580,775	54,580,775	54,580,775	54,580,775	-	-	-
58,418,365	59,646,666	76,905,907	115,609,061	116,776,025	117,054,033	117,757,712	63,881,004	66,140,728	70,739,479	



	2035	2036	2037	2038
71,721,630	73,873,279	74,981,378	75,731,192	
2,222,471	2,289,145	2,323,483	2,346,717	
-	-	-	-	
73,944,102	76,162,425	77,304,861	78,077,910	
1,289,364	1,328,045	1,367,887	1,408,924	
2,294	2,363	2,433	2,506	
1,291,658	1,330,408	1,370,320	1,411,430	
881,583	904,264	933,029	1,119,567	
-	-	-	-	
-	-	-	-	
-	-	-	-	
24,303	25,032	25,552	26,006	
160,652	165,471	168,908	171,908	
79,569	81,956	83,659	85,145	
-	-	-	-	
264,524	272,460	278,119	283,059	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
76,381,867	78,669,557	79,946,329	80,891,966	



Section 5
Uses

Year Ending, June 30	2017	2018	2019	2020	2021	2022	2023
Reserve/Fund Balance, July 1	25,781,949	16,301,059	11,592,804	6,307,412	867,098	18,459,859	27,203,014
Operating Expenses							
Operations	16,693,768	19,043,809	18,658,388	19,190,562	20,000,672	20,519,522	20,550,321
In-Lieu Charges and Fund Transfers	4,228,307	4,857,226	4,043,970	4,111,526	3,795,460	3,572,706	3,643,873
Project Operating	-	45,900	30,939	35,938	36,356	36,783	37,219
Total Operating Expenses	20,922,075	23,946,935	22,733,297	23,338,026	23,832,488	24,129,011	24,231,413
Debt Service							
Series 2017 & SRF 2017	2,899,759	2,088,426	2,050,641	2,053,175	2,058,058	7,317,231	7,332,251
Bonds	-	-	-	1,829,439	3,337,471	4,874,332	6,142,864
SRF 2020	-	-	-	-	487,500	975,000	1,462,500
SRF 2028	-	-	-	-	-	-	-
WIFIA 2020	-	-	-	-	1,072,298	2,144,596	3,216,893
WIFIA 2028	-	-	-	-	-	-	-
Total Debt Service	2,899,759	2,088,426	2,050,641	3,882,614	6,955,327	15,311,158	18,154,509
Interfund Loan Repayment	1,264,379	1,316,438	1,316,438	980,995	949,615	949,615	949,615
Bond & Loan Proceed Funded Projects	3,826,736	66,374,104	31,157,395	118,182,006	97,882,006	90,008,264	90,008,264
Revenue & Reserve Funded Projects	23,640,629	23,640,629	23,640,629	23,640,629	2,792,096		
Reserve Funded Debt Service	-	-	-	-	-	-	-
Reserves							
Debt Service	3,668,200	5,270,934	5,270,934	10,210,721	10,210,721	10,210,721	10,210,721
Contingencies (25% Op Uses)	4,173,442	4,760,952	4,664,597	4,797,641	5,000,168	5,129,881	5,137,580
Capital & Infrastructure (10% Service Fees)	3,418,390	3,748,783	4,123,661	4,412,317	4,677,056	4,957,680	5,205,563
Rate Stabilization	5,041,027	(2,187,864)	(7,751,780)	(18,553,581)	(1,428,086)	6,904,733	17,507,848
Total Reserves	16,301,059	11,592,804	6,307,412	867,098	18,459,859	27,203,014	38,061,712



2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
38,061,712	49,228,353	53,529,124	58,955,492	64,389,076	68,713,961	72,314,797	71,591,499	69,872,733	67,260,133
21,069,728	21,570,138	22,139,042	22,724,368	23,271,182	24,006,880	24,722,276	25,419,877	25,158,729	25,846,100
3,796,735	3,835,256	3,948,486	4,048,637	4,062,946	4,021,104	4,301,130	4,491,483	4,500,658	4,718,808
37,663	38,117	38,579	39,287	40,015	40,766	41,538	42,335	43,155	43,999
24,904,126	25,443,511	26,126,107	26,812,292	27,374,143	28,068,750	29,064,944	29,953,695	29,702,542	30,608,907
7,330,354	7,331,335	7,335,497	7,336,399	6,490,011	6,492,299	6,487,763	6,491,654	6,437,184	6,431,934
6,160,522	6,177,724	6,193,669	6,208,110	6,706,086	7,116,279	7,125,792	7,132,030	7,134,583	7,133,695
1,950,000	4,939,787	4,939,787	4,939,787	4,939,787	4,939,787	4,939,787	4,939,787	4,939,787	4,939,787
4,289,191	8,475,623	8,475,623	8,475,623	8,475,623	8,475,623	8,475,623	8,475,623	8,475,623	8,475,623
19,730,067	26,924,469	26,944,576	26,959,919	26,611,507	28,324,959	29,630,907	30,942,008	32,191,062	38,350,640
949,615	949,615	949,615	949,615	517,046	-	-	-	-	-
-	-	-	16,550,496	54,580,775	54,580,775	54,580,775	54,580,775	-	-
-	800,000	200,000	200,000	-	-	2,200,706	4,000,000	4,600,000	10,600,000
10,210,721	10,210,721	10,210,721	10,210,721	15,150,508	15,150,508	15,150,508	15,150,508	15,150,508	15,150,508
5,267,432	5,392,535	5,534,761	5,681,092	5,817,796	6,001,720	6,180,569	6,354,969	6,289,682	6,461,525
5,465,842	5,629,817	5,742,413	5,799,837	5,857,836	5,916,414	5,975,578	6,035,334	6,095,687	6,339,515
28,284,359	32,296,052	37,467,597	42,697,426	41,887,822	45,246,155	44,284,844	42,331,922	39,724,256	25,889,766
49,228,353	53,529,124	58,955,492	64,389,076	68,713,961	72,314,797	71,591,499	69,872,733	67,260,133	53,841,314



	2034	2035	2036	2037	2038
	53,841,314	47,127,417	50,904,883	52,635,816	55,308,842
	26,550,813	27,215,074	27,903,404	28,586,436	29,369,419
	5,113,487	5,001,845	4,954,304	5,117,883	5,241,838
	44,870	45,766	46,689	47,639	48,619
	31,709,170	32,262,685	32,904,397	33,751,958	34,659,876
	6,429,934	6,434,734	6,432,934	6,434,734	5,399,934
	7,129,260	7,121,970	7,110,212	7,095,531	7,076,409
	4,939,787	4,939,787	4,939,787	4,939,787	4,939,787
	4,939,787	4,939,787	4,939,787	4,939,787	4,939,787
	8,475,623	8,475,623	8,475,623	8,475,623	8,475,623
	6,429,815	6,429,815	6,429,815	6,429,815	6,429,815
	38,344,206	38,341,715	38,328,157	38,315,276	37,261,354
	-	-	-	-	-
	-	-	-	-	-
	7,400,000	2,000,000	5,206,069	5,206,069	-
	15,150,508	15,150,508	15,150,508	15,150,508	15,150,508
	6,637,703	6,803,769	6,975,851	7,146,609	7,342,355
	6,846,676	7,394,410	7,616,242	7,730,486	7,807,791
	18,492,530	21,556,197	22,893,215	25,281,239	33,978,924
	47,127,417	50,904,883	52,635,816	55,308,842	64,279,577



Section 6

Cash Flow & Coverage

Year Ending, June 30	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Rate Stabilization Fund	-	-	-	-	-	-	-	-	800,000	200,000
Gross Revenues	37,743,958	41,313,290	43,482,238	45,831,080	48,752,116	51,500,507	54,006,431	56,555,453	58,218,267	59,441,921
Operating Expenditures	20,922,075	23,946,935	22,733,297	23,338,026	23,832,488	24,129,011	24,231,413	24,904,126	25,443,511	26,126,107
Net Revenues	16,821,883	17,366,355	20,748,941	22,493,054	24,919,628	27,371,496	29,775,018	31,651,327	33,574,756	33,515,814
Debt Service	4,164,138	3,404,864	3,367,079	4,863,609	7,904,942	16,260,773	19,104,124	20,679,682	27,874,084	27,894,191
Coverage	4.04	5.10	6.16	4.62	3.15	1.68	1.56	1.53	1.20	1.20
Other Revenues & Transfers	1,501,994	4,970,884	973,375	570,870	578,075	424,528	187,804	194,997	200,098	204,745
Excess or (Shortfall)	14,159,739	4,970,884	973,375	570,870	578,075	424,528	187,804	194,997	1,000,098	404,745



2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
200,000	-	-	2,300,000	4,000,000	4,600,000	10,600,000	7,400,000	2,000,000	500,000	-	-
60,147,234	60,816,605	61,979,797	62,253,947	62,953,676	63,653,702	65,905,265	70,489,975	76,117,343	78,397,097	79,668,210	80,608,907
26,812,292	27,374,143	28,068,750	29,064,944	29,953,695	29,702,542	30,608,907	31,709,170	32,262,685	32,904,397	33,751,958	34,659,876
33,534,942	33,442,462	33,911,047	35,489,003	36,999,981	38,551,160	45,896,358	46,180,805	45,854,658	45,992,700	45,916,252	45,949,031
27,909,534	27,128,553	28,324,959	29,630,907	30,942,008	32,191,062	38,350,640	38,344,206	38,341,715	38,328,157	38,315,276	37,261,354
1.20	1.23	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.23
208,177	211,682	215,453	219,312	223,261	227,302	235,463	249,504	264,524	272,460	278,119	283,059
408,177	211,682	215,453	2,519,312	4,223,261	4,827,302	10,835,463	7,649,504	2,264,524	772,460	278,119	283,059



INFORMATION ONLY

August 6, 2019 LVMWD Regular Board Meeting

TO: Board of Directors

FROM: Finance & Administration

**Subject : GFOA Certificate of Achievement for Excellence in Financial Reporting
and Award for Popular Annual Financial Report**

SUMMARY:

The Government Finance Officers Association of the United States and Canada (GFOA) presented the District with a Certificate of Achievement for Excellence in Financial Reporting for its fiscal year ending on June 30, 2018. The certificate is provided to agencies that fulfill the requirements of the programs and demonstrate a commitment to the highest standards of government finance. In addition, the Government Finance Officers Association of the United States and Canada (GFOA) presented the District with an Award for Outstanding Achievement in Popular Annual Financial Reporting for its fiscal year ending on June 30, 2018. The certificate represents a significant accomplishment by a governmental agency and its management.

FISCAL IMPACT:

No

ITEM BUDGETED:

No

DISCUSSION:

Comprehensive Annual Financial Report:

The District's Comprehensive Annual Financial Report (CAFR) for the fiscal year ending on June 30, 2018 was awarded the Certificate of Achievement for Excellence in Financial Reporting by the GFOA. This represents the 20th straight year the District has received the award. The Certificate of Achievement for Excellence in Financial Reporting is the highest form of recognition for excellence in state and local government financial reporting. In order to

be awarded a Certificate of Achievement, a governmental agency must publish an easily readable and efficiently organized comprehensive annual financial report. The report must satisfy both Generally Accepted Accounting Principles and applicable legal requirements.

The GFOA established the Certificate of Achievement for Excellence in Financial Reporting (CAFR Program) in 1945 to encourage and assist state and local governments to go beyond the minimum requirements of Generally Accepted Accounting Principles and prepare CAFRs that evidence the spirit of transparency and full disclosure.

Popular Annual Financial Report:

The District first issued a Popular Annual Financial Report for Fiscal Year 2013-14. The GFOA has given the District an Award for Outstanding Achievement in Popular Annual Financial Reporting for the year ending on June 30, 2018. The Award for Outstanding Achievement in Popular Annual Financial Reporting is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government popular reports.

GOALS:

Ensure Effective Utilization of the Public's Assets and Money

Prepared by: Angela Saccareccia, Finance Manager

ATTACHMENTS:

CAFR Award

PAFR Award



Government Finance Officers Association

**Certificate of
Achievement
for Excellence
in Financial
Reporting**

Presented to

**Las Virgenes Municipal Water District
California**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2018

Christopher P. Morrill

Executive Director/CEO



Government Finance Officers Association

**Award for
Outstanding
Achievement in
Popular Annual
Financial Reporting**

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California**

For its Annual
Financial Report
for the Fiscal Year Ended

June 30, 2018

Christopher P. Morrill

Executive Director/CEO